

Part 3/5 Circuit Breakers





















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INCL. AVAILABILITY INFORMATION



Ex stock

General Information

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- ✓ Over 12,000m² indoor storage space and an outdoor cable storage space of 2,500m²
- More than 15,000 items are stored ready for shipping
- Professional warehouse management by our top-trained staff



Look out for the icon signalling prompt availability for delivery

GENERAL INFORMATION

- All **dimensioned drawings** are displayed within the confines of available space on the page and are only intended as a guide.
- All circuit diagrams are schematic wiring diagrams which are intended to allow better understanding of the function, and will need to be edited/added to during the course of project planning.
- All images represent samples of the product and are intended for information purposes only.

Unless otherwise stipulated, the current version of the General Terms of Delivery issued by The Association of the Austrian Electrical and Electronics Industries "FEEI" shall apply. You can find a copy of these at the end of this catalogue.

No liability for errors in text, type or images; we reserve the right to make changes to technical specifications of the product range.

The user information contained in this catalogue reflect the opinion of the company at the time of writing. The information contained in it was assembled on the basis of published norms, specialist industry presentations, specialist literature and in-house expertise. The content is for informational purposes only and has no validity in law.



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Moulded Case Circuit Breakers MB, fix installed





Air Circuit Breaker MO, fix installed



■ Load Switches MC, fix installed



■ Moulded Case Circuit Breakers, plug-in
■ Load Switches MC, drive-out



Load Switches ML, fix installed



Circuit Breakers and Load Switches

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■ Moulded Case Circuit Breakers MB, fix installed









MB34023

Schrack-Info

• MCCB's type MB, size 1-3, 3 and 4-pole, 16 - 400A, fix installed

MCCB MB Size 1 - 3-pole, 15kA

MB 116731 B

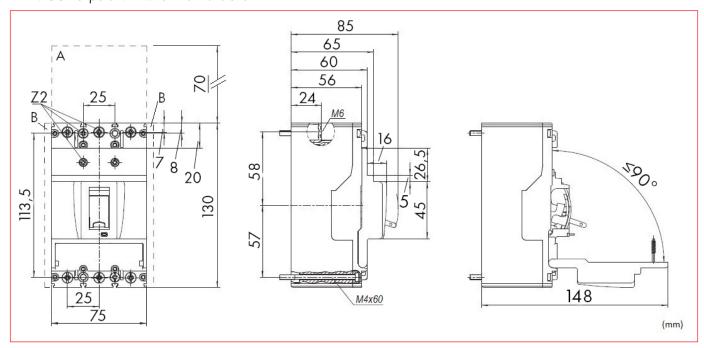
Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release
- Box terminals
- Switching capacity 15kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 16A to 125A

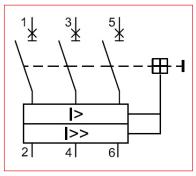
	with thermomagnetic release unit		
Rated current I _n	16 - 125A		
Rated voltage U _e	415VAC		
Adjustable overload release I _r	fix		
Adjustable short circuit release l _i	I _n 16, 20A: fix, 256 - 384A I _n 25 - 40A: fix, 320 - 480A I _n 50, 63A: fix, 480 - 720A I _n 80 - 125A: fix, 800 - 1200A		
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _{cu} at 240V 50/60Hz	30kA		
I _{cu} at 415V 50/60Hz	15kA		
I _{cs} at 240V 50/60Hz	18kA		
I _s at 415V 50/60Hz	7.5kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

MCCB MB Size 1 - 3-pole, 15kA

■ MCCB 3-pole MB1..731B dimensions



- $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts
- B) Minimum distance to other isolated parts Omm; Minimum distance to other grounded parts 10mm



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
16 to 125A with thermomagnetic release unit		
Circuit Breaker MB1, 15kA, box-terminal, 16A, 3-pole	MB1D-A	MB116731B
Circuit Breaker MB1, 15kA, box-terminal, 20A, 3-pole	MB1D-A	MB 120731 B
Circuit Breaker MB1, 15kA, box-terminal, 25A, 3-pole	MB1D-A	MB125731B
Circuit Breaker MB1, 15kA, box-terminal, 32A, 3-pole	MB1D-A	MB132731B
Circuit Breaker MB 1, 15kA, box-terminal, 40A, 3-pole	MB1D-A	MB140731B
Circuit Breaker MB1, 15kA, box-terminal, 50A, 3-pole	MB1D-A	MB150731B
Circuit Breaker MB1, 15kA, box-terminal, 63A, 3-pole	MB1D-A	MB163731B
Circuit Breaker MB 1, 15kA, box-terminal, 80A, 3-pole	MB1D-A	MB180731B
Circuit Breaker MB1, 15kA, box-terminal, 100A, 3-pole	MB1D-A	MB110731B
Circuit Breaker MB1, 15kA, box-terminal, 125A, 3-pole	MB1D-A	MB112731B



■ MCCB MB Size 1 - 3-pole, 18kA



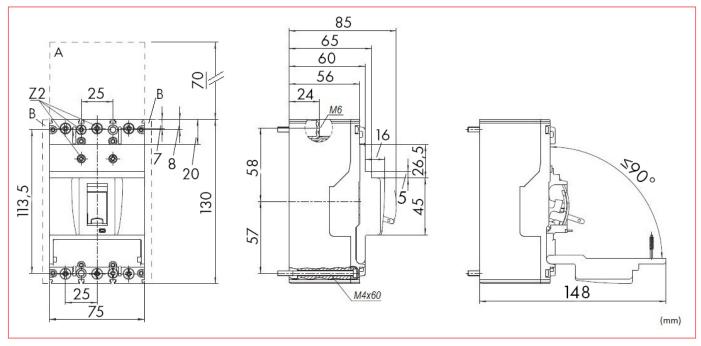
MB125831B

Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release
- Box terminals (MB1xxxxxB) or screw connections (MB1xxxxxC)
- Switching capacity 18kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 16A to 125A

with thermomagnetic release u			
Rated current In	16 - 125A		
Rated voltage U _e	415VAC		
Adjustable overload release I _r	fix		
Adjustable short circuit release I;	I, 16, 20A: fix, 256 - 384A I, 25 - 40A: fix, 320 - 480A I, 50, 63A: fix, 480 - 720A I, 80 - 125A: fix, 800 - 1200A		
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _{cu} at 240V 50/60Hz	30kA		
I _{cu} at 415V 50/60Hz	18kA		
I _{cs} at 240V 50/60Hz	15kA		
I _s at 415V 50/60Hz	9kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

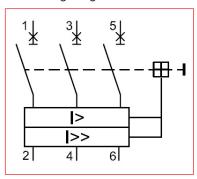
MCCB 3-pole MB1..831B/MB1..831C dimensions



- $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts
- B) Minimum distance to other isolated parts Omm; Minimum distance to other grounded parts 10mm



■ MCCB MB Size 1 - 3-pole, 18kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
16 to 125A with thermomagnetic release unit			
Circuit Breaker MB1, 18kA, box-terminal, 25A, 3-pole	MB1E-A		MB125831B
Circuit Breaker MB1, 18kA, box-terminal, 32A, 3-pole	MB1E-A		MB132831B
Circuit Breaker MB1, 18kA, box-terminal, 40A, 3-pole	MB1E-A		MB140831B
Circuit Breaker MB1, 18kA, box-terminal, 50A, 3-pole	MB1E-A		MB150831B
Circuit Breaker MB1, 18kA, box-terminal, 63A, 3-pole	MB1E-A		MB163831B
Circuit Breaker MB1, 18kA, box-terminal, 80A, 3-pole	MB1E-A	000 0-0	MB180831B
Circuit Breaker MB1, 18kA, box-terminal, 100A, 3-pole	MB1E-A	000 0-0	MB110831B
Circuit Breaker MB1, 18kA, box-terminal, 125A, 3-pole	MB1E-A	000 0-0	MB112831B
Circuit Breaker MB1, 18kA, cable-lug, 16A, 3-pole	MB1E-A		MB106831C
Circuit Breaker MB1, 18kA, cable-lug, 20A, 3-pole	MB1E-A		MB120831 C
Circuit Breaker MB1, 18kA, cable-lug, 25A, 3-pole	MB1E-A		MB125831C
Circuit Breaker MB1, 18kA, cable-lug, 32A, 3-pole	MB1E-A		MB132831C
Circuit Breaker MB1, 18kA, cable-lug, 40A, 3-pole	MB1E-A		MB140831C
Circuit Breaker MB1, 18kA, cable-lug, 50A, 3-pole	MB1E-A		MB150831C
Circuit Breaker MB1, 18kA, cable-lug, 63A, 3-pole	MB1E-A		MB163831C
Circuit Breaker MB1, 18kA, cable-lug, 80A, 3-pole	MB1E-A		MB180831C
Circuit Breaker MB1, 18kA, cable-lug, 100A, 3-pole	MB1E-A		MB110831C
Circuit Breaker MB1, 18kA, cable-lug, 125A, 3-pole	MB1E-A		MB112831C



■ MCCB MB Size 1 - 3-pole, 25kA

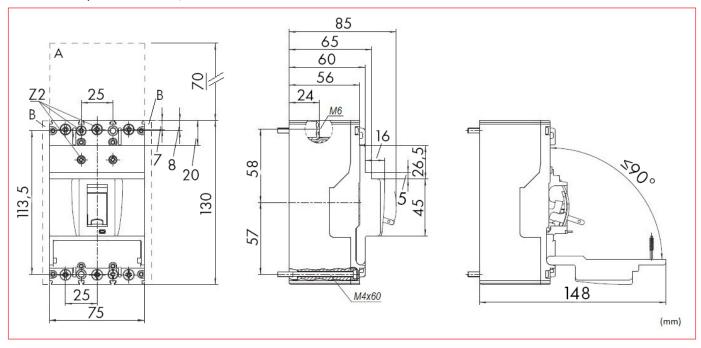


Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release
- Box terminals (MB1xxxxxB) or screw connections (MB1xxxxxB)
- Switching capacity 25kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 16A to 100A

with thermomagnetic release u			
Rated current In	16 - 100A		
Rated voltage U _e	415VAC		
Adjustable overload release I,	fix		
Adjustable short circuit release l _i	I, 16, 20A: fix, 256 - 384A I, 25 - 40A: fix, 320 - 480A I, 50, 63A: fix, 480 - 720A I, 80 - 125A: fix, 800 - 1200A		
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _{cu} at 240V 50/60Hz	50kA		
I _{cu} at 415V 50/60Hz	25kA		
I _{cs} at 240V 50/60Hz	25kA		
I _s at 415V 50/60Hz	13.5kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

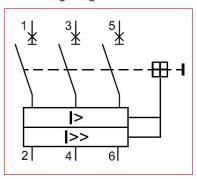
■ MCCB 3-pole MB1..131B/MB1..131C dimensions



- $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts
- B) Minimum distance to other isolated parts Omm; Minimum distance to other grounded parts 10mm



■ MCCB MB Size 1 - 3-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE C	ORDER NO.
16 to 100A with thermomagnetic release unit			
Circuit Breaker MB1, 25kA, box-terminal, 20A, 3-pole	MB1B-A	٨	MB 120131 B
Circuit Breaker MB1, 25kA, box-terminal, 25A, 3-pole	MB1B-A	٨	MB 125131 B
Circuit Breaker MB1, 25kA, box-terminal, 32A, 3-pole	MB1B-A	٨	MB 132131 B
Circuit Breaker MB1, 25kA, box-terminal, 40A, 3-pole	MB1B-A	٨	MB140131B
Circuit Breaker MB1, 25kA, box-terminal, 50A, 3-pole	MB1B-A	٨	MB150131B
Circuit Breaker MB1, 25kA, box-terminal, 63A, 3-pole	MB1B-A	000 0-0	AB 163131 B
Circuit Breaker MB1, 25kA, box-terminal, 80A, 3-pole	MB1B-A	000 0-6	AB 180131 B
Circuit Breaker MB1, 25kA, box-terminal, 100A, 3-pole	MB1B-A	333 0-6	AB110131B
Circuit Breaker MB1, 25kA, cable-lug, 16A, 3-pole	MB1B-A	٨	MB106131C
Circuit Breaker MB1, 25kA, cable-lug, 20A, 3-pole	MB1B-A	٨	MB120131 C
Circuit Breaker MB1, 25kA, cable-lug, 25A, 3-pole	MB1B-A	٨	ИВ 125131 С
Circuit Breaker MB1, 25kA, cable-lug, 32A, 3-pole	MB1B-A	٨	ИВ 132131 C
Circuit Breaker MB1, 25kA, cable-lug, 40A, 3-pole	MB1B-A	٨	MB140131C
Circuit Breaker MB1, 25kA, cable-lug, 50A, 3-pole	MB1B-A	٨	MB150131C
Circuit Breaker MB1, 25kA, cable-lug, 63A, 3-pole	MB1B-A	٨	MB163131C
Circuit Breaker MB1, 25kA, cable-lug, 80A, 3-pole	MB1B-A	٨	MB180131C
Circuit Breaker MB1, 25kA, cable-lug, 100A, 3-pole	MB1B-A	٨	ИВ 110131 C



MCCB MB Size 1 - 4-pole, 18kA



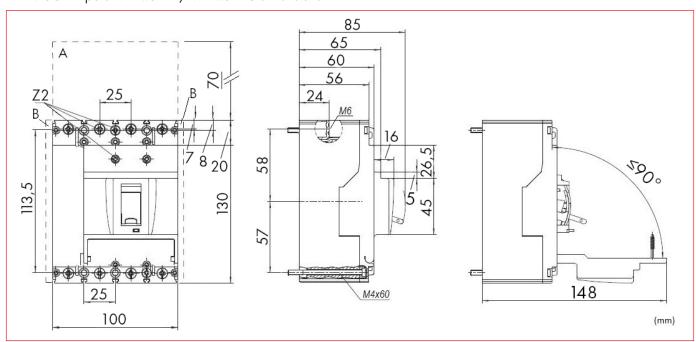
MB180841C

Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release
- Box terminals (MB1xxxxxB) or screw connections (MB1xxxxxC)
- Switching capacity 18kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 80A to 100A

	with thermomagnetic release unit	
Rated current In	80 - 100A	
Rated voltage U _e	415VAC	
Adjustable overload release I _r	fix	
Adjustable short circuit release I _i	I _n 80, 100A: fix, 800 - 1200A	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 240V 50/60Hz	36kA	
I _w at 415V 50/60Hz	18kA	
I _{cs} at 240V 50/60Hz	15kA	
I _{cs} at 415V 50/60Hz	9kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

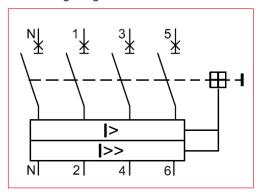
■ MCCB 4-pole MB1..841B/MB1..841C dimensions



- A) Blow out area, minimum distance to other parts
- B) Minimum distance to other isolated parts Omm; Minimum distance to other grounded parts 10mm



■ MCCB MB Size 1 - 4-pole, 18kA



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
80 to 100A with thermomagnetic release unit		
Circuit Breaker MB1, 18kA, box terminal, 80A, 4-pole	MB1E-4-A	MB180841B
Circuit Breaker MB1, 18kA, box terminal, 100A, 4-pole	MB1E-4-A	MB110841B
Circuit Breaker MB1, 18kA, cable lug, 80A, 4-pole	MB1E-4-A	MB180841C
Circuit Breaker MB1, 18kA, cable lug, 100A, 4-pole	MB1E-4-A	MB110841C



■ MCCB MB Size 2 - 3-pole, 25kA

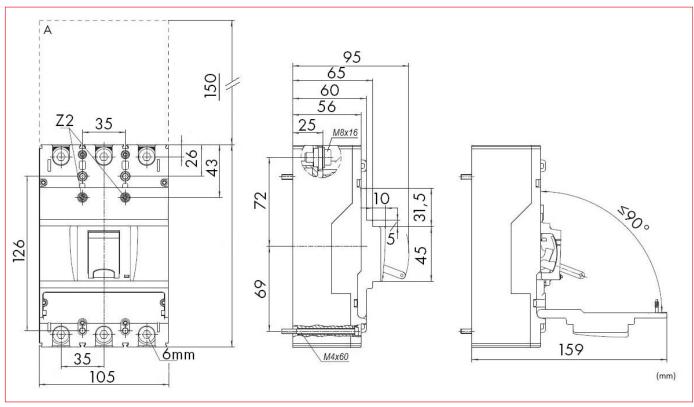


Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release (1400-2100A)
- Screw connections
- Switching capacity 25kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 125A to 250A

with thermomagnetic release unit Rated current I_r 125 - 250A Rated voltage U_e 415VAC Adjustable overload release I, fix, 1400 - 2100A Adjustable short circuit release Ii Rated short-circuit breaking capacity I_{cu}/I_{cs} I_{cu} at 415V 50/60Hz 25kA I_{cs} at 415V 50/60Hz 12.5kA -25°C to +70°C Ambient temperature (operation) Mounting position vertical and 90° in all directions IEC/EN 60947-2, VDE 0660 Standards and regulations

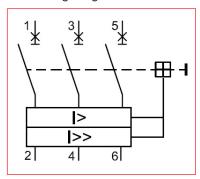
■ MCCB 3-pole MB2..131 C dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow-out area, minimum distance to other parts



■ MCCB MB Size 2 - 3-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 250A with thermomagnetic release unit			
Circuit Breaker MB2, 25kA, cable-lug, 125A, 3-pole	MB2B-A		MB212131 C
Circuit Breaker MB2, 25kA, cable-lug, 160A, 3-pole	MB2B-A	988 0-6	MB216131 C
Circuit Breaker MB2, 25kA, cable-lug, 200A, 3-pole	MB2B-A	000 0-0	MB220131C
Circuit Breaker MB2, 25kA, cable-lug, 250A, 3-pole	MB2B-A	300 0-6	MB225131 C



MCCB MB Size 2 - 3-pole, 36kA

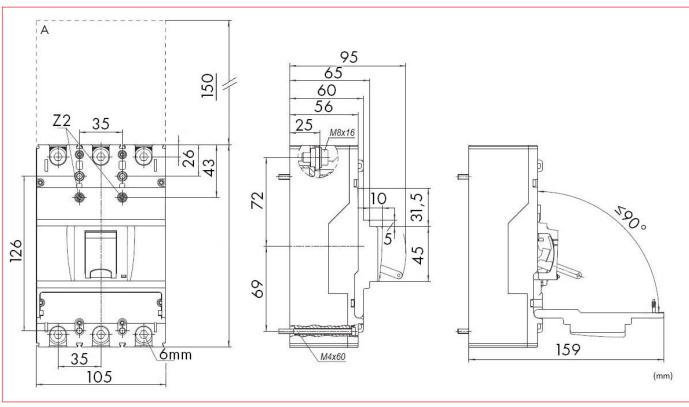


Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release (1400-2100A)
- Screw connections
- Switching capacity 36kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 125A to 250A

with thermomagnetic release unit Rated current I_r 125 - 250A Rated voltage U_e 415VAC Adjustable overload release I, fix, 1400 - 2100A Adjustable short circuit release Ii Rated short-circuit breaking capacity I_{cu}/I_{cs} I_{cu} at 415V 50/60Hz 36kA I_{cs} at 415V 50/60Hz 9kA -25°C to +70°C Ambient temperature (operation) Mounting position vertical and 90° in all directions IEC/EN 60947-2, VDE 0660 Standards and regulations

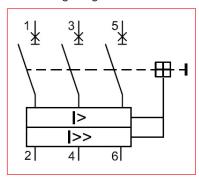
■ MCCB 3-pole MB2..431 C dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow-out area, minimum distance to other parts



■ MCCB MB Size 2 - 3-pole, 36kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 250A with thermomagnetic release unit			
Circuit Breaker MB2, 36kA, cable-lug, 125A, 3-pole	MB2C-A		MB212431 C
Circuit Breaker MB2, 36kA, cable-lug, 160A, 3-pole	MB2C-A		MB216431 C
Circuit Breaker MB2, 36kA, cable-lug, 200A, 3-pole	MB2C-A		MB220431C
Circuit Breaker MB2, 36kA, cable-lug, 250A, 3-pole	MB2C-A	000 0-0	MB225431C



MCCB MB Size 3 - 3-pole, 36kA/50kA

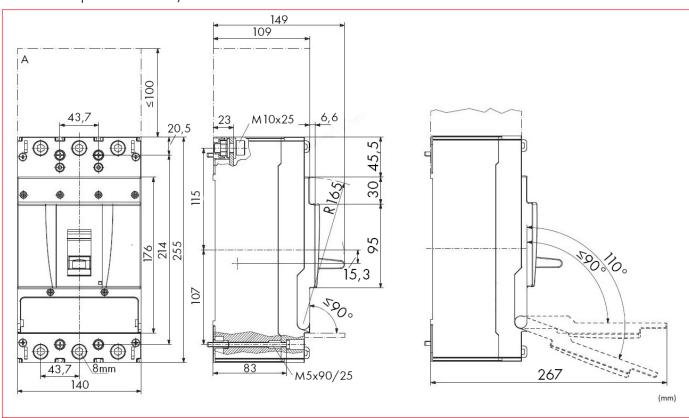


Schrack-Info

- For System and Line Protection
- Fixed overload release
- Fixed short circuit release (2600-3800A)
- Screw connections
- Switching capacity 36/50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 400A

	with thermomagnetic release unit		
	МВЗС	MB3N	
Rated current In	400A		
Rated voltage U _e	440VAC		
Adjustable overload release I,	fix		
Adjustable short circuit release I _i	fix, 2600 - 38	00A	
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _ω at 240V 50/60Hz	85kA	100kA	
I _w at 415V 50/60Hz	36kA	50kA	
I _{cu} at 440V 50/60Hz	25kA	36kA	
I _{cs} at 240V 50/60Hz	42,5kA	50kA	
I _s at 415V 50/60Hz	18kA	25kA	
I _{cs} at 440V 50/60Hz	12.5kA	18kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

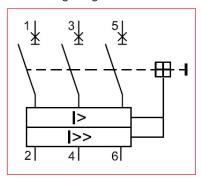
MCCB 3-pole MB3..431C/MB3..231C dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow-out area, minimum distance to other parts



■ MCCB MB Size 3 - 3-pole, 36kA/50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400A			
Circuit Breaker MB3, 36kA, cable-lug, 400A, 3-pole	МВЗС-А	000 0-0	MB340431C
Circuit Breaker MB3, 50kA, cable-lug, 400A, 3-pole	MB3N-A	355 0- 5	MB340231 C



■ MCCB MB Size 1 to 3 - Accessories









DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Phase barrier	MB1		MB190001
Terminal Cover for MB1 3-pole	MB1		MB190003
Terminal Cover for MB1 4-pole	MB1		MB190004
Shunt Trip Relay for MB1, 2, 3 230-240V-AC	MB1	000 0-0	MB19A230
Shunt Trip Relay for MB1, 2, 3 400-415V-AC	MB1		MB19A400
Undervoltage Relay for MB1, 2, 3 24V-DC	MB1		MB19U024D
Undervoltage Relay for MB1, 2, 3 230-240V-AC	MB1		MB19U230
Terminal Cover for MB2 3-pole	MB2		MB290003

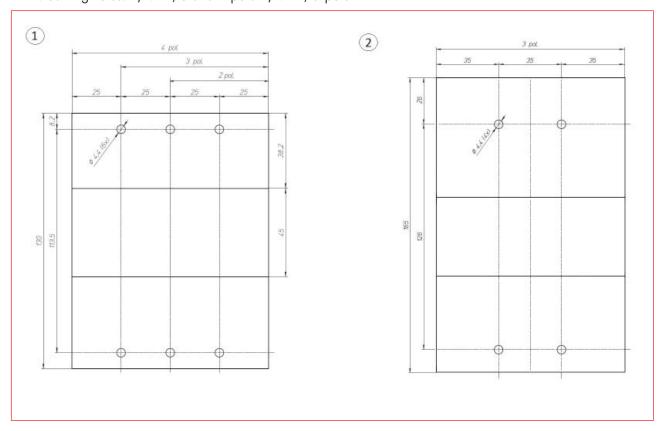
■ Technical data MB1, MB2, MB3

Mechanical specifications	Rated current max.125 A MB1	Rated current max.250 A MB2	Rated current max.400 A MB3
Standards	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2
Number of poles	3, 4	3	3
Device width [mm]	3-pole: 75, 4-pole: 100	3-pole: 105	3-pole: 140
Device height [mm]	130	165	255
Device depth [mm]	84.7	95	149
Terminals	Lift terminal, cable lug	Cable lug	-
Terminal capacity lift terminal [mm²]	rigid (solid/stranded) and flexible wire (2.5 - 50)	-	-
Terminal capacity ring tongue [mm²]	Diameter: max. 15	Diameter: max. 24	-
Busbar thickness [mm]	-	max. 8	as required
Terminal screw	M6 (Pozidriv PZ2)	M8	M10
Terminal torque [Nm]	4	14	30
Degree of Protection (DIN VDE 0470)	Built-in behind panel IP40	Built-in behind panel IP40	Built-in behind panel IP40
Climatic conditions	according to IEC 68-2 (2555°C / 9095% RH)	according to IEC 68-2 (2555°C / 9095% RH)	according to IEC 68-2 (2555°C / 9095% RH)
Ambient temperature			
Storage [°C]	-35 + 85	-35 + 85	-35 + 85
Operation [°C]	-25 + 70	-25 + 70	-25 + 70
Mounting Positions	Vertical and 90° in all directions	Vertical and 90° in all directions	Vertical and 90° in all directions
Protection System			
Enclosures	With insulating surround: IP40	With insulating surround: IP40	With insulating surround: IP40
Number of mechanical operating cycles	> 10.000	> 8.000	> 5.000
Pollution degree	3	3	3
Electrical specifications			
Maximum LV h.b.c. fuse [A gG/gL]	200	315	-
Rated operational voltage U _e [V AC]	400/415, 50/60 Hz	400/415, 50/60 Hz	440, 50/60 Hz
Rated current In [A]	16 up to 125	125, 160, 200, 250	250 up to 400
Rated impulse withstand voltage U_{imp} [V]	6.000 (1.2/50 µsec)	6.000 (1.2/50 µsec)	8.000 (1.2/50 µsec)
Overvoltage category	III	III	III
Rated insulation voltage U_i [V]	690	690	690
For use in IT electrical power networks [V]	400/415	400/415	440
Direction of incoming supply	As required	As required	As required
Number of electrical operating cycles	> 1.500	1.000	> 1.000
Tripping characteristic			
Conventional non-tripping current Int	1.05 I _n	1.05 I _n	1.05 I _n
Conventional tripping current ,	1.30 I _n	1.30 I _n	1.30 I _n
Reference temperature [°C]	30	30	40

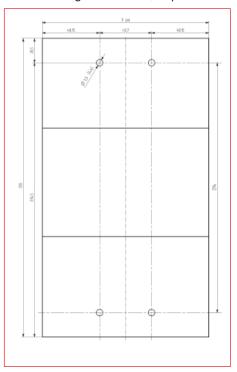


General and mechanical data MB

■ Mounting holes: 1) MB1, 3 and 4-pole 2) MB2, 3-pole



■ Mounting holes: MB3, 3-pole



Screws and torques for MB1, 2 and 3 $\,$

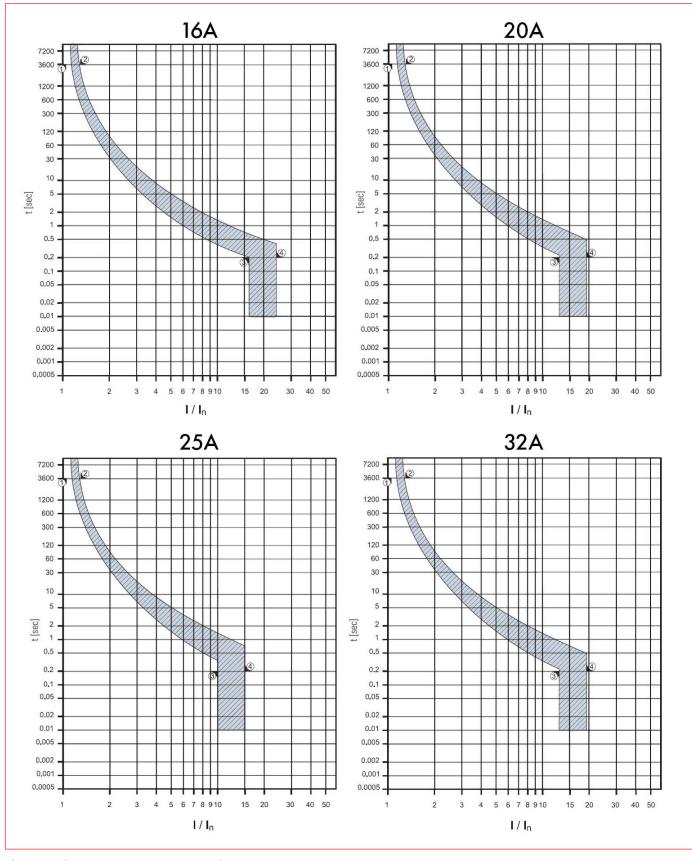
MCCB	Screw for connecting cable lug or bus-bar	torque
MB1C	M6 / Pozidriv, size PZ2	4Nm
MB2C	M8 / hexagon socket screw, key size 6mm	14Nm
MB3C	M10 / hexagon socket screw, key size 8mm	30Nm

мссв	Terminal screw of box-terminal BT	torque
MB1B	BT, 1x50mm², built in, M6 Pozidriv PZ2	4Nm



Tripping characteristics MB

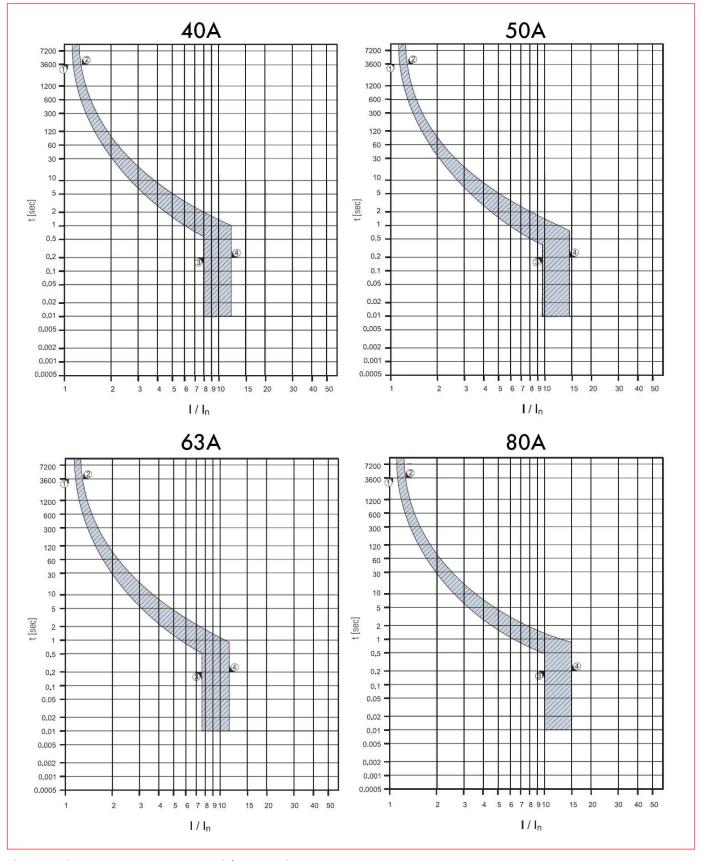
■ Tripping characteristics 16A...32A according to IEC/EN 60947-2



- 1) Conventional "non-tripping current"; I_{nt} = 1.05 I_{n} ; $t > 1\,h$
- 2) Conventional tripping current; $I_t = 1.3 I_n$; t < 1h
- 3) 0.8 x nominal short current release
- 4) 1.2 x nominal short current release



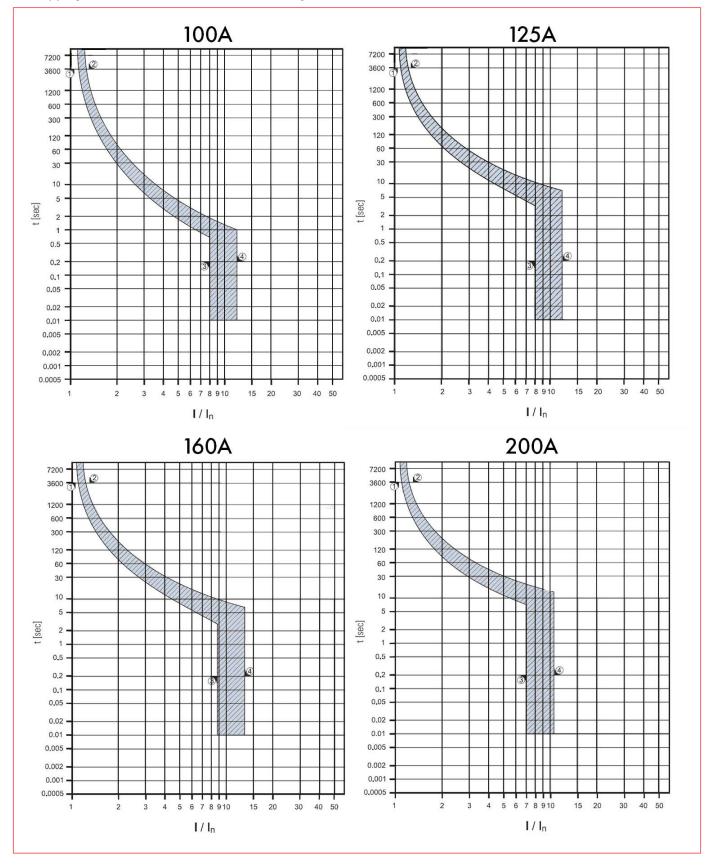
- Tripping characteristics MB
- Tripping characteristics 40A...80A according to IEC/EN 60947-2



- 1) Conventional "non-tripping current"; I_{nt} = 1.05 I_n ; t > 1 h; from 80A t > 2h
- 2) Conventional tripping current; l_t = 1.3 $l_n;\, t < 1\,h;$ from 80A t < 2h
- 3) 0.8 x nominal short current release
- 4) 1.2 x nominal short current release



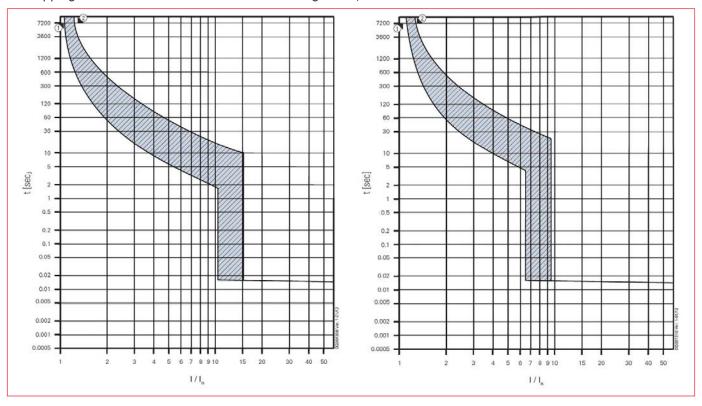
- Tripping characteristics MB
- Tripping characteristics 100A...200A according to IEC/EN 60947-2





Tripping characteristics MB

■ Tripping characteristics 250A und 400A according to IEC/EN 60947-2



¹⁾ Conventional "non-tripping current"; I_{nt} = 1.05 I_{n} ; t > 2h

²⁾ Conventional tripping current; $I_t = 1.3 I_n$; t < 2h

^{3) 0.8} x nominal short current release

^{4) 1.2} x nominal short current release

■ Moulded Case Circuit Breakers MC, fix installed

























Schrack-Info

MC363342

• MCCB's type MC, size 1-4, 1, 3 or 4-pole, 16 - 1600A

■ MCCB MC Size 1 - 1-pole, 25kA

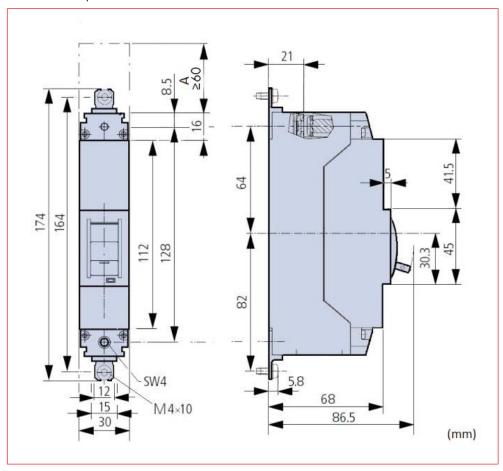


Schrack-Info

- For System and Line Protection
- Fixed overload and short circuit release
- Switching capacity Icu 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 16A to 125A

	with thermomagnetic release unit	
Rated current I	16 - 125A	
Rated voltage U _e	400VAC	
Adjustable overload release I	fix	
Adjustable short circuit release I	fix, 8 - 10 x I	
Rated short-circuit breaking capacity I / I		
I _{cu} at 240V 50/60Hz	30kA	
I at 400V 50/60Hz	25kA	
I _{st} at 690V 50/60Hz	-	
I _s at 240V 50/60Hz	30kA	
I _s at 400V 50/60Hz	25kA	
I _g at 690V 50/60Hz	-	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

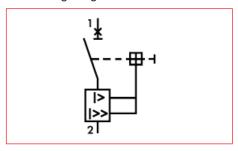
■ MCCB 1-pole MC1..118 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 1-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
16 to 125A with fixed thermomagnetic release unit			
Circuit Breaker type AF, 1-pole, 25kA, 16A	MC1B-1-AF16		MC115118
Circuit Breaker type AF, 1-pole, 25kA, 20A	MC1B-1-AF20		MC120118
Circuit Breaker type AF, 1-pole, 25kA, 25A	MC1B-1-AF25		MC125118
Circuit Breaker type AF, 1-pole, 25kA, 32A	MC1B-1-AF32		MC132118
Circuit Breaker type AF, 1-pole, 25kA, 40A	MC1B-1-AF40		MC140118
Circuit Breaker type AF, 1-pole, 25kA, 50A	MC1B-1-AF50		MC150118
Circuit Breaker type AF, 1-pole, 25kA, 63A	MC1B-1-AF63		MC163118
Circuit Breaker type AF, 1-pole, 25kA, 80A	MC1B-1-AF80		MC180118
Circuit Breaker type AF, 1-pole, 25kA, 100A	MC1B-1-AF100		MC110118
Circuit Breaker type AF, 1-pole, 25kA, 125A	MC1B-1-AF125		MC112118



MCCB MC Size 1 - 3-pole, 25kA

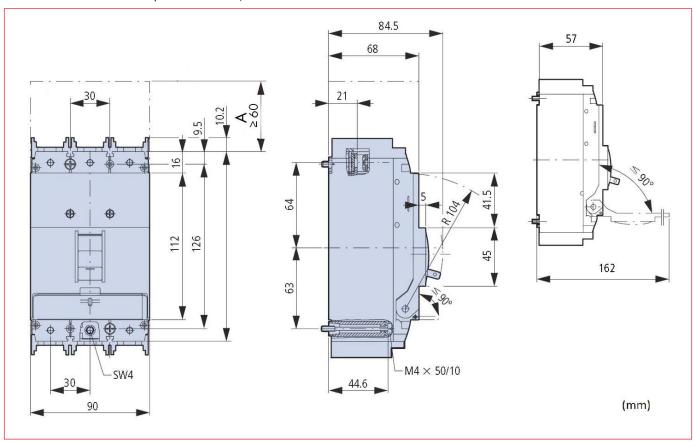


Schrack-Info

- For System and Line Protection, Motor Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 160A

	with thermomagnetic release unit	with motor protection		
Rated current I	20 - 160A	40 - 100A		
Rated voltage U	400VAC	400VAC		
Adjustable overload release I	0.8 - 1 x l	0.8 - 1 x I		
Adjustable short circuit release I _i	I 20A, 25A, 32A, 160A: fix, 350A I 40A: 8 - 10 x I I 63 - 125A: 6 - 10 x I	I 40A, 50A, 63A, 80A: 8 - 14 x I 100A: 8 - 12.5 x I 1		
Rated short-circuit breaking capacity I , /I ,				
I _{cu} at 240V 50/60Hz	30	0kA		
I at 400V 50/60Hz	25	kA		
I _{ct} at 690V 50/60Hz		-		
I _g at 240V 50/60Hz	30	0kA		
I _z at 400V 50/60Hz	25	kA		
I_ at 690V 50/60Hz		-		
Ambient temperature (operation)	-25°C to	-25°C to +70°C		
Mounting position	vertical and 90°	vertical and 90° in all directions		
Standards and regulations	IEC/EN 6094	7-2, VDE 0660		

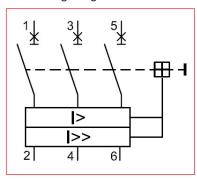
■ Dimensions: MCCB 3-pole MC1..131/MC1..136 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 3-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 160A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 20A	MC1B-A20	000 0-0	MC120131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 25A	MC1B-A25	555 0- 8	MC125131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 32A	MC1B-A32	000 0-0	MC132131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 40A	MC1B-A40	000 0-0	MC140131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 50A	MC1B-A50	555 0- 0	MC150131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 63A	MC1B-A63	355 0- 0	MC163131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 80A	MC1B-A80	000 0-0	MC180131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 100A	MC1B-A100	000 0-0	MC110131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 125A	MC1B-A125	000 0-0	MC112131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 160A	MC1B-A160	333 0- 0	MC116131
40 to 100A with motor protection			
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 40A	MC1B-M40		MC140136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 50A	MC1B-M50		MC150136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 63A	MC1B-M63	000 0-0	MC163136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 80A	MC1B-M80	000 0-0	MC180136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 100A	MC1B-M100	988 0-0	MC110136



MCCB MC Size 1 - 3-pole, 50kA

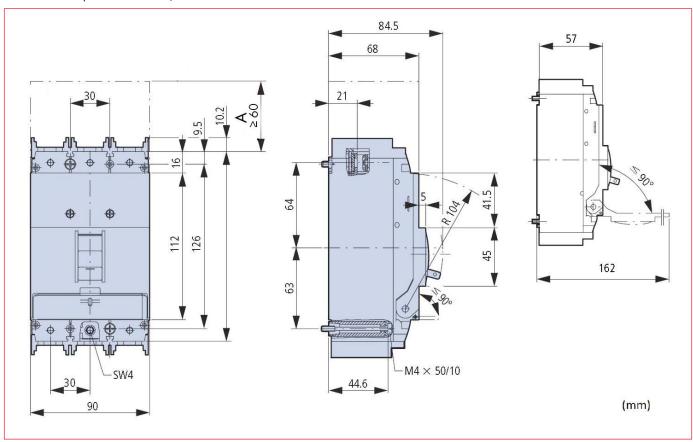


Schrack-Info

- For System and Line Protection, Motor Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 160A

	with thermomagnetic release unit	with motor protection			
Rated current I	20 - 160A	40 - 100A			
Rated voltage U	690VAC	690VAC			
Adjustable overload release I	0.8 - 1 x I	0.8 - 1 x I			
Adjustable short circuit release I _i	I 20A, 25A, 32A, 160A: fix, 350A I 40A: 8-10 x I I 63-125A: 6-10 x I	I 40A, 50A, 63A, 80A: 8-14 x I I 100A: 8-12.5 x I I			
Rated short-circuit breaking capacity I / I _ s					
I _{cu} at 240V 50/60Hz	85	kA			
I _a at 415V 50/60Hz	50	50kA			
I _a at 690V 50/60Hz	10	kA			
I _g at 240V 50/60Hz	85	kA			
I _E at 415V 50/60Hz	50	kA			
I at 690V 50/60Hz	7.5	kA			
Ambient temperature (operation)	-25°C to	-25°C to +70°C			
Mounting position	vertical and 90° in all directions				
Standards and regulations	IEC/EN 60947-2, VDE 0660				

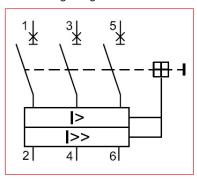
■ MCCB 3-pole MC1..231/MC1..236 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 3-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 160A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 20A	MC1N-A20	000 0-0	MC120231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 25A	MC1N-A25		MC125231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 32A	MC1N-A32	000 0-0	MC132231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 40A	MC1N-A40	333 0-5	MC140231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 50A	MC1N-A50	999 0-0	MC150231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 63A	MC1N-A63	999 0-0	MC163231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 80A	MC1N-A80	000 0-0	MC180231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 100A	MC1N-A100	333 0-0	MC110231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 125A	MC1N-A125	000 0-0	MC112231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 160A	MC1N-A160	333 0-0	MC116231
40 to 100A with motor protection			
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 40A	MC1N-M40		MC140236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 50A	MC1N-M50		MC150236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 63A	MC1N-M63		MC163236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 80A	MC1N-M80		MC180236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 100A	MC1N-M100		MC110236



■ MCCB MC Size 1 - 3-pole, 100kA

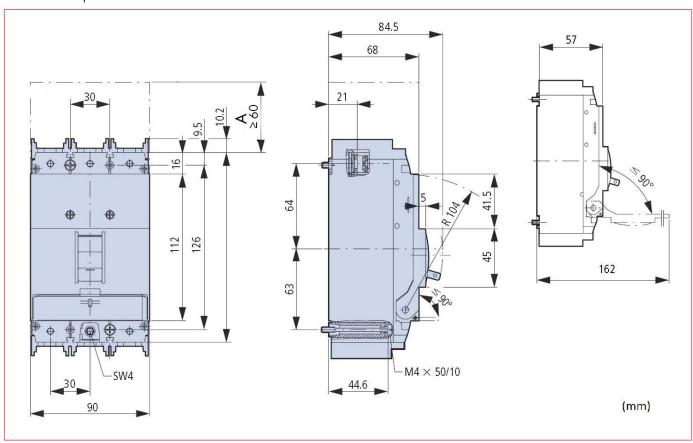


Schrack-Info

- For System and Line Protection, Motor Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 100kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 160A

	with thermomagnetic release unit	with motor protection	
Rated current I	20 - 160A	40 - 100A	
Rated voltage U	690VAC	690VAC	
Adjustable overload release I	0.8 - 1	0.8 - 1 x l	
Adjustable short circuit release I	I 20A, 25A, 32A, 160A: fix, 350A I 40A: 8 - 10 x I I 63 - 125A: 6 - 10 x I	I 40A, 50A, 63A, 80A: 8-14 x I I 100A: 8-12.5 x I	
Rated short-circuit breaking capacity l _w /l _s			
I _{cu} at 240V 50/60Hz	100kA		
I at 415V 50/60Hz	100kA		
I _{cu} at 690V 50/60Hz	10kA		
I _s at 240V 50/60Hz	100kA		
I _g at 415V 50/60Hz	50kA		
I at 690V 50/60Hz	7.5kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

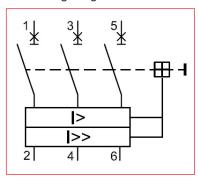
■ MCCB 3-pole MC1..331 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 3-pole, 100kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 160A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 20A	MC1H-A20		MC120331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 25A	MC1H-A25		MC125331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 32A	MC1H-A32		MC132331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 40A	MC1H-A40		MC140331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 50A	MC1H-A50		MC150331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 63A	MC1H-A63		MC163331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 80A	MC1H-A80		MC180331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 100A	MC1H-A100		MC110331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 125A	MC1H-A125		MC112331
Moulded Case Circuit Breaker type A, 3-pole, 100kA, 160A	MC1H-A160		MC116331
40 to 100A with motor protection			
Moulded Case Circuit Breaker type M, 3-pole, 100kA, 40A	MC1H-M40		MC140336
Moulded Case Circuit Breaker type M, 3-pole, 100kA, 50A	MC1H-M50		MC150336
Moulded Case Circuit Breaker type M, 3-pole, 100kA, 63A	MC1H-M63		MC163336
Moulded Case Circuit Breaker type M, 3-pole, 100kA, 80A	MC1H-M80		MC180336
Moulded Case Circuit Breaker type M, 3-pole, 100kA, 100A	MC1H-M100		MC110336



MCCB MC Size 1 - 4-pole, 25kA



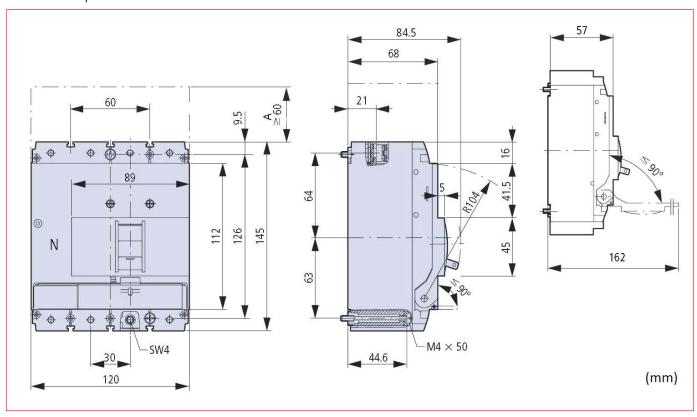
MC120141

Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 160A

	with thermomagnetic release unit	
Rated current I	20-160A	
Rated voltage U	400VAC	
Adjustable overload release I,	0.8 - 1 x l	
Adjustable short circuit release I,	l 20A, 25A, 32A, 160A: fix, 350A l 40A: 8-10 x l l 63-125A: 6-10 x l	
Rated short-circuit breaking capacity I , I ,		
I _{,,,} at 240V 50/60Hz	30kA	
I at 400V 50/60Hz	25kA	
I at 690V 50/60Hz	-	
I at 240V 50/60Hz	30kA	
I _s at 400V 50/60Hz	25kA	
I _g at 690V 50/60Hz	-	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

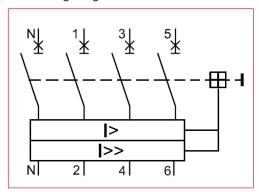
■ MCCB 4-pole MC1..141 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 4-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 160A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 20A	MC1B-4-A20	000 0-0	MC120141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 25A	MC1B-4-A25	999 0-8	MC125141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 32A	MC1B-4-A32	000 0-0	MC132141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 40A	MC1B-4-A40	355 0- 8	MC140141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 50A	MC1B-4-A50	000 0-0	MC150141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 63A	MC1B-4-A63	300 0-0	MC163141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 80A	MC1B-4-A80	000 O-0	MC180141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 100A	MC1B-A100	300 0-0	MC110141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 125A	MC1B-4-A125	000 0-0	MC112141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 160A	MC1B-4-A160	383 0= 6	MC116141



MCCB MC Size 1 - 4-pole, 50kA

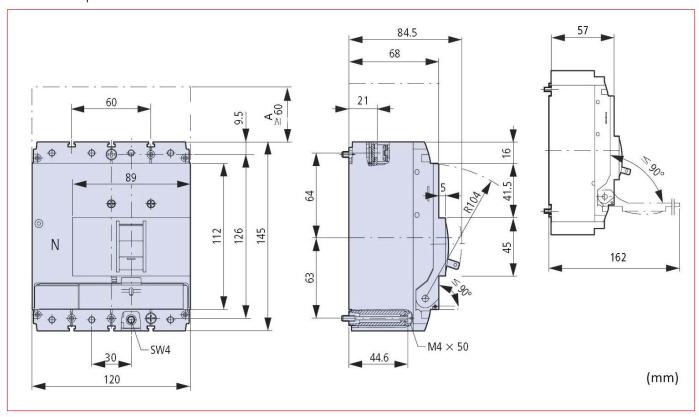


Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 160A

	with thermomagnetic release unit
Rated current I	20 - 160A
Rated voltage U	690VAC
Adjustable overload release I	0.8 - 1 x l
Adjustable short circuit release I;	I 20A, 25A, 32A, 160A: fix, 350A I 40A: 8-10 x I I 63-125A: 6-10 x I
Rated short-circuit breaking capacity I , /I ,	
I _{al} at 240V 50/60Hz	85kA
I at 415V 50/60Hz	50kA
I at 690V 50/60Hz	10kA
I at 240V 50/60Hz	85kA
I _g at 415V 50/60Hz	50kA
I_ at 690V 50/60Hz	7.5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

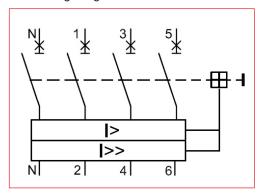
■ MCCB 4-pole MC1..241 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 1 - 4-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 160A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 20A	MC1N-4-A20		MC120241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 25A	MC1N-4-A25		MC125241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 32A	MC1N-4-A32	000 0-0	MC132241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 40A	MC1N-4-A40	333 0- 6	MC140241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 50A	MC1N-4-A50	000 0-0	MC150241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 63A	MC1N-4-A63	000 0-0	MC163241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 80A	MC1N-4-A80	555 0-6	MC180241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 100A	MC1N-4-A100	388 0- 6	MC110241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 125A	MC1N-4-A125		MC112241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 160A	MC1N-4-A160		MC116241



■ MCCB MC Size 1 - Accessories



MC190195



MC 190199



MC190015



MC190019



MC195700



MC 190125



MC190172



MC199471



MC199736



MC194608



MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle
- Terminal covers
- Tunnel terminals

■ MCCB MC Size 1 - Accessories

MCCB MC Size 1 - Accessories			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Door Sealing Frame for MC1	MC1-XBR		MC190195
Toggle Lever Locking Device for MC1	MC1-XKAV		MC190199
Spacer, MC1/2	MC1/2-XAB	000 0-0	MC190203
Clip Plate 25mm for MC1	MC1-XC35	388 0-8	MC190213
Main switch set for MC1 with door interlock, black/grey, MC1	MC1-XHB		MC196626
Main switch set for MC1 with door interlock, red/yellow, MC1	MC1-XHBR	300 0-0	MC196632
Early make auxiliary contact, MC1	MC1-XHIVL	000 0-0	MC199432
Connecting technic, accessories			
Box Terminal 3-pole for MC1	MC1-XKC		MC190015
Screw Terminal 3-pole for MC1	MC1-XKS	000	MC190019
Terminal Cover 3-pole, MC1	MC1-XKSA	000 0-0	MC190021
Control Circuit Terminal for Screw Connection, MC1	MC1-XSTS		MC190150
Terminal Cover 3-pole, MC1	MC1-XKSFA	000	MC190780
Terminal Cover 4-pole, MC1	MC1-4-XKSFA	000	MC190781
60mm Busbar Adapter 160A, 3-pole, MC1	32570	555 0= 0	MC195700
Phase separator plates for MC1, 3-pole	MC1-XKP		MC196609
Screw Terminal 4-pole for MC1	MC1-4-XKS		MC196725
Tunnel Terminal 90mm², 3-pole for MC1	MC1-XKA	388 0-8	MC196730
Tunnel Terminal 95mm², 4-pole for MC1	MC1-4-XKA	000 0-0	MC196731
Rear Connection 3-pole, MC1	MC1-XKR		MC196734
Control Circuit Terminal, MC1-4	MC1-XSTK	000 0-0	MC196739
Terminal Cover 4-pole, MC1	MC1-4-XKSA	000 0-0	MC196741
IP2x finger protection for box terminal, 3-pole, MC1	MC1-XIPK	000 0-0	MC196744
IP2X protection for terminal cover MC1, 3-pole	MC1-XIPA		MC196748
IP2X finger protection for terminal cover, 4-pole, MC1	MC1-4-XIPA		MC196749
Phase separator plates for MC1, 4-pole	MC1-4-XKP		MC196870
Box Terminal 4-pole for MC1	MC1-4-XKC		MC197075
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable for MC1	MC1-XDV	000 0-0	MC190125
Rotary Handle with door interlock, black/grey	MC1-XTVD		MC190131
Rotary Handle red/yellow lockable for MC1	MC1-XDVR	000 0-0	MC190135
Rotary Handle Emergency-Stop with door interlock	MC1-XTVDR		MC190142
Door Coupling Rotary Handle, lockable, black/grey, MC1	MC1-XTVD	000	MC190166
Door Coupling Rotary Handle, lockable, MC1	MC1-XTVDV	000	MC190172
Door Coupling Rotary Handle, lockable, red/yellow, MC1	MC1-XTVDVR	555 0= 0	MC190178
Extension Shaft 600mm, MC1/2	MC1/2-XV6	355 0- 0	MC190191
Extension Shaft 400mm, MC1/2	MC1/2-XV4	000 0=0	MC191232
Door coupling for MC1 60mm	MC1-XTVDVR-60		MC191512
Mechanical Interlock for MC1	MC1-XMV	000 0-0	MC191581
Under voltage release units, shunt-trips and accessories			
Undervoltage Release 24VAC for MC1, included 3m cable	MC1-XUL24AC		MC199462
Undervoltage Release 208-240VAC for MC1, included 3m cable	MC1-XUL208-240	000 0-0	MC199471
Undervoltage Release 380-440VAC for MC1, included 3m cable	MC1-XUL380-440		MC199473
Undervoltage Release 24VDC for MC1, included 3m cable	MC1-XUL24DC	355 0- 6	MC199481
Undervoltage Release 220-250VDC for MC1, included 3m cable	MC1-XUL220-250		MC199489
Undervoltage Release with 2 early make Contacts, 230VAC, MC1	MC1-XUHIV208-240	355 0- 0	MC199565
Undervoltage Release with 2 early make Contacts, 400VAC, MC1	MC1-XUHIV380-440		MC199567
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Undervoltage Release for time-delay unit, MC1	MC1-XUVL		MC191607
Shunt trip 24V AC/DC with 3m cable for MC1	MC1-XAL24VAC/DC	555 0- 0	MC199736
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■ MCCB MC Size 1 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Under voltage release units, shunt-trips and accessories			
Shunt trip 115V AC/DC with 3m cable for MC1	MC1-XAL110-130		MC199742
Shunt trip 208-250V AC/DC with 3m cable for MC1	MC1-XAL208-250	000 0-0	MC199744
Shunt trip 24V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL24		MC199792
Shunt trip 230V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL208-250		MC199800
Residual current release units and accessories			
Earth Leakage Release, right hand mounting, 3-pole 30mA, MC1	MC1-XFI30R		MC194603
Earth Leakage Release, right hand mounting, 3-pole 300mA, MC1	MC1-XFI300R	900 0-0	MC194604
Earth Leakage Release, right hand mounting, 3-pole up to 3A, MC1	MC1-XFIR	333 0-6	MC194605
Earth Leakage Release, bottom mounting, 3-pole 30mA, MC1	MC1-XFI30U		MC194609
Earth Leakage Release, bottom mounting, 3-pole 300mA, MC1	MC1-XFI300U		MC194610
Earth Leakage Release, right hand mounting, 4-pole 30mA, MC2	MC1-4-XFI30R		MC194606
Earth Leakage Release, right hand mounting, 4-pole 300mA, MC1	MC1-4-XFI300R		MC194607
Earth Leakage Release, right hand mounting, 4-pole up to 3A, MC1	MC1-4-XFIR	000 0-0	MC194608
Earth Leakage Release, bottom mounting, 4-pole 30mA, MC1	MC1-4-XFI30U		MC194612
Earth Leakage Release, bottom mounting, 4-pole 300mA, MC1	MC1-4-XFI300U		MC194613
Earth Leakage Release, bottom mounting, 4-pole up to 3A, MC1	MC1-4-XFIU	333 0-0	MC194614
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000 000	MM216378
Double NO contact, Cage clamp	M22-CK20	335 0- 6	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	333 0-6	MM107940





■ MCCB MC Size 2 - 3-pole, 25kA

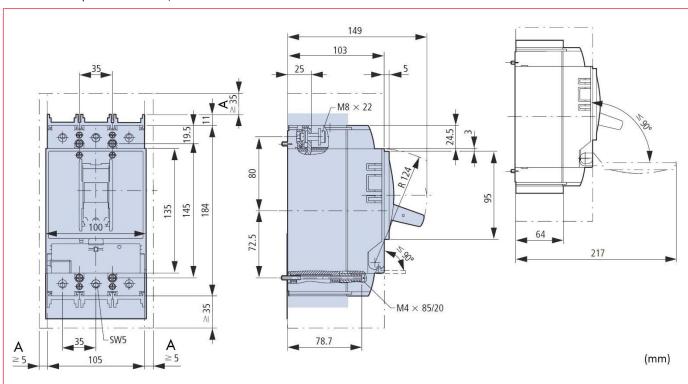


Schrack-Info

- For System and Line Protection, Motor Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release $6 10 \times \ln (8 14 \times \ln)$
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 125A to 300A

	with thermomagnetic release unit	with motor protection	
Rated current I	125 - 300A	125 - 200A	
Rated voltage U _g	400VAC	400VAC	
Adjustable overload release I,	0.8 - 1 x l	0.8 - 1 x l	
Adjustable short circuit release I	6 - 10 x I	8 - 14 x I	
Rated short-circuit breaking capacity I / I s			
I _{al} at 240V 50/60Hz	30kA		
I at 400V 50/60Hz	25kA		
I at 690V 50/60Hz	-		
I _s at 240V 50/60Hz	30kA		
I _s at 400V 50/60Hz	25kA	1	
I _a at 690V 50/60Hz	-		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2	2, VDE 0660	

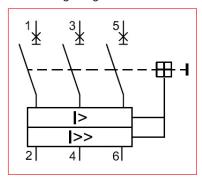
■ MCCB 3-pole MC2..131/MC2..136 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 3-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 125A	MC2B-A125	000 0-0	MC212131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 160A	MC2B-A160	333 0-6	MC216131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 200A	MC2B-A200	000 0-6	MC220131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 250A	MC2B-A250	000 0-0	MC225131
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 300A	MC2B-A300	000 0-0	MC230131
125 to 200A with motor protection			
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 125A	MC2B-M125	000 0-0	MC212136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 160A	MC2B-M160	000 0-0	MC216136
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 200A	MC2B-M200	000 0-0	MC220136

MCCB MC Size 2 - 3-pole, 36kA



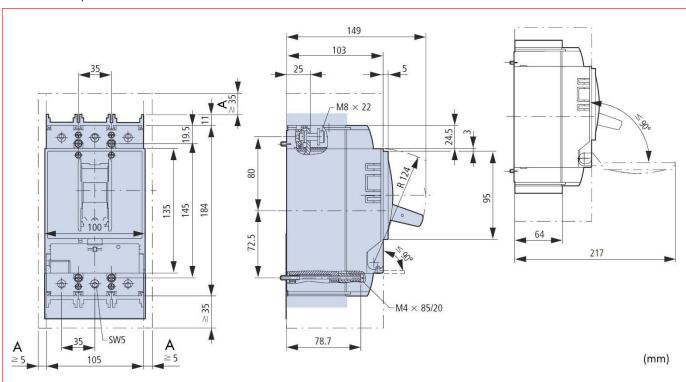
MC216431

Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release 6 10 x In
- Box terminals standard, screw connections as option
- Switching capacity 36kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 160A to 300A

	with thermomagnetic release unit
Rated current I	160 - 300A
Rated voltage U	690VAC
Adjustable overload release I	0.8 - 1 x l
Adjustable short circuit release I	6 - 10 x l
Rated short-circuit breaking capacity I cu/I cs	
I _{cu} at 240V 50/60Hz	55kA
I at 415V 50/60Hz	36kA
I at 690V 50/60Hz	8kA
I at 240V 50/60Hz	55kA
I _s at 415V 50/60Hz	36kA
I at 690V 50/60Hz	4kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

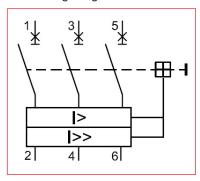
■ MCCB 3-pole MC2..431 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 3-pole, 36kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 160A	MC2C-A160	000 0-0	MC216431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 200A	MC2C-A200		MC220431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 250A	MC2C-A250	000 0-0	MC225431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 300A	MC2C-A300		MC230431

■ MCCB MC Size 2 - 3-pole, 50kA



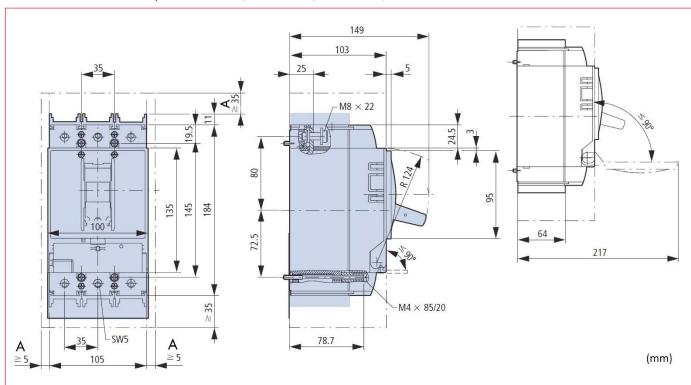
MC216231

Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 90A to 300A

	with thermomagnetic release unit	with motor protection	with delayed electronic release unit	with electronic motor protection	
Rated current I	125 - 300A	125 - 200A	100 - 250A	90 - 220A	
Rated voltage U	690VAC	690VAC	690VAC	690VAC	
Adjustable overload release I	0.8 - 1 x l	0.8 - 1 x l	0.5 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I	6 - 10 x I	8 - 14 x I	fix, 12 x I	2 - 14 x l	
Rated short-circuit breaking capacity I					
I _a at 240V 50/60Hz		88	5kA		
I at 415V 50/60Hz		50)kA		
I at 690V 50/60Hz		20	DkA		
I at 240V 50/60Hz		8.5	5kA		
I _g at 415V 50/60Hz		50)kA		
I_ at 690V 50/60Hz		5kA			
Ambient temperature (operation)		-25°C to +70°C			
Mounting position		vertical and 90° in all directions			
Standards and regulations		IEC/EN 60947-2, VDE 0660			

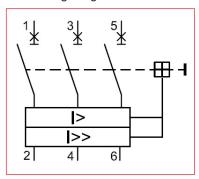
■ Dimensions: MCCB 3-pole MC2..231/MC2..236/MC2..233/MC2..237 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 3-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 125A	MC2N-A125	000 0-0	MC212231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 160A	MC2N-A160	333 0-8	MC216231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 200A	MC2N-A200	000 0-0	MC220231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 250A	MC2N-A250	333 0-5	MC225231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 300A	MC2N-A300		MC230231
125 to 200A with motor protection			
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 125A	MC2N-M125		MC212236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 160A	MC2N-M160		MC216236
Moulded Case Circuit Breaker type M, 3-pole, 50kA, 200A	MC2N-M200		MC220236
100 to 250A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 100A	MC2N-VE100	555 0-6	MC210233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 160A	MC2N-VE160	333 0-0	MC216233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 250A	MC2N-VE250	000 0-0	MC225233
90 to 220A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 90A	MC2N-ME90	000 0=0	MC290237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 140A	MC2N-ME140	988 0-8	MC214237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 220A	MC2N-ME220	355 0- 0	MC222237



MCCB MC Size 2 - 3-pole, 150kA



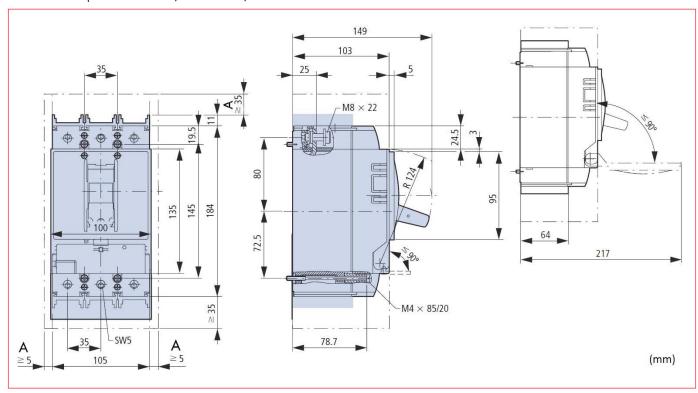
MC263331

Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 300A

	with thermomagnetic release unit	with delayed electronic release unit	with electronic motor protection		
Rated current I	20 - 300A	100 - 250A	90 - 220A		
Rated voltage U	690VAC	690VAC	690VAC		
Adjustable overload release I	0.8 - 1 x l	0.5 - 1 x l	0.5 - 1 x I		
Adjustable short circuit release I,	I 20A, 32A: fix, 350A I 25A: 6 - 10 x I I 40A: 8 - 10 x I I 50A - 300A: 6 - 10 x I	fix, 12 x I _n	2 - 14 x I _n		
Rated short-circuit breaking capacity I					
I _{al} at 240V 50/60Hz		150kA			
I at 415V 50/60Hz		150kA			
I at 690V 50/60Hz		20kA			
I _a at 240V 50/60Hz		150kA			
I_ at 415V 50/60Hz		150kA			
I_ at 690V 50/60Hz		5kA			
Ambient temperature (operation)		-25°C to +70°C			
Mounting position		vertical and 90° in all directions			
Standards and regulations		IEC/EN 60947-2, VDE 0660			

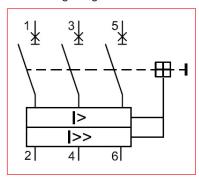
MCCB 3-pole MC2..331/MC2..333/MC2..337 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 3-pole, 150kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 20A	MC2H-A20		MC202331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 25A	MC2H-A25		MC205331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 32A	MC2H-A32		MC232331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 40A	MC2H-A40		MC240331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 50A	MC2H-A50		MC250331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 63A	MC2H-A63	000 0-0	MC263331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 80A	MC2H-A80	000 0-0	MC280331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 100A	MC2H-A100	388 6-8	MC210331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 125A	MC2H-A125		MC212331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 160A	MC2H-A160		MC216331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 200A	MC2H-A200		MC220331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 250A	MC2H-A250		MC225331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 300A	MC2H-A300		MC230331
100 to 250A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 100A	MC2H-VE100		MC210333
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 160A	MC2H-VE160		MC216333
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 250A	MC2H-VE250		MC225333
90 to 220A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 100kA, 90A	MC2H-ME90		MC290337
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 140A	MC2H-ME140		MC214337
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 220A	MC2H-ME220		MC222337



MCCB MC Size 2 - 4-pole, 25kA



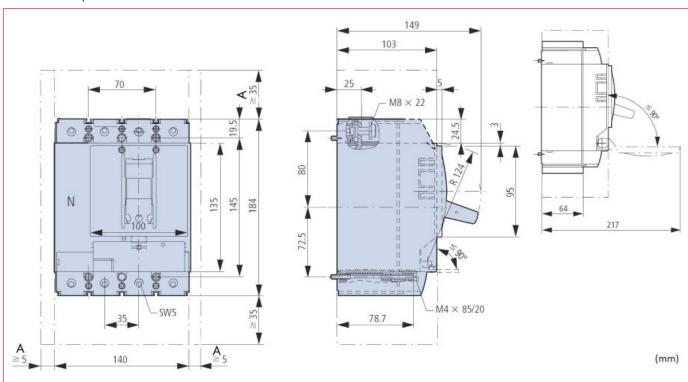
MC216141

Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release 6 10 x In
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 125A to 300A

	with thermomagnetic release unit
Rated current I	125 - 300A
Rated voltage U	400VAC
Adjustable overload release I,	0.8 - 1 x l
Adjustable short circuit release I	6 - 10 x I
Rated short-circuit breaking capacity I / I s	
I _{at} 240V 50/60Hz	30kA
I at 400V 50/60Hz	25kA
I at 690V 50/60Hz	-
I at 240V 50/60Hz	30kA
I _s at 400V 50/60Hz	25kA
I at 690V 50/60Hz	-
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

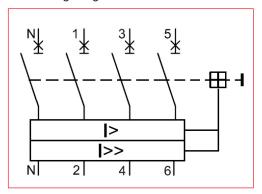
■ MCCB 4-pole MC2..141 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 4-pole, 25kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 125A	MC2B-4-A125		MC212141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 160A	MC2B-4-A160	999 0- 8	MC216141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 200A	MC2B-4-A200	000 0-0	MC220141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 250A	MC2B-4-A250	355 0- 8	MC225141
Moulded Case Circuit Breaker type A, 4-pole, 25kA, 300A	MC2B-4-A300		MC230141

MCCB MC Size 2 - 4-pole, 50kA



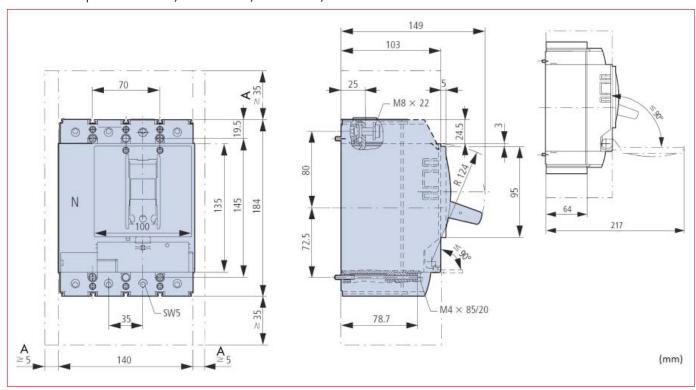
MC212241

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Types with reduced neutral conductor-release available
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 100A to 300A

	with thermomagnetic release unit	with delayed electronic release unit		
Rated current I	125 - 300A	100 - 250A		
Rated voltage U	690VAC	690VAC		
Adjustable overload release I	0.8 - 1 x l	0.5 - 1 x l		
Adjustable short circuit release I	6 - 10 x l	fix, 12 x I		
Rated short-circuit breaking capacity I / I cs				
I _{at} at 240V 50/60Hz	85	5kA		
I at 415V 50/60Hz	50)kA		
I _{at} at 690V 50/60Hz	20	OkA		
I _g at 240V 50/60Hz	85	5kA		
I _g at 415V 50/60Hz	50)kA		
I _s at 690V 50/60Hz	5	ikA		
Ambient temperature (operation)	-25°C to +70°C			
Mounting position	vertical and 90	° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660			

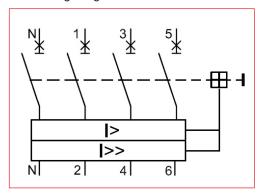
MCCB 4-pole MC2..241/MC2..241R/MC2..243/MC2..243R dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 4-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 125A	MC2N-4-A125	988 0= 0	MC212241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 160A	MC2N-4-A160	988 0-6	MC216241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 160A/100A, reduced Neutral	MC2N-4-A160/100		MC216241R
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 200A	MC2N-4-A200	000 0-0	MC220241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 200A/125A, reduced Neutral	MC2N-4-A200/125		MC220241R
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 250A	MC2N-4-A250	000 0-0	MC225241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 250A/160A, reduced Neutral	MC2N-4-A250/160		MC225241R
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 300A	MC2N-4-A300		MC230241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 300A/200A, reduced Neutral	MC2N-4-A300/200		MC230241R
100 to 250A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 100A	MC2N-4-VE100	000 0-0	MC210243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 160A	MC2N-4-VE160	000 0-0	MC216243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 160A/100A, reduced Neutral	MC2N-4-VE160/100		MC216243R
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 250A	MC2N-4-VE250	000 0-0	MC225243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 250/160A	MC2N-4-VE250/160		MC225243R



MCCB MC Size 2 - 4-pole, 150kA



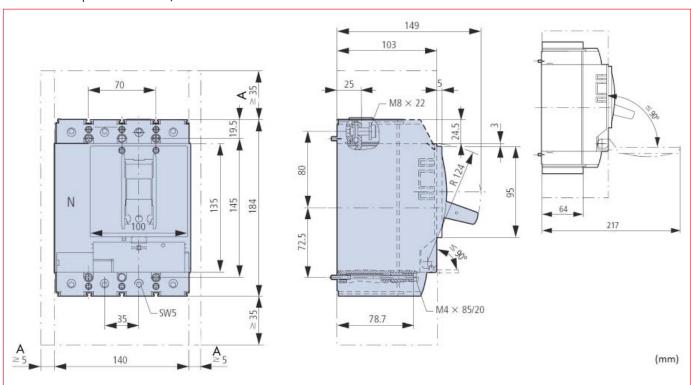
MC210343

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 300A

	with thermomagnetic release unit	with delayed electronic release unit		
Rated current I	20 - 300A	100 - 250A		
Rated voltage U	690VAC	690VAC		
Adjustable overload release I	0.8 - 1 x l	0.5 - 1 x l		
Adjustable short circuit release I _i	I 20A, 32A: fix, 350A I 25A: 6 - 10 x I I 40A: 8 - 10 x I I 50A - 300A: 6 - 10 x I	fix, 12 x I _n		
Rated short-circuit breaking capacity I / I s				
I _{cu} at 240V 50/60Hz	15	OkA		
I at 415V 50/60Hz	15	0kA		
I _{cu} at 690V 50/60Hz	20	0kA		
I _g at 240V 50/60Hz	15	0kA		
I _g at 415V 50/60Hz	15	0kA		
I at 690V 50/60Hz	5	ikA		
Ambient temperature (operation)	-25°C1	-25°C to +70°C		
Mounting position	vertical and 90	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660			

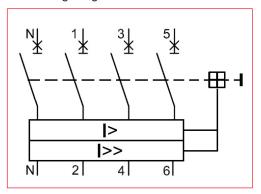
■ MCCB 4-pole MC2..341/MC2..343 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 2 - 4-pole, 150kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 300A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 20A	MC2H-4-A20		MC202341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 25A	MC2H-4-A25		MC205341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 32A	MC2H-4-A32		MC232341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 40A	MC2H-4-A40		MC240341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 50A	MC2H-4-A50		MC250341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 63A	MC2H-4-A63		MC263341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 80A	MC2H-4-A80		MC280341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 100A	MC2H-4-A100		MC210341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 125A	MC2H-4-A125		MC212341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 160A	MC2H-4-A160		MC216341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 200A	MC2H-4-A200		MC220341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 250A	MC2H-4-A250		MC225341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 300A	MC2H-4-A300		MC230341
100 to 250A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 100A	MC2H-4-VE100		MC210343
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 160A	MC2H-4-VE160		MC216343
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 250A	MC2H-4-VE250		MC225343



■ MCCB MC Size 2 - Accessories







MC290201



MC290038



MC294640



MC296872





MC290137



MC191585



MC299499



MC299832



MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle and plug- in socket
- Terminal covers
- Residual current release
- Remote operator
- Plug-in socket

■ MCCB MC Size 2 - Accessories

MCCB MC Size 2 - Accessories			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Toggle Lever Locking Device for MC2	MC2/3-XKAV	383 0-0	MC290201
Clip Plate 75mm for MC2	MC2-XC75		MC290215
Main switch set with door interlock, black/grey, MC2	MC2-XHB		MC296627
Main switch set with door interlock, red/yellow, MC2	MC2-XHBR		MC296633
Connecting technic, accessories			
Terminal Cover 3-pole, MC2	MC2-XKSA	000 0-0	MC290038
60mm Busbar Adapter 250A, 3-pole, MC2	32140	000 0-0	MC291400
Cover for Adapter MC2, 3-pole	MC2-XKR4	388 0-8	MC291666V2
Extra Cover for Remote Operator for MC2 4-pole	MC2-XAVPR	000 0-0	MC296677
Control Circuit Terminal for screw connection, MC2	MC2-XSTS	388 0-0	MC290156
Door Sealing Frame for MC2	MC2-XBR		MC290197
Tunnel Terminal 185mm², 3-pole for MC2	MC2-XKA	988 0- 0	MC291457
Tunnel Terminal 1x185mm², 4-pole for MC2	MC2-4-XKA	000 0-0	MC291458
Box Terminal 160A for MC2 (3 pcs.)	MC2-160-XKC	555 0- 6	MC292240
Box Terminal 250A for MC2 (3 pcs.)	MC2-250-XKC	000 0-0	MC292244
Box Terminal 160A for MC2 (4 pcs.)	MC2-4-160-XKC	000	MC296755
Box Terminal 250A for MC2-4 (4 pcs.)	MC2-4-250-XKC	000 0-0	MC296756
Connection Cover 3-pole, MC2	MC2-XKSFA	000 0-0	MC294640
Connection Cover 4-pole, MC2	MC2-4-XKSFA	000 0-0	MC294641
Rear Connection 3-pole, MC2	MC2-XKR		MC296765
Rear Connection 4-pole, MC2	MC2-4-XKR		MC296768
Phase separator plates for MC2, 3-pole	MC2-XKP		MC296871
Phase separator plates for MC2, 4-pole	MC2-4-XKP		MC296872
Cable Lug 95mm² MC2	MC2-XKS95	333 0- 8	MC299775
Cable Lug 120mm² MC2	MC2-XKS120	000 0-0	MC299776
Cable Lug 150mm² MC2	MC2-XKS150	999 0-0	MC299777
Cable Lug 185mm² MC2	MC2-XKS185	000 0-0	MC290032
Screw Terminal 3-pole for MC2	MC2-XKS	000 0-0-	MC290030
Screw Terminal 4-pole for MC2	MC2-4-XKS		MC296750
Terminal Cover 4-pole, MC2	MC2-4-XKSA	000 0-0	MC296770
IP2x finger protection for terminal cover, 3-pole, MC2	MC2-XIPA	(000 0 0 0 0	MC296777
IP2x-protection cover for terminals, 3-pole, for MC2	MC2-XIPK	388 0-8	MC296773
IP2x-protection cover for terminals, 3-pole, for MC2	MC2-4-XIPK	999 0- 8	MC296774
IP2x finger protection for terminal cover, 4-pole, MC2	MC2-4-XIPA		MC296778
Control Circuit Unit for auxiliary contact, MC1/2, MC1/2-N	MC2-XSVHI		
Control Circuit Unit for remote operator			MC296705 MC296706
Rotary handles, door coupling handles, accessories	MC2-XSVR		MC290700
	MC2 VDV		MC200127
Rotary Handle complete, lockable for MC2	MC2-XDV	999 0- 0	MC290127
Rotary Handle with door interlock, black/grey for MC2	MC2-XDTV	- Provide Inc.	MC290133
Rotary Handle red/yellow lockable	MC2-XDVR	000	MC290137
Rotary Handle emergency stop with door interlock	MC2-XDTVR	(page 1 fra	MC290144
Door Coupling Rotary Handle, lockable, black/grey, MC2	MC2-XTVD	000	MC290168
Door Coupling Rotary Handle, lockable, black/grey 0/1, MC2	MC2-XTVDV	000 0-0	MC290174
Door Coupling Rotary Handle, lockable, red/yellow, MC2	MC2-XTVDVR	388 0-0	MC290180
Mechanical Interlock for MC2	MC2-XMV	000 0-0	MC291582
Mechanical Interlock for Remote Operator for MC2	MC2-XMVR	000 0-0	MC294543
Mechanical Interlock for Remote Operator for MC2/3	MC2/3-XMVR	000 0=0	MC294544
Mechanical Interlock for Remote Operator for MC2, long	MC2-XMVRL	000 0-0	MC294548
Mechanical Interlock for Remote Operator for MC2/3, long	MC2/3-XMVRL		MC294549
Extension Shaft 600mm, MC1/2	MC1/2-XV6	300 0-0	MC190191

■ MCCB MC Size 2 - Accessories

DESCRIPTION	TVD5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	AV/AU ADIE	00000000
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Rotary handles, door coupling handles, accessories			
Spacer, MC1/2	MC1/2-XAB	000 0=0	MC190203
Extension Shaft 400mm, MC1/2	MC1/2-XV4	555 0- 8	MC191232
Door coupling for MC2 60mm	MC2-XTVDVR-60		MC191513
Bowden Cable 225mm	MC-XBZ225	555 0-0	MC191585
Bowden Cable 600mm	MC-XBZ600	000 0-0	MC191586
Bowden Cable 1000mm	MC-XBZ1000		MC191587
Undervoltage release units, shunt-trips, motor operators and accessories		<u></u>	
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	555 0- 8	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	555 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0=0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	555 0- 8	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	555 0- 5	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0- 0-	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	585 0- 5	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Remote Operator 24-30V DC for MC2 can be synchronised and interlocked	MC2-XR240DC	000 0-0	MC299836
Remote Operator 24-30V DC for MC2 can not be synchronised and interlocked	MC2-XRD240DC	585 0-0	MC299837
Remote Operator 48-60V DC for MC2 can be synchronised and interlocked	MC2-XR48-60DC	000 0-0	MC299838
Remote Operator 208-240V AC for MC2 can be synchronised and interlocked	MC2-XR208-240AC	000 0-0	MC299832
Remote Operator 208-240V AC for MC2 can not be synchronised and interlocked	MC2-XRD208-240A	000 0=0	MC299833
Residual current release units and accessories			
RCD 4-pole for MC2, 30mA, pulse current sensitivity version 2	MC2-4-XFI30 V2		MC296719V2
RCD 4-pole for MC2, 0.1-1A, pulse current sensitivity version 2	MC2-4-XFI	585 0-0	MC296720V2
RCD 4-pole for MC2, 30mA, AC/DC current sensitivity version 2	MC2-4-XFIA30 V2	000 0-0	MC292345V2
RCD 4-pole for MC2, 0.3-1A, AC/DC current sensitivity version 2	MC2-4-XFIA V2	000 0-0	MC292346V2
Early make auxiliary contact, MC2/3	MC2/3-XHIV	000 0-0	MC299430
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	555 0- 6-	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0= 0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





■ MCCB MC Size 3 - 3-pole, 36kA



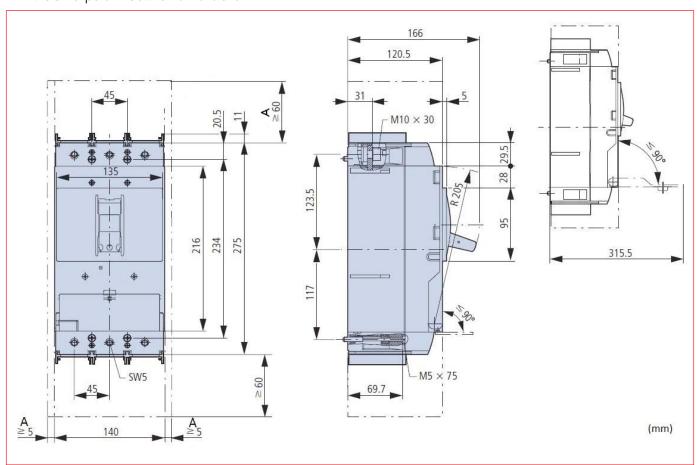
MC332431

Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release 6 10 x In
- Box terminals standard, screw connections as option
- Switching capacity 36kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 320A to 500A

	with thermomagnetic release unit
Rated current I	320 - 500A
Rated voltage U	690VAC
Adjustable overload release I	0.8 - 1 x l
Adjustable short circuit release I	6 - 10 x I
Rated short-circuit breaking capacity I/I	
I _a at 240V 50/60Hz	55kA
I at 415V 50/60Hz	36kA
I at 690V 50/60Hz	8kA
I at 240V 50/60Hz	55kA
I _a at 415V 50/60Hz	36kA
I at 690V 50/60Hz	4kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

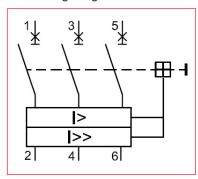
■ MCCB 3-pole MC3..431 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 3 - 3-pole, 36kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
320 to 500A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 320A	MC3C-A320	000 0=0	MC332431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 400A	MC3C-A400	988 0- 6	MC340431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 500A	MC3C-A500	000 0=0	MC350431



MCCB MC Size 3 - 3-pole, 50kA

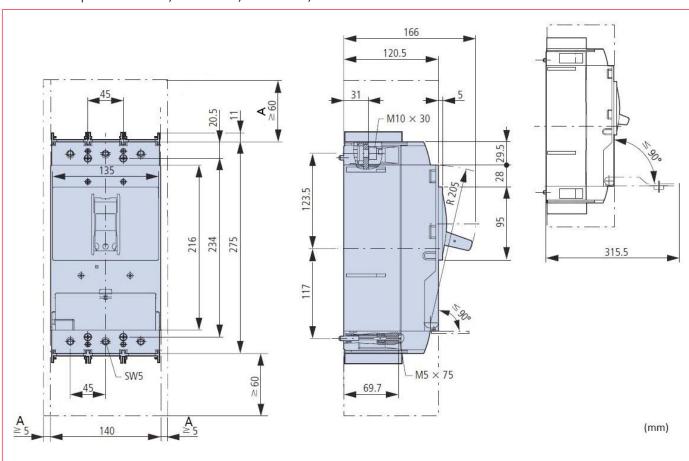


Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 220A to 630A

	with thermomagnetic release unit	with electronic release unit	with delayed electronic release unit	with electronic motor protection
Rated current I	320-500A	250-630A	250-630A	220-450A
Rated voltage U _e	690 VAC	690 VAC	690 VAC	690 VAC
Adjustable overload release I	0.8 - 1,0 x l	0.5 - 1,0 x I	0.5 - 1,0 x I	0.5 - 1,0 x l
Adjustable short circuit release I,	6 - 10 x I _n	I 250A, 400A: 2 - 11 x I 1 630A: 2 - 8 x I 1	I 250A, 400A: 2 - 10 x I 1630A: 2 - 7 x I 1	2 - 14 x I _n
Rated short-circuit breaking capacity /				
I _{,,,} at 240V 50/60Hz		85	kA	
I at 400V 50/60Hz		50	kA	
I at 690V 50/60Hz		20	kA	
I _s at 240V 50/60Hz		85	kA	
I _s at 400V 50/60Hz		50	kA	
I _g at 690V 50/60Hz		5 k	(A	
Ambient temperature (operation)	-25°C to +70°C			
Mounting position	vertical and 90° in all directions			
Standards and regulations	IEC/EN 60947-2, VDE 0660			

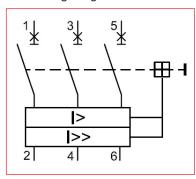
MCCB 3-pole MC3..231/MC3..232/MC3..233/MC3..237 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 3 - 3-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
320 to 500A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 320A	MC3N-A320	000 0-0	MC332231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 400A	MC3N-A400	555 0-0	MC340231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 500A	MC3N-A500	000 0-0	MC350231
250 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 250A	MC3N-AE250	555 0-0	MC325232
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 400A	MC3N-AE400	355 0-0	MC340232
Switch Disconnector 2/4-pole, 400A for remote operation, 1kVDC	MC3N-AE630	000 0-0	MC363232
250 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 250A	MC3N-VE250	000 0-0	MC325233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 400A	MC3N-VE400	388 0-0	MC340233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 630A	MC3N-VE630	555 0-0	MC363233
220 to 450A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 220A	MC3N-ME220		MC322237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 350A	MC3N-ME350	500 0-0	MC335237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 450A	MC3N-ME450	000 0-0	MC345237



■ MCCB MC Size 3 - 3-pole, 150kA



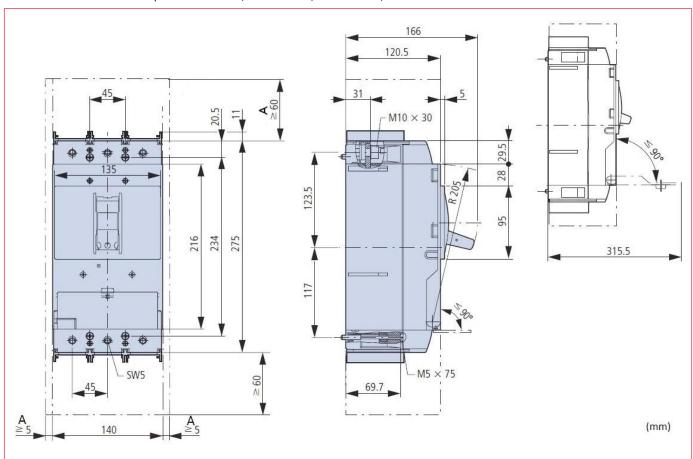
MC332331

Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 220A to 630A

	with thermomagnetic release unit	with electronic release unit	with delayed electronic release unit	with electronic motor protection	
Rated current I	320 - 500A	250 - 630A	250 - 630A	220 - 450A	
Rated voltage U	690VAC	690VAC	690VAC	690VAC	
Adjustable overload release I	0.8 - 1 x I	0.5 - 1 x l	0.5 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I,	6 - 10 x I _n	I 250A, 400A: 2 - 11 x I I 630A: 2 - 8 x I	I 250A, 400A: 2 - 10 x I I 630A: 2 - 7 x I	2 - 14 x I _n	
Rated short-circuit breaking capacity I U					
I _{.,} at 240V 50/60Hz		150)kA		
I at 415V 50/60Hz		150kA			
I _a at 690V 50/60Hz		35kA			
I at 240V 50/60Hz		150kA			
I _s at 415V 50/60Hz		150kA			
I at 690V 50/60Hz		9kA			
Ambient temperature (operation)		-25°C to +70°C			
Mounting position		vertical and 90° in all directions			
Standards and regulations		IEC/EN 60947-2, VDE 0660			

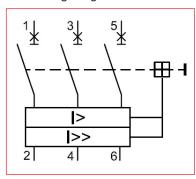
Dimensions: MCCB 3-pole MC3..331/MC3..332/MC3..333/MC3..337



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 3 - 3-pole, 150kA



DESCRIPTION	TYPE NO. AVAILABL	E ORDER NO.
320 to 500A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 320A	MC3H-A320	MC332331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 400A	MC3H-A400	MC340331
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 500A	MC3H-A500	MC350331
250 to 630A with electronic release unit		
Moulded Case Circuit Breaker type AE, 3-pole, 150kA, 250A	MC3H-AE250	MC325332
Moulded Case Circuit Breaker type AE, 3-pole, 150kA, 400A	MC3H-AE400	MC340332
Moulded Case Circuit Breaker type AE, 3-pole, 150kA, 630A	MC3H-AE630	MC363332
250 to 630A with delayed electronic release unit		
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 250A	MC3H-VE250	MC325333
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 400A	MC3H-VE400	MC340333
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 630A	MC3H-VE630	MC363333
220 to 450A with electronic motor protection		
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 220A	MC3H-ME220	MC322337
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 350A	MC3H-ME350	MC335337
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 450A	MC3H-ME450	MC345337



MCCB MC Size 3 - 4-pole, 50kA



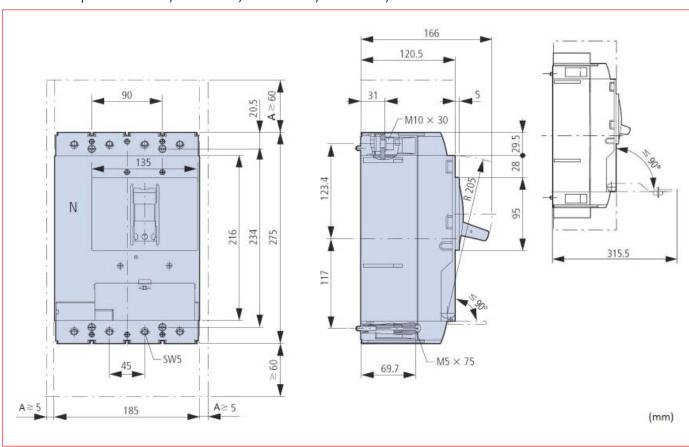
MC340242

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Adjustable short circuit release
- Types with reduced neutral conductor-release available
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 320A to 630A

	with thermomagnetic release unit	with electronic release unit	with delayed electronic release unit		
Rated current I	320 - 500A	400 - 630A	400 - 630A		
Rated voltage U	690VAC	690VAC	690VAC		
Adjustable overload release I	0.8 - 1 x I _n	0.5 - 1 x l	0.5 - 1 x I		
Adjustable short circuit release I	6 - 10 x I	וְ 250A, 400A: 2 - 11 x וְ וְ 630A: 2 - 8 x וְ	I 250A, 400A: 2 - 10 x I 630A: 2 - 7 x I		
Rated short-circuit breaking capacity I / I s					
I at 240V 50/60Hz		85kA			
I at 415V 50/60Hz		50kA			
I at 690V 50/60Hz		20kA			
I at 240V 50/60Hz		85kA			
I _s at 415V 50/60Hz		50kA			
I at 690V 50/60Hz	5kA				
Ambient temperature (operation)	-25°C to +70°C				
Mounting position		vertical and 90° in all directions			
Standards and regulations		IEC/EN 60947-2, VDE 0660			

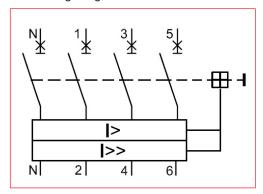
MCCB 4-pole MC3..241/MC3..242/MC3..242R/MC3..243/MC3..243R dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ MCCB MC Size 3 - 4-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
320 to 500A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 320A	MC3N-4-A320	000 0-0	MC332241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 400A	MC3N-4-A400	585 0-6	MC340241
Moulded Case Circuit Breaker type A, 4-pole, 50kA, 500A	MC3N-4-A500		MC350241
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 400A	MC3N-4-AE400	000 0-0	MC340242
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 400A/250A, reduced Neutral	MC3N-4-AE400/250		MC340242R
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 630A	MC3N-4-AE630	000 0-0	MC363242
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 630A/400A, reduced Neutral	MC3N-4-AE630/400		MC363242R
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 400A	MC3N-4-VE400	585 0-6	MC340243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 400A/250A, reduced Neutral	MC3N-4-VE400/250		MC340243R
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 630A	MC3N-4-VE630	000 0-0	MC363243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 630A/400A, reduced Neutral	MC3N-4-VE630/400		MC363243R



■ MCCB MC Size 3 - 4-pole, 150kA



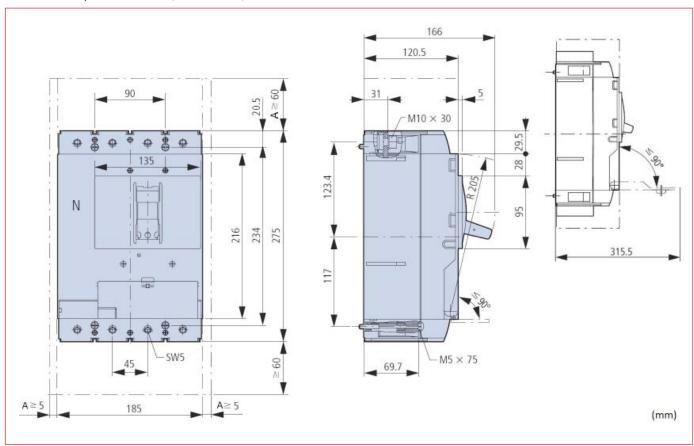
MC332341

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 320A to 630A

	with thermomagnetic release unit	with electronic release unit	with delayed electronic release unit		
Rated current I	320 - 500A	400 - 630A	400 - 630A		
Rated voltage U	690VAC	690VAC	690VAC		
Adjustable overload release I	0.8 - 1 x I	0.5 - 1 x I	0.5 - 1 x l		
Adjustable short circuit release I	6 - 10 x I _n	l 250A, 400A: 2 - 11 x l 630A: 2 - 8 x l	I 250A, 400A: 2 - 10 x I 630A: 2 - 7 x I		
Rated short-circuit breaking capacity I / I					
I _a at 240V 50/60Hz		150kA			
I at 415V 50/60Hz		150kA			
I at 690V 50/60Hz		35kA			
I at 240V 50/60Hz		150kA			
I _g at 415V 50/60Hz		150kA			
I at 690V 50/60Hz		9kA			
Ambient temperature (operation)		-25°C to +70°C			
Mounting position		vertical and 90° in all directions			
Standards and regulations		IEC/EN 60947-2, VDE 0660			

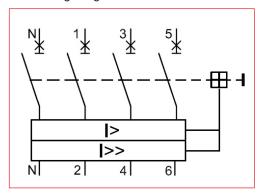
MCCB 4-pole MC3..341/MC3..342/MC3..343 dimensions



A) Blow out area, minimum distance to other parts



■ MCCB MC Size 3 - 4-pole, 150kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
320 to 500A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 320A	MC3H-4-A320		MC332341
Moulded Case Circuit Breaker type A, 4-pole, 100kA, 400A	MC3H-4-A400		MC340341
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 500A	MC3H-4-A500		MC350341
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 150kA, 400A	MC3H-4-AE400		MC340342
Moulded Case Circuit Breaker type AE, 4-pole, 150kA, 630A	MC3H-4-AE630		MC363342
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 400A	MC3H-4-VE400		MC340343
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 630A	MC3H-4-VE630		MC363343



■ MCCB MC Size 3 - Accessories



MC390211



MC390042



MC390140



MC391700



MC391668



MC396804



MC391583









MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle and plug- in socket
- Terminal covers
- Residual current release
- Remote operator
- Drive-out socket

■ MCCB MC Size 3 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Spacer, MC3	MC3-XAB	555 0= 6	MC390211
Door Sealing Frame for MC3	MC3-XBR		MC394645
Main switch set with door interlock, black/grey, MC3	MC3-XHB		MC396628
Main switch set with door interlock, red/yellow, MC3	MC3-XHBR		MC396634
Connecting technic, accessories			
Screw connection 3-pole for MC3	MC3-XKS		MC390039
Cable Lug 185mm² MC3	MC3-XKS185	355 O- 0-	MC390040
Cable Lug 240mm² MC3	MC3-XKS240	333 0-6	MC390041
Sox Terminal 3-pole for MC3	MC3-XKC	000 0-0	MC390042
erminal Cover 3-pole, MC3	MC3-XKSA	555 0- 6	MC390045
hase Separator Plate, 3-pole, MC3	MC3-XKP	000 0-0	MC390512
Connection Width Extension 3-pole 630A, MC3	MC3-XKV70	555 0- 5	MC390514
iox Terminal 300mm² 3-pole, MC3	MC3-XK300		MC390782
Connection Terminals max. 22x21 mm², 3-pole	MC3-XK22X21		MC390784
unnel Terminal 3-pole 1x185mm² for MC3	MC3-XKA1	000 0-0	MC391459
unnel Terminal 3-pole 2x240mm² for MC3	MC3-XKA2	000 0-0	MC391461
Omm Busbar Adapter 630A, 3-pole, MC3	32170	000 0=0	MC391700
Cover for Adapter MC3, 3-pole	MC3-XKR13	000 0-0	MC391668
Connection cover, knock-out able, 3-pole for MC3	MC3-XKSFA		MC394642
ear Connection 3-pole, MC3	MC3-XKR		MC396792
Control Circuit Terminal for Screw Connection, MC3/MC4	MC3/4-XSTS	000 0-0	MC396797
P2x Finger Protection for Box Terminal, 3-pole, MC3	MC3-XIPK	000 0-6	MC396804
P2x Finger Protection for Terminal Cover, 3-pole, MC3	MC3-XIPA	000 0-0	MC396808
hase Separator Plate, 4-pole, MC3	MC3-4-XKP		MC390513
Connection Width Extension 4-pole 630A, MC3	MC3-4-XKV70		MC390515
iox Terminal 300mm² 4-pole, MC3	MC3-4-XK300		MC390783
Connection Terminals max.22x21 mm², 4-pole	MC3-XK22X21		MC390785
unnel Terminal 4-pole 1x185mm² for MC3	MC3-4-XKA1		MC391460
unnel Terminal 4-pole 2x240mm² for MC3	MC3-4-XKA2	000 0-0	MC391462
Connection cover, knock-out able, 4-pole for MC3	MC3-4-XKSFA		MC394643
extra Cover for Remote Operator for MC3 4-pole	MC3-XAVPR	000 0-0	MC396678
crew connection 4-pole for MC3	MC3-4-XKS		MC396780
iox Terminal 4-pole for MC3	MC3-4-XKC		MC396783
ear Connection 4-pole, MC3	MC3-4-XKR		MC396795
erminal Cover 4-pole, MC3	MC3-4-XKSA		MC396801
P2x Finger Protection for Box Terminal, 4-pole, MC3	MC3-4-XIPK		MC396805
P2x Finger Protection for Terminal Cover, 4-pole, MC3	MC3-4-XIPA		MC396809
Notary handles, door coupling handles, accessories			
totary Handle complete, lockable, black/grey for MC3	MC3-XDV	000 0-0	MC390129
totary Handle complete, lockable, red/yellow for MC3	MC3-XDVR	900	MC390140
Ooor Coupling Rotary Handle, lockable, black/grey, MC3	MC3-XTVD	000 0-0	MC390170
Ooor Coupling Rotary Handle, lockable, black/grey 0/1, MC3	MC3-XTVDV	333 0-9	MC390176
Ooor Coupling Rotary Handle, lockable, red/yellow, MC3	MC3-XTVDVR	000 0-0	MC390182
Extension Shaft 600mm, MC3/4	MC3/4-XV6	333 0-0	MC390193
extension Shaft 400mm, MC3/4	MC3/4-XV4	555 0-0	MC391234
Aechanical Interlock for MC3	MC3-XMV	988 0-8	MC391583
Aechanical Interlock for Remote Operator MC3/4	MC3/4-XMVR	000 0=0	MC394546
Mechanical Interlock for Remote Operator MC3, long	MC3-XMVRL	000 0-0	MC394550
Mechanical Interlock for Remote Operator MC3/4, long	MC3/4-XMVRL	300 0 0 0	MC394551



■ MCCB MC Size 3 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	300 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	300 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	000 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	388 0- 8	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Mechanical Interlock for Remote Operator for MC3	MC3-XMVR	333 0- 6	MC394545
Remote Operator 24-30V DC for MC3 can be synchronised and interlocked	MC3-XR240DC	000 0-0	MC399854
Remote Operator 48-60V DC for MC3 can be synchronised and interlocked	MC3-XR48-60DC		MC399856
Remote Operator 208-240V AC for MC3 can be synchronised and interlocked	MC3-XR208-240AC	000 0-0	MC399850
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	355 0- 5	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000	MC900030
Current Transformer dm=35mm	FIR-WS-35	000 0-0	MC900035
Current Transformer dm=70mm	FIR-W-70	555 0- 6	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	000	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	333 0- 8	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	988 0-8	MM107898
Double NC contact, Cage clamp	M22-CK02	000	MM107899



MCCB MC Size 4 - 3-pole, 50kA

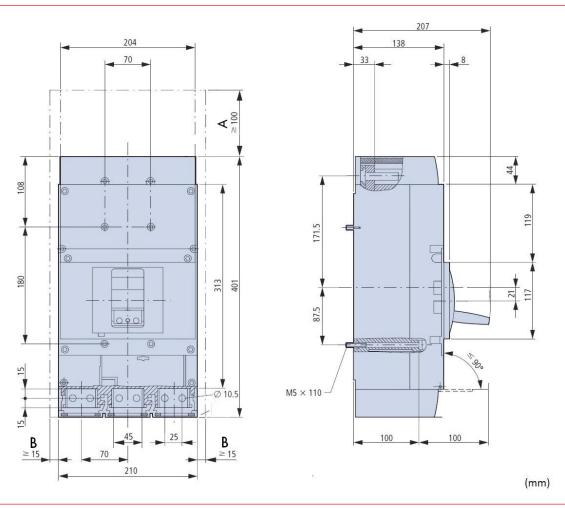


Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In (2 14 x In)
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 550A to 1600A

	with electronic release unit	with delayed electronic release unit	with electronic motor protection	
Rated current I	630 - 1600A	630 - 1600A	550 - 1400A	
Rated voltage U _e	690VAC	690VAC	690VAC	
Adjustable overload release I	0.5 - 1 x l	0.5 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I	2 - 12 x I	2 - 12 x I	2 - 14 x I	
Rated short-circuit breaking capacity I / I cs				
I _{al} at 240V 50/60Hz		50kA		
I at 415V 50/60Hz		50kA		
I _a at 690V 50/60Hz		20kA		
I _s at 240V 50/60Hz		37kA		
I _s at 415V 50/60Hz		37kA		
I at 690V 50/60Hz		15kA		
Ambient temperature (operation)		-25°C to +70°C		
Mounting position		vertical and 90° in all directions		
Standards and regulations		IEC/EN 60947-2, VDE 0660		

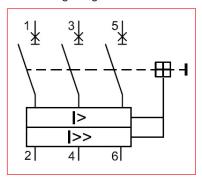
MCCB 3-pole MC4..232/MC4..233/MC4..237 dimensions



- **A)** Blow out area, minimum distance to other parts \geq 100mm up to 690V; \geq 200mm up to 1000V
- B) Minimum distance to other parts



■ MCCB MC Size 4 - 3-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
630 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 630A	MC4N-AE630	000 0-0	MC463232
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 800A	MC4N-AE800	355 0- 6	MC480232
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1000A	MC4N-AE1000	000 0-0	MC410232
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1250A	MC4N-AE1250	333 0- 0	MC412232
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1600A	MC4N-AE1600	585 0-0	MC416232
630 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 630A	MC4N-VE630		MC463233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 800A	MC4N-VE800	000 0-0	MC480233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1000A	MC4N-VE1000	000 0=0	MC410233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1250A	MC4N-VE1250	333 0- 8	MC412233
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1600A	MC4N-VE1600	000 0-0	MC416233
550 to 1400A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 550A	MC4N-ME550		MC455237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 875A	MC4N-ME875		MC487237
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 1400A	MC4N-ME1400		MC414237



■ MCCB MC Size 4 - 3-pole, 85kA

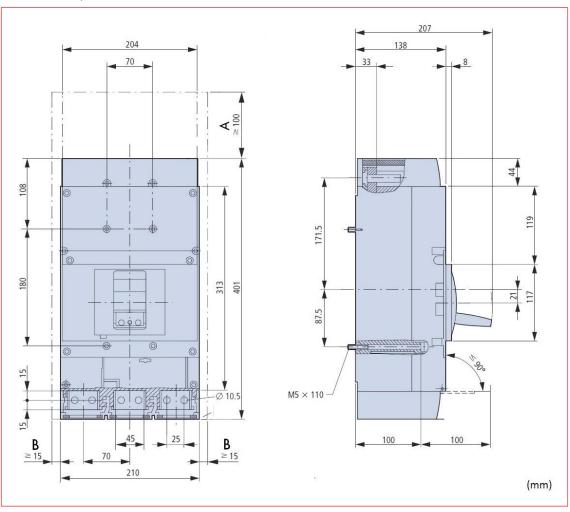


Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In (2 14 x In)
- Box terminals standard, screw connections as option
- Switching capacity 85kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 550A to 1600A

	with electronic release unit	with delayed electronic release unit	with electronic motor protection	
Rated current I	630 - 1600A	630 - 1600A	550 - 1400A	
Rated voltage U	690VAC	690VAC	690VAC	
Adjustable overload release I	0.5 - 1 x l	0.5 - 1 x l	0.5 - 1 x I	
Adjustable short circuit release I	2 - 12 x I	2 - 12 x I	2 - 14 x I	
Rated short-circuit breaking capacity I CI/I CS			· ·	
I _a at 240V 50/60Hz		125kA		
I at 415V 50/60Hz		85kA		
I at 690V 50/60Hz		50kA		
I _s at 240V 50/60Hz		63kA		
I _s at 415V 50/60Hz		43kA		
I at 690V 50/60Hz		37kA		
Ambient temperature (operation)		-25°C to +70°C		
Mounting position		vertical and 90° in all directions		
Standards and regulations		IEC/EN 60947-2, VDE 0660		

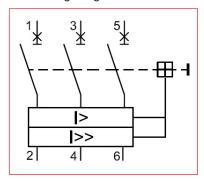
MCCB 3-pole MC4..332/MC4..333/MC4..337 dimensions



- **A)** Blow out area, minimum distance to other parts \geq 100mm up to 690V; \geq 200mm up to 1000V
- B) Minimum distance to other parts



■ MCCB MC Size 4 - 3-pole, 85kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
630 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 630A	MC4H-AE630		MC463332
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 800A	MC4H-AE800	388 0-8	MC480332
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1000A	MC4H-AE1000		MC410332
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1250A	MC4H-AE1250	000 0-0	MC412332
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1600A	MC4H-AE1600	988 0-0	MC416332
630 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 630A	MC4H-VE630		MC463333
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 800A	MC4H-VE800		MC480333
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1000A	MC4H-VE1000		MC410333
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1250A	MC4H-VE1250		MC412333
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1600A	MC4H-VE1600	000 0-0	MC416333
550 to 1400A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 85kA, 550A	MC4H-ME550		MC455337
Moulded Case Circuit Breaker type ME, 3-pole, 85kA, 875A	MC4H-ME875		MC487337
Moulded Case Circuit Breaker type ME, 3-pole, 85kA, 1400A	MC4H-ME1400		MC414337



MCCB MC Size 4 - 4-pole, 50kA



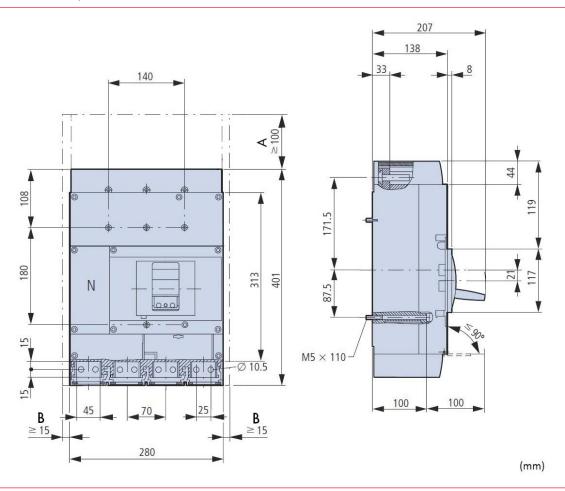
MC410243

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In
- Types with reduced neutral conductor-release available
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 800A to 1600A

	with electronic release unit	with delayed electronic release unit
Rated current I	800 - 1600A	800 - 1600A
Rated voltage U	690VAC	690VAC
Adjustable overload release I	0.5 - 1 x l _n	0.5 - 1 x I
Adjustable short circuit release I	2 - 12 x I	2 - 12 x I
Rated short-circuit breaking capacity I / C		
I _{cu} at 240V 50/60Hz		50kA
I _m at 415V 50/60Hz		50kA
I _{cu} at 690V 50/60Hz		20kA
I_ at 240V 50/60Hz		37kA
I _g at 415V 50/60Hz		37kA
I _g at 690V 50/60Hz		15kA
Ambient temperature (operation)	-25°C	C to +70°C
Mounting position	vertical and 9	00° in all directions
Standards and regulations	IEC/EN 609	947-2, VDE 0660

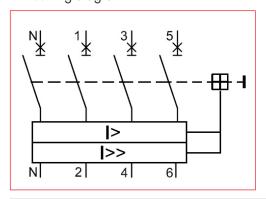
■ MCCB 4-pole MC4..242/MC4..243/MC4..243R dimensions



- **A)** Blow out area, minimum distance to other parts \geq 100mm up to 690V; \geq 200mm up to 1000V
- **B)** Minimum distance to other parts



■ MCCB MC Size 4 - 4-pole, 50kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 800A	MC4N-4-AE800	000 0-0	MC480242
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1000A	MC4N-4-AE1000		MC410242
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1250A	MC4N-4-AE1250		MC412242
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1600A	MC4N-4-AE1600		MC416242
800 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 800A	MC4N-4-VE800		MC480243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 800/500A, reduced Neutral	MC4N-4-VE800/500		MC480243R
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1000A	MC4N-4-VE1000	555 6-6	MC410243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1000/630A, reduced Neutral	MC4N-4-VE1000/630		MC410243R
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1250A	MC4N-4-VE1250	333 0-6	MC412243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1250A/800A, reduced Neutral	MC4N-4-VE1250/800		MC412243R
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1600A	MC4N-4-VE1600		MC416243
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1600/1000A, reduced Neutral	MC4N-4-VE1600/1000		MC416243R

MCCB MC Size 4 - 4-pole, 85kA



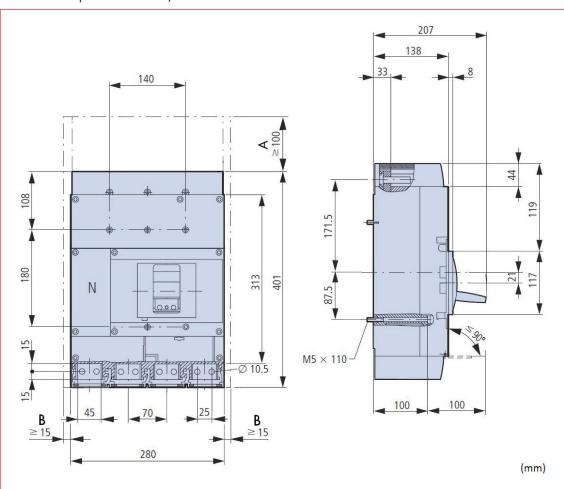
MC480342

Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In
- Box terminals standard, screw connections as option
- Switching capacity 85kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 800A to 1600A

	with electronic release unit	with delayed electronic release unit	
Rated current I	800 - 1600A	800 - 1600A	
Rated voltage U _e	690VAC	690VAC	
Adjustable overload release I	0.5 - 1 x I	0.5 - 1 x l	
Adjustable short circuit release I	2 - 12 x l	2 - 12 x I	
Rated short-circuit breaking capacity I / I		· · · · · · · · · · · · · · · · · · ·	
I _a at 240V 50/60Hz	1	125kA	
I at 415V 50/60Hz	1	85kA	
I at 690V 50/60Hz		50kA	
I at 240V 50/60Hz		63kA	
I _s at 415V 50/60Hz	4	43kA	
I at 690V 50/60Hz		37kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 9	0° in all directions	
Standards and regulations	IEC/EN 609	P47-2, VDE 0660	

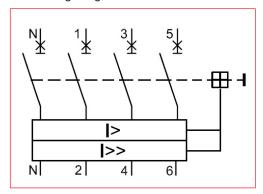
■ MCCB 4-pole MC4..342/MC4..343 dimensions



- **A)** Blow out area, minimum distance to other parts ≥100mm up to 690V; ≥ 200mm up to 1000V
- **B)** Minimum distance to other parts



■ MCCB MC Size 4 - 4-pole, 85kA



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 800A	MC4H-4-AE800		MC480342
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1000A	MC4H-4-AE1000		MC410342
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1250A	MC4H-4-AE1250		MC412342
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1600A	MC4H-4-AE1600		MC416342
800 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 800A	MC4H-4-VE800		MC480343
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1000A	MC4H-4-VE1000		MC410343
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1250A	MC4H-4-VE1250		MC412343
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1600A	MC4H-4-VE1600		MC416343



■ MCCB MC Size 4 - Accessories





MC496820



MC496837



MC496608



MC491584



MC496204

MC900003







MC496685



Schrack-Info

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle
- Terminal covers
- Residual current release
- Remote operator
- Drive-out socket

■ MCCB MC Size 4 - Accessories

MCCB MC Size 4 - Accessories	TVPF \ I O		00050110
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Main switch set for MC4	MC4-XHB		MC491779
Main switch set for MC4 with door interlock, Emergency-Stop, red/yellow, for MC4	MC4-XHBR		MC491842
Door Sealing Frame for MC4	MC4-XBR		MC494646
Connecting technic, accessories			
Connection Width Extension 3-pole 1600A, long, MC4	MC4-XKV110	000 0-0	MC491593
Connection Width Extension 4-pole 1600A, long, MC4	MC44XKV120		MC491594
Connection Width Extension 4-pole 1600A, MC4	MC4-4-XKV95		MC496827
Connection cover, knock-out able, 3-pole for MC4	MC4-XKSFA		MC492193
Connection cover, knock-out able, 4-pole for MC4	MC4-4-XKSFA		MC492194
Connection Extension 3-pole 1600A, MC4	MC4-XKM2S-1600	000 0-0	MC494473
Connection Extension 4-pole 1600A, MC4	MC4-4-XKM2S-1600		MC494474
Nodule Plate 1 hole, MC4, 3-pole	MC4-XKM1	988 0-8	MC496814
Module Plate 2 hole, MC4, 3-pole	MC4-XKM2	988 0-0	MC496820
Nodule Plate 1 hole, MC4, 4-pole	MC4-4-XKM1		MC496815
Aodule Plate 2 hole, MC4, 4-pole	MC4-4-XKM2		MC496821
Connection Width Extension 3-pole 1600A, MC4	MC4-XKS4	300 0-0	MC496826
lat Conductor Terminal 3-pole, MC4	MC4-XKB	000 0-0	MC496829
lat Conductor Terminal 4-pole, MC4	MC4-4-XKB		MC496831
unnel Terminal 3-pole, 4x240mm² for MC4	MC4-XKA	988 0-8	MC496836
unnel Terminal 4-pole, 4x240mm² for MC4	MC4-4-XKA	988 0-8	MC496837
ear Connection 3-pole, MC4	MC4-XKR		MC496842
ear Connection 4-pole, MC4	MC4-4-XKR		MC496843
erminal Cover 3-pole, MC4	MC4-XKC	000 0-0	MC496846
erminal Cover 3-pole, MC4	MC4-4-XKSA		MC496847
hase separator plates for MC4, 3-pole	MC4-XKP	000 0-0	MC496873
hase separator plates for MC4, 4-pole	MC4-4-XKP		MC496874
totary handles, door coupling handles, accessories			
Aechanical Interlock for MC4	MC4-XMV	388 0-8	MC491584
Aechanical Interlock for Remote Operator for MC4	MC4-XMVR	000 0-0	MC494547
Aechanical Interlock for Remote Operator for MC4, long	MC4-XMVRL		MC494552
otary handle direct, lockable, black/grey	MC4-XDV	000 0-6	MC496608
otary handle direct, lockable, red/yellow	MC4-XDVR		MC496610
oor coupling rotary handle, lockable, black/grey	MC4-XTVD	000 0-0	MC496614
Poor coupling rotary handle, 2 x lockable, black/grey	MC4-XTVDV	000 0-0	MC496616
Poor coupling rotary handle, 2 x lockable, red/yellow	MC4-XTVDVR	000 0-0	MC496618
Indervoltage release units, shunt-trips, motor operators and accessories			
Indervoltage Release 24VAC for MC4	MC4-XU24AC	000 0-0	MC496189
Indervoltage Release 110-130VAC for MC4	MC4-XU110-130AC	2000 0-29	MC496192
Indervoltage Release 208-240VAC for MC4	MC4-XU208-240AC	000 0-0	MC496193
Indervoltage Release 380-440VAC for MC4	MC4-XU380-440AC		MC496194
Indervoltage Release 24VDC for MC4	MC4-XU24DC	000 0-0	MC496204
Indervoltage Release 220-250VDC for MC4	MC4-XU220-250DC		MC496208
Indervoltage Release with 2 early make contacts, 230VAC, MC4	MC4-XUHIV208-240		MC496221
Indervoltage Release with 2 early make contacts, 400VAC, MC4	MC4-XUHIV380-440		MC496222
Indervoltage release with 2 early make contacts, 4007AC, MC4	MC4-XUV		MC496588
hunt trip 24 VAC/DC for MC4		555	MC496388 MC496447
hunt trip 110-130V AC/DC for MC4	MC4-XA24AC/DC	000 0= 0	
	MC4-XA110-130AC/DC		MC496450
hunt trip 208-250V AC/DC for MC4	MC4-XA208-250AC/DC	555 0-0	MC496451
hunt trip with early make contact 24VAC/DC for MC4	MC4-XAVHI24AC/DC		MC496471
Shunt trip with early make contact 230VAC/DC for MC4	MC4-XAVHI230AC/DC		MC496475





■ MCCB MC Size 4 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Early-Make auxiliary contact, MC4	MC4-XHIV		MC496172
Remote Operator 24-30V DC for MC4, can be synchronised and interlocked	MC4-XR240DC	555	MC496686
Remote Operator 48-60V DC for MC4, can be synchronised and interlocked	MC4-XR48-60DC	000 0-0	MC496687
Remote Operator 208-240V AC for MC4, can be synchronised and interlocked	MC4-XR208-240AC	000	MC496685
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	555 0- 0	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	388 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	333 0-0	MC900210
Current Transformer 70x 175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	333 0- 8	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	388 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940



Load Switches MC, fix installed









Schrack-Info

• Load break switches type MC, size 1-4, 3 or 4-poles, 63 - 1600A, fix installed

Load Switches MC Size 1 - 3-pole



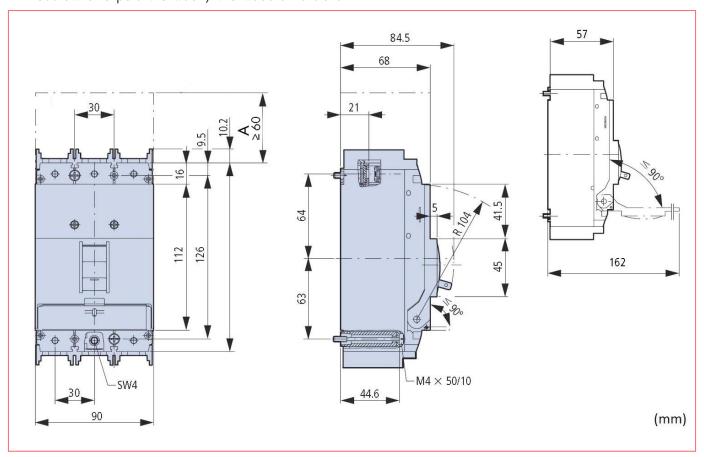
Schrack-Info

- Load-Break Switches without release unit
- Fitted with box-terminals, screw-connections as option
- Types for remote release are retrofit able with auxiliary contacts, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 2,8kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 63A to 160A

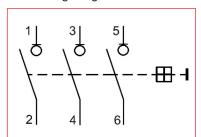
	without thermomagnetic release unit
Rated current I	63 - 160A
Rated voltage U	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	2.8kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

■ Load Switches MC Size 1 - 3-pole

Load Switch 3-pole MC1..034/MC1..035 dimensions



A) Blow out area, minimum distance to other parts



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
63 to 160A - Load Switches, not remote releasable			
Switch Disconnector, 3-pole, 63A	MC1-PN-63	000 0-0	MC163034
Switch Disconnector, 3-pole, 100A	MC1-PN-100	388 0- 0	MC110034
Switch Disconnector, 3-pole, 125A	MC1-PN-125	000	MC112034
Switch Disconnector, 3-pole, 160A	MC1-PN-160	555 0- 0	MC116034
63 to 160A - Load Switches, remote releasable			
Switch Disconnector, 3-pole, 63A for remote operation	MC1-N-63	355 0- 5	MC163035
Switch Disconnector, 3-pole, 100A for remote operation	MC1-N-100	000 0-0	MC110035
Switch Disconnector, 3-pole, 125A for remote operation	MC1-N-125	333 0- 0	MC112035
Switch Disconnector, 3-pole, 160A for remote operation	MC1-N-160	000 0-0	MC116035



Load Switches MC Size 1 - 4-pole



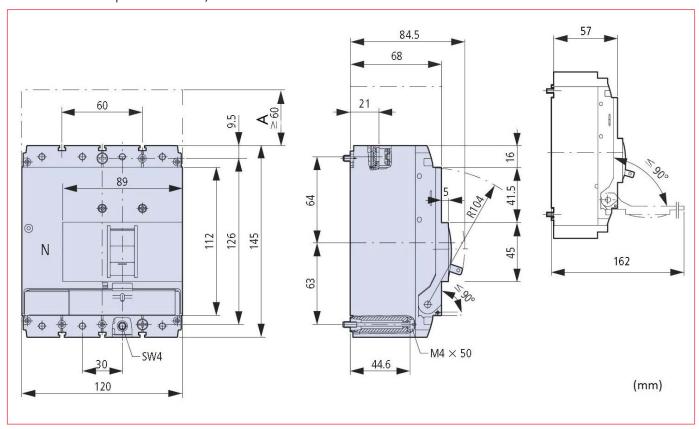
MC112044

Schrack-Info

- Load-Break Switches without release unit
- Fitted with box-terminals, screw-connections as option
- Types for remote release are retrofit able with auxiliary contacts, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 2,8kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 63A to 160A

	without thermomagnetic release unit
Rated current I	63 - 160A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I_m at 415V 50/60Hz	2.8kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

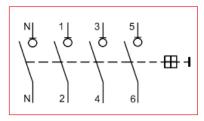
■ Load Switch 4-pole MC1..044/MC1..045 dimensions



A) Blow out area, minimum distance to other parts



■ Load Switches MC Size 1 - 4-pole



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
63 to 160A - Load Switches, not remote releasable		
Switch Disconnector, 4-pole, 63A	MC1-PN-4-63	MC163044
Switch Disconnector, 4-pole, 100A	MC1-PN-4-100	MC110044
Switch Disconnector, 4-pole, 125A	MC1-PN-4-125	MC112044
Switch Disconnector, 4-pole, 160A	MC1-PN-4-160	MC116044
63 to 125A - Load Switches, remote releasable		
Switch Disconnector, 4-pole, 63A for remote operation	MC1-N-4-63	MC163045
Switch Disconnector, 4-pole, 100A for remote operation	MC1-N-4-100	MC110045
Switch Disconnector, 4-pole, 125A for remote operation	MC1-N-4-125	MC112045



Load Switches MC Size 1 - Accessories



MC190195





MC190015



MC190019



MC195700



MC 190125



MC190172



MC199471



MC199736





MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door couplings
- Rotary handles
- Terminal covers
- Tunnel terminals

Load Switches MC Size 1 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories	2.,	7 (7) (12)	- CND 21K T (G)
Door Sealing Frame for MC1	MC1-XBR		MC190195
Toggle Lever Locking Device for MC1	MC1-XKAV		MC190199
Spacer, MC1/2	MC1/2-XAB	388 0-8	MC190203
Clip Plate 25mm for MC1	MC1-XC35	Direct Tris	MC190213
Main switch set for MC1 with door interlock, black/grey, MC1	MC1-XHB	555 0-8-	MC196626
Main switch set for MC1 with door interlock, red/yellow, MC1	MC1-XHBR	000 0-0	MC196632
Early make auxiliary contact, MC1	MC1-XHIVL		MC199432
Connecting technic, accessories	NICT-XIIIVE	7555 0= €	MC177402
Box Terminal 3-pole for MC1	MC1-XKC		MC190015
Screw Terminal 3-pole for MC1	MC1-XKS	555 0- 5	MC190019
Terminal Cover 3-pole, MC1	MC1-XKSA		MC190021
Control Circuit Terminal for Screw Connection, MC1	MC1-XSTS	000 0=0	MC190150
Terminal Cover 3-pole, MC1	MC1-XKSFA	088 0-6	MC190780
Terminal Cover 4-pole, MC1	MC1-4-XKSFA	- Per In	MC190781
60mm Busbar Adapter 160A, 3-pole, MC1	32570		MC195700
Phase separator plates for MC1, 3-pole	MC1-XKP	000 0-0	MC196609
Screw Terminal 4-pole for MC1			MC196809 MC196725
Tunnel Terminal 90mm², 3-pole for MC1	MC1-4-XKS MC1-XKA		MC196730
Tunnel Terminal 95mm², 4-pole for MC1	MC1-4-XKA	555 O- 5	MC196731
Rear Connection 3-pole, MC1	MC1-4-XXA	000 0-0	MC196734
Control Circuit Terminal, MC1-4	MC1-XSTK	000 0-0	MC196739
Terminal Cover 4-pole, MC1	MC1-4-XKSA	988 0- 8	MC196741 MC196744
IP2x finger protection for box terminal, 3-pole, MC1	MC1-XIPK	388 0-8	
IP2X protection for terminal cover MC1, 3-pole	MC1-XIPA		MC196748
IP2X finger protection for terminal cover, 4-pole, MC1	MC1-4-XIPA		MC196749
Phase separator plates for MC1, 4-pole	MC1-4-XKP		MC196870
Box Terminal 4-pole for MC1	MC1-4-XKC		MC197075
Rotary handles, door coupling handles, accessories	MC1 VDV		MC100105
Rotary Handle complete, lockable for MC1	MC1-XDV	000 0-0	MC190125
Rotary Handle with door interlock, black/grey	MC1-XTVD		MC190131
Rotary Handle red/yellow lockable for MC1	MC1-XDVR	555 0-5	MC190135
Rotary Handle Emergency-Stop with door interlock	MC1-XTVDR		MC190142
Door Coupling Rotary Handle, lockable, black/grey, MC1	MC1-XTVD	000 0-0	MC190166
Door Coupling Rotary Handle, lockable, MC1	MC1-XTVDV	000 0-0	MC190172
Door Coupling Rotary Handle, lockable, red/yellow, MC1	MC1-XTVDVR	000 0-0	MC190178
Extension Shaft 600mm, MC1/2	MC1/2-XV6	000 0-0	MC190191
Extension Shaft 400mm, MC1/2	MC1/2-XV4	555 0-0	MC191232
Door coupling for MC1 60mm	MC1-XTVDVR-60		MC191512
Mechanical Interlock for MC1	MC1-XMV	000 0-0	MC191581
Undervoltage release units, shunt-trips and accessories			
Undervoltage Release 24VAC for MC1, included 3m cable	MC1-XUL24AC	James I fra	MC199462
Undervoltage Release 208-240VAC for MC1, included 3m cable	MC1-XUL208-240	999 0- 6	MC199471
Undervoltage Release 380-440VAC for MC1, included 3m cable	MC1-XUL380-440		MC199473
Undervoltage Release 24VDC for MC1, included 3m cable	MC1-XUL24DC	000 0-0	MC199481
Undervoltage Release 220-250VDC for MC1, included 3m cable	MC1-XUL220-250		MC199489
Undervoltage Release with 2 early make Contacts, 230VAC, MC1	MC1-XUHIV208-240	000 0-0	MC199565
Undervoltage Release with 2 early make Contacts, 400VAC, MC1	MC1-XUHIV380-440	Manager I from	MC199567
Time-delay unit for MC1-MC4	MC-UVU	300 0-0	MC190154
Undervoltage Release for time-delay unit, MC1	MC1-XUVL		MC191607
Shunt trip 24V AC/DC with 3m cable for MC1	MC1-XAL24VAC/DC	000 0-0	MC199736

Load Switches MC Size 1 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips and accessories			
Shunt trip 115V AC/DC with 3m cable for MC1	MC1-XAL110-130		MC199742
Shunt trip 208-250V AC/DC with 3m cable for MC1	MC1-XAL208-250	388 0- 6	MC199744
Shunt trip 24V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL24		MC199792
Shunt trip 230V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL208-250		MC199800
Residual current release units and accessories			
Earth Leakage Release, right hand mounting, 3-pole 30mA, MC1	MC1-XFI30R		MC194603
Earth Leakage Release, right hand mounting, 3-pole 300mA, MC1	MC1-XFI300R	000 0-0	MC194604
Earth Leakage Release, right hand mounting, 3-pole up to 3A, MC1	MC1-XFIR	388 0- 6	MC194605
Earth Leakage Release, bottom mounting, 3-pole 30mA, MC1	MC1-XFI30U		MC194609
Earth Leakage Release, bottom mounting, 3-pole 300mA, MC1	MC1-XFI300U		MC194610
Earth Leakage Release, right hand mounting, 4-pole 30mA, MC2	MC1-4-XFI30R		MC194606
Earth Leakage Release, right hand mounting, 4-pole 300mA, MC1	MC1-4-XFI300R		MC194607
Earth Leakage Release, right hand mounting, 4-pole up to 3A, MC1	MC1-4-XFIR	000 0-0	MC194608
Earth Leakage Release, bottom mounting, 4-pole 30mA, MC1	MC1-4-XFI30U		MC194612
Earth Leakage Release, bottom mounting, 4-pole 300mA, MC1	MC1-4-XFI300U		MC194613
Earth Leakage Release, bottom mounting, 4-pole up to 3A, MC1	MC1-4-XFIU	388 0-8	MC194614
Auxiliary contacts			
NO contact block, front montage	M22-K10	333 0-6	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	355 0- 0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	555 0- 6	MM107940





Load Switches MC Size 2 - 3-pole



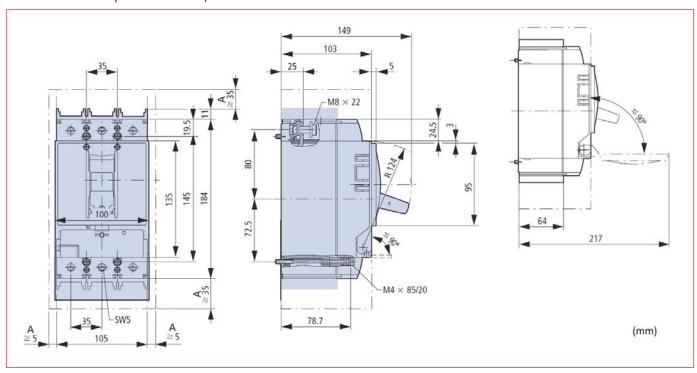
MC216034

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 5.5kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 160A to 250A

	without thermomagnetic release unit
Rated current I	160 - 250A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	5.5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

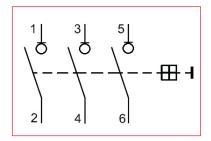
Load Switch 3-pole MC2..034/MC2..035 dimensions



A) Blow out area, minimum distance to other parts



■ Load Switches MC Size 2 - 3-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 to 250A - Load Switches, not remote releasable			
Switch Disconnector, 3-pole, 160A	MC2-PN-160	000 0-0	MC216034
Switch Disconnector, 3-pole, 200A	MC2-PN-200	333 0-0	MC220034
Switch Disconnector, 3-pole, 250A	MC2-PN-250	000 0-6	MC225034
160 to 250A - Load Switches, remote releasable			
Switch Disconnector, 3-pole, 160A for remote operation	MC2-N-160	000 0-0	MC216035
Switch Disconnector, 3-pole, 200A for remote operation	MC2-N-200	000	MC220035
Switch Disconnector, 3-pole, 250A for remote operation	MC2-N-250	000 0-0	MC225035



Load Switches MC Size 2 - 4-pole



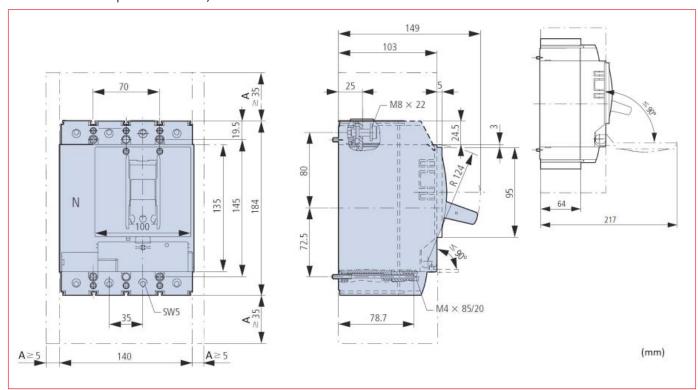
MC216044

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 5.5kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 160A to 250A

	without thermomagnetic release unit
Rated current I	160 - 250A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	5.5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

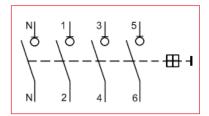
Load Switch 4-pole MC2..044/MC2..045 dimensions



A) Blow out area, minimum distance to other parts



■ Load Switches MC Size 2 - 4-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 to 250A - Load Switches, not remote releasable			
Switch Disconnector, 4-pole, 160A	MC2-PN-4-160		MC216044
Switch Disconnector, 4-pole, 200A	MC2-PN-4-200	388 0-6	MC220044
Switch Disconnector, 4-pole, 250A	MC2-PN-4-250	000 0-0	MC225044
160 to 250A - Load Switches, remote releasable			
Switch Disconnector, 4-pole, 160A for remote operation	MC2-N-4-160	000 0-0	MC216045
Switch Disconnector, 4-pole, 200A for remote operation	MC2-N-4-200		MC220045
Switch Disconnector, 4-pole, 250A for remote operation	MC2-N-4-250	000 0-0	MC225045





Load Switches MC Size 2 - Accessories







MC290201



MC290038



MC294640



MC296872



MC290032



MC290137



MC191585



MC299499



MC299832



MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door couplings
- Rotary handles and plug in sockets
- Terminal covers
- Residual current release
- Remote operator

■ Load Switches MC Size 2 - Accessories

Lodd Switches MC Size 2 - Accessories			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Toggle Lever Locking Device for MC2	MC2/3-XKAV	000 0-0	MC290201
Clip Plate 75mm for MC2	MC2-XC75		MC290215
Main switch set with door interlock, black/grey, MC2	MC2-XHB		MC296627
Main switch set with door interlock, red/yellow, MC2	MC2-XHBR		MC296633
Early make auxiliary contact, MC2/3	MC2/3-XHIV	900 0-0	MC299430
Connecting technic, accessories			
Ferminal Cover 3-pole, MC2	MC2-XKSA	988 0-0	MC290038
60mm Busbar Adapter 250A, 3-pole, MC2	32140	555 0- 8	MC291400
Cover for Adapter MC2, 3-pole	MC2-XKR4	000 0-0	MC291666V2
extra Cover for Remote Operator for MC2 4-pole	MC2-XAVPR	333 0- 0	MC296677
Control Circuit Terminal for screw connection, MC2	MC2-XSTS	000 0=0	MC290156
Poor Sealing Frame for MC2	MC2-XBR		MC290197
unnel Terminal 185mm², 3-pole for MC2	MC2-XKA	555 0= 0	MC291457
unnel Terminal 1x185mm², 4-pole for MC2	MC2-4-XKA	555 0-0	MC291458
ox Terminal 160A for MC2 (3 pcs.)	MC2-160-XKC	000 0=0	MC292240
ox Terminal 250A for MC2 (3 pcs.)	MC2-250-XKC	388 0- 0-	MC292244
ox Terminal 160A for MC2 (4 pcs.)	MC2-4-160-XKC	988 0-0	MC296755
ox Terminal 250A for MC2-4 (4 pcs.)	MC2-4-250-XKC	000 0-0	MC296756
Connection Cover 3-pole, MC2	MC2-XKSFA	000 0-0	MC294640
Connection Cover 4-pole, MC2	MC2-4-XKSFA	000 0-0	MC294641
ear Connection 3-pole, MC2	MC2-XKR		MC296765
ear Connection 4-pole, MC2	MC2-4-XKR		MC296768
hase separator plates for MC2, 3-pole	MC2-XKP		MC296871
hase separator plates for MC2, 4-pole	MC2-4-XKP		MC296872
Cable Lug 95mm² MC2	MC2-XKS95	000 0-0	MC299775
Cable Lug 120mm ² MC2	MC2-XKS120	000 0-0	MC299776
Cable Lug 150mm² MC2	MC2-XKS150	000 0-0	MC299777
Cable Lug 185mm ² MC2	MC2-XKS185	000 0-0	MC290032
crew Terminal 3-pole for MC2	MC2-XKS	2330 02 07	MC290030
crew Terminal 4-pole for MC2	MC2-4-XKS		MC296750
erminal Cover 4-pole, MC2	MC2-4-XKSA	000 0-0	MC296770
P2x finger protection for terminal cover, 3-pole, MC2	MC2-XIPA	000 0=0	MC296777
P2x-protection cover for terminals, 3-pole, for MC2	MC2-XIPK	000 0-0	MC296773
P2x-protection cover for terminals, 4-pole, for MC2	MC2-4-XIPK	(000 O= 0=	MC296774
2x finger protection for terminal cover, 4-pole, MC2	MC2-4-XIPA		MC296778
Control Circuit Unit for auxiliary contact, MC1/2, MC1/2-N	MC2-XSVHI		MC296705
Control Circuit Unit for remote operator	MC2-XSVR		MC296706
Rotary handles, door coupling handles, accessories	191C2-A34K		MC270700
	MC2 VDV	— P-W [7]	MC200127
otary Handle complete, lockable for MC2	MC2-XDV	000 0-0	MC290127
totary Handle with door interlock, black/grey for MC2	MC2-XDTV	Design frag	MC290133
otary Handle red/yellow lockable	MC2-XDVR	000 0-0	MC290137
otary Handle emergency stop with door interlock	MC2-XDTVR	Down Item	MC290144
Oppor Coupling Rotary Handle, lockable, black/grey, MC2	MC2-XTVD	000 0-0	MC290168
Ooor Coupling Rotary Handle, lockable, black/grey 0/1, MC2	MC2-XTVDV	000 0-0	MC290174
Ooor Coupling Rotary Handle, lockable, red/yellow, MC2	MC2-XTVDVR	000 0-0	MC290180
Aechanical Interlock for MC2	MC2-XMV	000 0-0	MC291582
Mechanical Interlock for Remote Operator for MC2	MC2-XMVR	000 0-0	MC294543
Aechanical Interlock for Remote Operator for MC2/3	MC2/3-XMVR	999 0- 0	MC294544
Nechanical Interlock for Remote Operator for MC2, long	MC2-XMVRL	000 0-0	MC294548
Mechanical Interlock for Remote Operator for MC2/3, long	MC2/3-XMVRL		MC294549

■ Load Switches MC Size 2 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
	TIPE NO.	AVAILABLE	ORDER NO.
Rotary handles, door coupling handles, accessories	1101/0 ///		MC100101
Extension Shaft 600mm, MC1/2	MC1/2-XV6	000 0-0	MC190191
Spacer, MC1/2	MC1/2-XAB	000 0-0	MC190203
Extension Shaft 400mm, MC1/2	MC1/2-XV4	000 0=0	MC191232
Door coupling for MC2 60mm	MC2-XTVDVR-60	_ Per in	MC191513
Bowden Cable 225mm	MC-XBZ225	000 0-0	MC191585
Bowden Cable 600mm	MC-XBZ600	000 000	MC191586
Bowden Cable 1000mm	MC-XBZ1000		MC191587
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	999 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	555 0-6	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	999 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Remote Operator 24-30V DC for MC2 can be synchronised and interlocked	MC2-XR240DC	355 0-5	MC299836
Remote Operator 24-30V DC for MC2 can not be synchronised and interlocked	MC2-XRD240DC	333 0-8	MC299837
Remote Operator 48-60V DC for MC2 can be synchronised and interlocked	MC2-XR48-60DC	333 0-6	MC299838
Remote Operator 208-240V AC for MC2 can be synchronised and interlocked	MC2-XR208-240AC	000 0-6	MC299832
Remote Operator 208-240V AC for MC2 can not be synchronised and interlocked	MC2-XRD208-240A	333 0-6	MC299833
Residual current release units and accessories			
RCD 4-pole for MC2, 30mA, pulse current sensitivity version 2	MC2-4-XFI30 V2		MC296719V2
RCD 4-pole for MC2, 0.1-1A, pulse current sensitivity version 2	MC2-4-XFI	000 0-0	MC296720V2
RCD 4-pole for MC2, 30mA, AC/DC current sensitivity version 2	MC2-4-XFIA30 V2	000 0-0	MC292345V2
RCD 4-pole for MC2, 0.3-1A, AC/DC current sensitivity version 2	MC2-4-XFIA V2	000 0=0	MC292346V2
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





Load Switches MC Size 3 - 3-pole



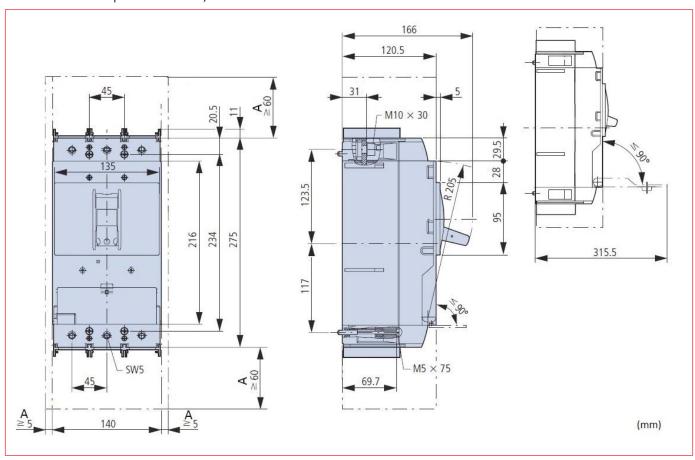
MC340034

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 25kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 400A to 630A

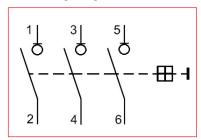
	without thermomagnetic release unit
Rated current I	400 - 630A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I_ at 415V 50/60Hz	25kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

Load Switch 3-pole MC3..034/MC3..035 dimensions



A) Blow out area, minimum distance to other parts

■ Load Switches MC Size 3 - 3-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 630A - Load Switches, not remote releasable			
Switch Disconnector, 3-pole, 400A	MC3-PN-400	000	MC340034
Switch Disconnector, 3-pole, 630A	MC3-PN-630	300 0-0	MC363034
400 to 630A - Load Switches, remote releasable			
Switch Disconnector, 3-pole, 400A for remote operation	MC3-N-400	555 0- 6	MC340035
Switch Disconnector, 3-pole, 630A for remote operation	MC3-N-630	000 0-0	MC363035



■ Load Switches MC Size 3 - 4-pole



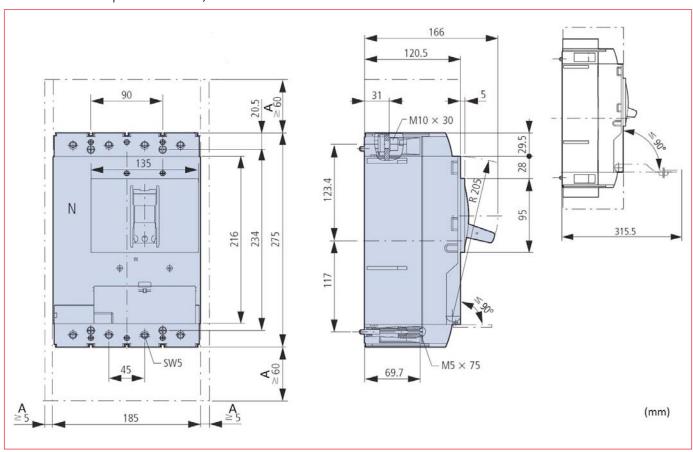
MC340045

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 25kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 400A to 630A

	without thermomagnetic release unit		
Rated current I	400 - 630A		
Rated voltage U _e	440VAC		
Rated short-circuit making capacity			
I _m at 415V 50/60Hz	25kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-3		

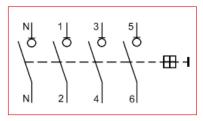
■ Load Switch 4-pole MC3..044/MC3..045 dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts



■ Load Switches MC Size 3 - 4-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 630A - Load Switches, not remote releasable			
Switch Disconnector, 4-pole, 400A	MC3-PN-4-400		MC340044
Switch Disconnector, 4-pole, 630A	MC3-PN-4-630		MC363044
400 to 630A - Load Switches, remote releasable			
Switch Disconnector, 4-pole, 400A for remote operation	MC3-N-4-400	300 0-0	MC340045
Switch Disconnector, 4-pole, 630A for remote operation	MC3-N-4-630	000 0-0	MC363045



Load Switches MC Size 3 - Accessories







MC390042



MC390140



MC391700



MC391668



MC396804



MC391583



MC394545



MC900002





MM216376



MM107899

Schrack-Info

- Auxiliary contacts
- Door couplings
- Rotary handles and plug in sockets
- Terminal covers
- Residual current release
- Remote operator

■ Load Switches MC Size 3 - Accessories

DESCRIPTION I	TVDE NO	43/4114515	00000000
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Spacer, MC3	MC3-XAB	000 0=0	MC390211
Door Sealing Frame for MC3	MC3-XBR		MC394645
Main switch set with door interlock, black/grey, MC3	MC3-XHB		MC396628
Main switch set with door interlock, red/yellow, MC3	MC3-XHBR		MC396634
Early make auxiliary contact, MC2/3	MC2/3-XHIV	000 0-0	MC299430
Connecting technic, accessories			
Screw connection 3-pole for MC3	MC3-XKS		MC390039
Cable Lug 185mm² MC3	MC3-XKS185	388 0-0	MC390040
Cable Lug 240mm² MC3	MC3-XKS240	000 0-0	MC390041
Box Terminal 3-pole for MC3	MC3-XKC	688 6-6	MC390042
Terminal Cover 3-pole, MC3	MC3-XKSA	000 0-0	MC390045
Phase Separator Plate, 3-pole, MC3	MC3-XKP	000 0-0	MC390512
Connection Width Extension 3-pole 630A, MC3	MC3-XKV70	000 0-0	MC390514
Box Terminal 300mm ² 3-pole, MC3	MC3-XK300		MC390782
Connection Terminals max. 22x21 mm², 3-pole	MC3-XK22X21		MC390784
Tunnel Terminal 3-pole 1x185mm² for MC3	MC3-XKA1	000 0-0	MC391459
Tunnel Terminal 3-pole 2x240mm² for MC3	MC3-XKA2	999 0- 0	MC391461
60mm Busbar Adapter 630A, 3-pole, MC3	32170	388 0-8	MC391700
Cover for Adapter MC3, 3-pole	MC3-XKR13	088 0-0	MC391668
Connection cover, knock-out able, 3-pole for MC3	MC3-XKSFA		MC394642
Rear Connection 3-pole, MC3	MC3-XKR		MC396792
Control Circuit Terminal for Screw Connection, MC3/MC4	MC3/4-XSTS	355 0-6	MC396797
IP2x Finger Protection for Box Terminal, 3-pole, MC3	MC3-XIPK	000 0-0	MC396804
IP2x Finger Protection for Terminal Cover, 3-pole, MC3	MC3-XIPA	000 0-6	MC396808
Phase Separator Plate, 4-pole, MC3	MC3-4-XKP		MC390513
Connection Width Extension 4-pole 630A, MC3	MC3-4-XKV70		MC390515
Box Terminal 300mm² 4-pole, MC3	MC3-4-XK300		MC390783
Connection Terminals max.22x21 mm², 4-pole	MC3-XK22X21		MC390785
Tunnel Terminal 4-pole 1x185mm² for MC3	MC3-4-XKA1		MC391460
Tunnel Terminal 4-pole 2x240mm² for MC3	MC3-4-XKA2	388 0-0	MC391462
Connection cover, knock-out able, 4-pole for MC3	MC3-4-XKSFA		MC394643
Extra Cover for Remote Operator for MC3 4-pole	MC3-XAVPR	355 0-6	MC396678
Screw connection 4-pole for MC3	MC3-4-XKS		MC396780
Box Terminal 4-pole for MC3	MC3-4-XKC		MC396783
Rear Connection 4-pole, MC3	MC3-4-XKR		MC396795
Terminal Cover 4-pole, MC3	MC3-4-XKSA	300 0-0	MC396801
IP2x Finger Protection for Box Terminal, 4-pole, MC3	MC3-4-XIPK		MC396805
IP2x Finger Protection for Terminal Cover, 4-pole, MC3	MC3-4-XIPA		MC396809
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable, black/grey for MC3	MC3-XDV	000 0-0	MC390129
Rotary Handle complete, lockable, red/yellow for MC3	MC3-XDVR	000 0=0	MC390140
Door Coupling Rotary Handle, lockable, black/grey, MC3	MC3-XTVD	000 0-0	MC390170
Door Coupling Rotary Handle, lockable, black/grey 0/1, MC3	MC3-XTVDV		MC390176
Door Coupling Rotary Handle, lockable, red/yellow, MC3	MC3-XTVDVR	Jimes In	MC390182
Extension Shaft 600mm, MC3/4	MC3/4-XV6		MC390193
Extension Shaft 400mm, MC3/4	MC3/4-XV4	Design Frg.	MC390193 MC391234
Mechanical Interlock for MC3	·		MC391234 MC391583
Mechanical Interlock for MC3 Mechanical Interlock for Remote Operator MC3/4	MC3-XMV	000 0-0	MC391583 MC394546
·	MC3/4-XMVR	333 0-0	
Mechanical Interlock for Remote Operator MC3, long	MC3-XMVRL	350 0-0	MC394550
Mechanical Interlock for Remote Operator MC3/4, long	MC3/4-XMVRL		MC394551

■ Load Switches MC Size 3 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Rotary handles, door coupling handles, accessories			
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	555 0- 8	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	500 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	500 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Mechanical Interlock for Remote Operator for MC3	MC3-XMVR	000 0-0	MC394545
Remote Operator 24-30V DC for MC3 can be synchronised and interlocked	MC3-XR240DC	000 0-0	MC399854
Remote Operator 48-60V DC for MC3 can be synchronised and interlocked	MC3-XR48-60DC		MC399856
Remote Operator 208-240V AC for MC3 can be synchronised and interlocked	MC3-XR208-240AC	000 0-0	MC399850
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-0,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0=0	MC900030
Current Transformer dm=35mm	FIR-WS-35	555 0-0	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	000 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	555 0- 8	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





Load Switches MC Size 4 - 3-pole

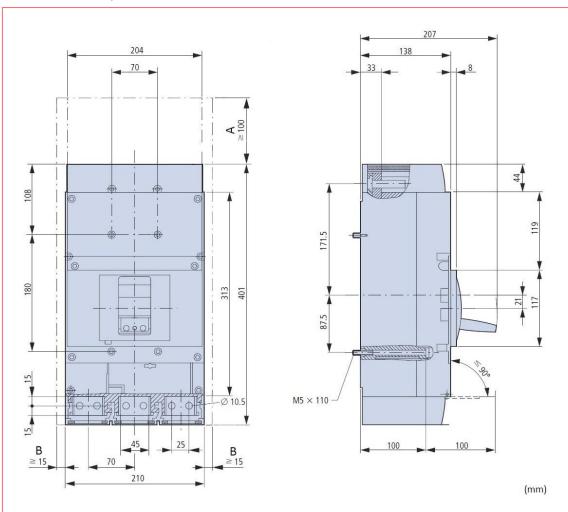


Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Switching capacity Icm = 53kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 800A to 1600A

without thermomagnetic release u		
Rated current I	800 - 1600A	
Rated voltage U _e	440VAC	
Rated short-circuit making capacity		
I _m at 415V 50/60Hz	53kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-3	

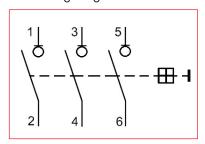
■ Load Switch 3-pole MC4..035 dimensions



- A) Blow out area, minimum distance to other parts ≥100mm up to 690V; ≥ 200mm up to 1000V
- B) Minimum distance to other parts



■ Load Switches MC Size 4 - 3-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A - Load Switches, remote releasable			
Switch Disconnector, 3-pole, 800A for remote operation	MC4-N-800	000	MC480035
Switch Disconnector, 3-pole, 1000A for remote operation	MC4-N-1000	300 0-0	MC410035
Switch Disconnector, 3-pole, 1250A for remote operation	MC4-N-1250	000 0-0	MC412035
Switch Disconnector, 3-pole, 1600A for remote operation	MC4-N-1600	333 0-0	MC416035





Load Switches MC Size 4 - 4-pole

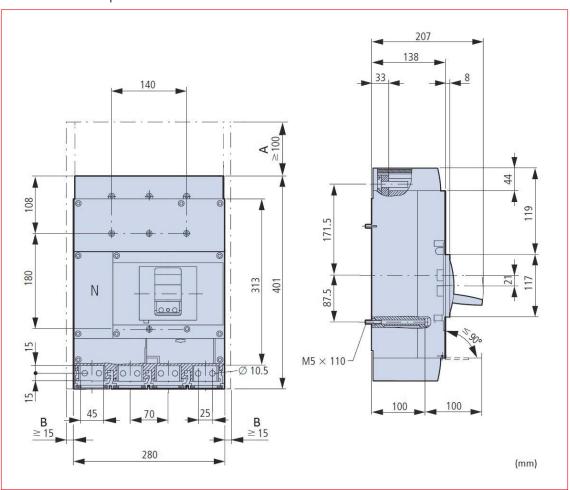


Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Switching capacity Icm = 53kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 800A to 1600A

	without thermomagnetic release unit
Rated current I	800 - 1600A
Rated voltage U	440VAC
Rated short-circuit making capacity	
I _m at 415V 50/60Hz	53kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

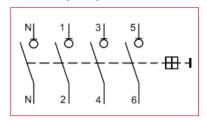
■ Load Switch 4-pole MC4..045 dimensions



- **A)** Blow out area, minimum distance to other parts \geq 100mm up to 690V; \geq 200mm up to 1000V
- **B)** Minimum distance to other parts



■ Load Switches MC Size 4 - 4-pole



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A - Load Switches, remote releasable			
Switch Disconnector, 4-pole, 800A for remote operation	MC4-N-4-800		MC480045
Switch Disconnector, 4-pole, 1000A for remote operation	MC4-N-4-1000		MC410045
Switch Disconnector, 4-pole, 1250A for remote operation	MC4-N-4-1250		MC412045
Switch Disconnector, 4-pole, 1600A for remote operation	MC4-N-4-1600		MC416045

Load Switches MC Size 4 - Accessories







MC496837







MC496820



MC900003

MC496614



MC491584



MC496204





MC900020

Schrack-Info

- Auxiliary contacts
- Door couplings
- Rotary handles
- Terminal covers
- Residual current release
- Remote operator
- Withdrawable modules

■ Load Switches MC Size 4 - Accessories

Lodd Gwileilos Wic Gize 4 Meeessones			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Main switch set for MC4	MC4-XHB		MC491779
Main switch set for MC4 with door interlock, Emergency-Stop, red/yellow, for MC4	MC4-XHBR		MC491842
Early-Make auxiliary contact, MC4	MC4-XHIV		MC496172
Door Sealing Frame for MC4	MC4-XBR		MC494646
Connecting technic, accessories			
Connection Width Extension 3-pole 1600A, long, MC4	MC4-XKV110	300 0-0	MC491593
Connection Width Extension 4-pole 1600A, long, MC4	MC44XKV120		MC491594
Connection Width Extension 4-pole 1600A, MC4	MC4-4-XKV95		MC496827
Connection cover, knock-out able, 3-pole for MC4	MC4-XKSFA		MC492193
Connection cover, knock-out able, 4-pole for MC4	MC4-4-XKSFA		MC492194
Connection Extension 3-pole 1600A, MC4	MC4-XKM2S-1600	300 0-0	MC494473
Connection Extension 4-pole 1600A, MC4	MC4-4-XKM2S-1600		MC494474
Module Plate 1 hole, MC4, 3-pole	MC4-XKM1		MC496814
Module Plate 2 hole, MC4, 3-pole	MC4-XKM2	000 0-0	MC496820
Module Plate 1 hole, MC4, 4-pole	MC4-4-XKM1		MC496815
Module Plate 2 hole, MC4, 4-pole	MC4-4-XKM2		MC496821
Connection Width Extension 3-pole 1600A, MC4	MC4-XKS4	000 0-0	MC496826
Flat Conductor Terminal 3-pole, MC4	MC4-XKB	000 0-0	MC496829
Flat Conductor Terminal 4-pole, MC4	MC4-4-XKB	2 000 0-09	MC496831
Tunnel Terminal 3-pole, 4x240mm² for MC4	MC4-XKA	000 0-0	MC496836
Tunnel Terminal 4-pole, 4x240mm² for MC4	MC4-4-XKA	000 0-0	MC496837
Rear Connection 3-pole, MC4	MC4-XKR	2 000 0-0	MC496842
Rear Connection 4-pole, MC4	MC4-4-XKR		MC496843
Terminal Cover 3-pole, MC4	MC4-XKC	000 0-0	MC496846
Terminal Cover 3-pole, MC4	MC4-4-XKSA	(- 000 :- 0 0 0 0 0 0 0 0-	MC496847
Phase separator plates for MC4, 3-pole	MC4-XKP	388 0- 0	MC496873
Phase separator plates for MC4, 4-pole	MC4-4-XKP	/ - 333 · O	MC496874
Rotary handles, door coupling handles, accessories	MC4 4 Ald		MC470074
Mechanical Interlock for MC4	MC4-XMV		MC491584
Mechanical Interlock for Remote Operator for MC4	MC4-XMVR	000 0-0	MC494547
Mechanical Interlock for Remote Operator for MC4, long	MC4-XMVRL	000 0-0	MC494552
Rotary handle direct, lockable, black/grey	MC4-XDV	988 0- 8	MC496608
Rotary handle direct, lockable, pidck/ grey	MC4-XDVR	988 0-8	MC496610
Door coupling rotary handle, lockable, black/grey	MC4-XTVD		MC496614
		333 0- 0	MC496616
Door coupling rotary handle, 2 x lockable, black/grey	MC4-XTVDV	000 0-0	
Door coupling rotary handle, 2 x lockable, red/yellow	MC4-XTVDVR	300 0-0	MC496618
Undervoltage release units, shunt-trips, motor operators and accessories	MC4 VIII 4AC		MC404190
Undervoltage Release 24VAC for MC4	MC4-XU24AC	333 0- 6	MC496189
Undervoltage Release 110-130VAC for MC4	MC4-XU110-130AC	- Per In	MC496192
Undervoltage Release 208-240VAC for MC4	MC4-XU208-240AC	000 0-0	MC496193
Undervoltage Release 380-440VAC for MC4	MC4-XU380-440AC	Section 1 feet	MC496194
Undervoltage Release 24VDC for MC4	MC4-XU24DC	000 0-0	MC496204
Undervoltage Release 220-250VDC for MC4	MC4-XU220-250DC		MC496208
Undervoltage Release with 2 early make contacts, 230VAC, MC4	MC4-XUHIV208-240		MC496221
Undervoltage Release with 2 early make contacts, 400VAC, MC4	MC4-XUHIV380-440		MC496222
			MC496588
Undervoltage release for time-delay unit, for MC4	MC4-XUV		
Shunt trip 24 VAC/DC for MC4	MC4-XA24AC/DC	000 0-0	MC496447
Shunt trip 24 VAC/DC for MC4 Shunt trip 110-130V AC/DC for MC4			MC496450
Shunt trip 24 VAC/DC for MC4	MC4-XA24AC/DC	200 O- 6	





■ Load Switches MC Size 4 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Shunt trip with early make contact 230VAC/DC for MC4	MC4-XAVHI230AC/DC		MC496475
Remote Operator 24-30V DC for MC4, can be synchronised and interlocked	MC4-XR240DC	555	MC496686
Remote Operator 48-60V DC for MC4, can be synchronised and interlocked	MC4-XR48-60DC	000 0-0	MC496687
Remote Operator 208-240V AC for MC4, can be synchronised and interlocked	MC4-XR208-240AC	000 0-0	MC496685
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	555 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	333 0-0	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	555 0-5	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	333 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





Load Switches MC for 1000VDC, fix installed







MC480045DC

Schrack-Info

• Load break switches type MC 1000VDC, size 2-4, 4-pole, 63 - 1600A, fix installed

Load Switches MC Size 2

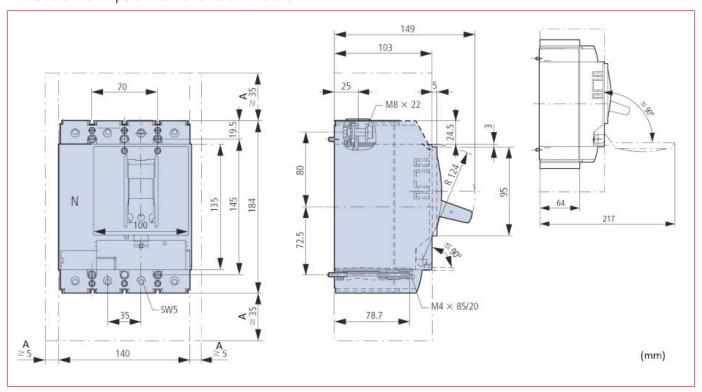


- Load-Break Switches without release unit, for voltages up to 1000VDC
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and
- Recommended serial connectors have to be used
- Switching capacity Icw = 3kA at 1000VDC
- According IEC/EN 60947-3
- Rated continuous current = rated current up to 200A

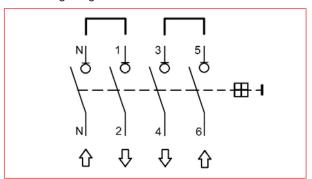
	without thermomagnetic release unit
Rated current I	160 - 200A
Rated voltage U	1000VDC
Rated short-time withstand current t=0.1s	
I at 1000VDC	3kA
Ambient temperature (operation)	-25°C to +65°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

Load Switches MC Size 2

■ Load Switch 4-pole MC2..045DC dimensions

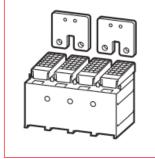


A) Blow out area, minimum distance to other parts



DESCRIPTION	TYPE NO.	AVAILABLE ORDER NO.
up to 200A, remote releasable		
Switch Disconnector, 2/4-pole, 160A for remote operation, 1kVDC	MC2-N-4-160-DC	MC216045DC
Switch Disconnector, 2/4-pole, 200A for remote operation	MC2-N-4-200-DC	MC220045DC

Load Switches MC Size 2 - Accessories



MC290602



MC296720V2



MC290201



MC290038



MC294640



MC296872



MC290032



MC290137



MC191585



MC299499



MC299832



MM216376

- Serial connector containing parts for upper side of 4-pole switches
- MC2-N...-S1-DC, in 2-pole use for DC
- Serial connectors joining 2 current-paths in series
- Incoming feed from top or bottom possible
- Auxiliary contacts
- Door couplings
- Rotary handles and plug in sockets
- Terminal covers
- Residual current release
- Remote operator

■ Load Switches MC Size 2 - Accessories

2 Lodd Owneries Mic 0120 2 Meedssories			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Serial connector			
Serial Connector size 2, 4/2-pole, including cover	MC2-4-XKV2P		MC290602
General accessories			
Toggle Lever Locking Device for MC2	MC2/3-XKAV	000 0-0	MC290201
Clip Plate 75mm for MC2	MC2-XC75		MC290215
Main switch set with door interlock, black/grey, MC2	MC2-XHB		MC296627
Main switch set with door interlock, red/yellow, MC2	MC2-XHBR		MC296633
Early make auxiliary contact, MC2/3	MC2/3-XHIV	000 0-0	MC299430
Connecting technic, accessories			
Terminal Cover 3-pole, MC2	MC2-XKSA	000 0-0	MC290038
Extra Cover for Remote Operator for MC2 4-pole	MC2-XAVPR	000 0-0	MC296677
Control Circuit Terminal for screw connection, MC2	MC2-XSTS	000 0-0	MC290156
Door Sealing Frame for MC2	MC2-XBR		MC290197
Tunnel Terminal 185mm², 3-pole for MC2	MC2-XKA	000 0-0	MC291457
Tunnel Terminal 1x185mm², 4-pole for MC2	MC2-4-XKA	000 0-0	MC291458
Box Terminal 160A for MC2 (3 pcs.)	MC2-160-XKC	000 0-00	MC292240
Box Terminal 250A for MC2 (3 pcs.)	MC2-250-XKC	555 0- 6	MC292244
Box Terminal 160A for MC2 (4 pcs.)	MC2-4-160-XKC	000 0= 0	MC296755
Box Terminal 250A for MC2-4 (4 pcs.)	MC2-4-250-XKC	000 0- 0-	MC296756
Connection Cover 3-pole, MC2	MC2-XKSFA	000 0-0	MC294640
Connection Cover 4-pole, MC2	MC2-4-XKSFA	000 0-0	MC294641
Rear Connection 3-pole, MC2	MC2-XKR	(- 000	MC296765
Rear Connection 4-pole, MC2	MC2-4-XKR		MC296768
Phase separator plates for MC2, 3-pole	MC2-XKP		MC296871
Phase separator plates for MC2, 4-pole	MC2-4-XKP		MC296872
Cable Lug 95mm² MC2	MC2-XKS95		MC299775
Cable Lug 120mm² MC2		088 0-8	MC299776
	MC2-XK\$120		MC299777
Cable Lug 150mm² MC2	MC2-XK\$150	000 0-0	MC299777 MC290032
Cable Lug 185mm² MC2	MC2-XK\$185	999 0- E	
Screw Terminal 3-pole for MC2	MC2-XKS		MC290030
Screw Terminal 4-pole for MC2	MC2-4-XKS	James Inc.	MC296750
Terminal Cover 4-pole, MC2	MC2-4-XKSA	000 0-0	MC296770
IP2x finger protection for terminal cover, 3-pole, MC2	MC2-XIPA	Power Inc.	MC296777
IP2x-protection cover for terminals, 3-pole, for MC2	MC2-XIPK	000 0-6	MC296773
IP2x-protection cover for terminals, 4-pole, for MC2	MC2-4-XIPK		MC296774
IP2x finger protection for terminal cover, 4-pole, MC2	MC2-4-XIPA		MC296778
Control Circuit Unit for auxiliary contact, MC1/2, MC1/2-N	MC2-XSVHI		MC296705
Control Circuit Unit for remote operator	MC2-XSVR		MC296706
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable for MC2	MC2-XDV	000 0-0	MC290127
Rotary Handle with door interlock, black/grey for MC2	MC2-XDTV		MC290133
Rotary Handle red/yellow lockable	MC2-XDVR	999 0-0	MC290137
Rotary Handle emergency stop with door interlock	MC2-XDTVR		MC290144
Door Coupling Rotary Handle, lockable, black/grey, MC2	MC2-XTVD	000 0-0	MC290168
Door Coupling Rotary Handle, lockable, black/grey 0/1, MC2	MC2-XTVDV	000 0-0	MC290174
Door Coupling Rotary Handle, lockable, red/yellow, MC2	MC2-XTVDVR	000 0-0	MC290180
Mechanical Interlock for MC2	MC2-XMV	000 0-0	MC291582
Mechanical Interlock for Remote Operator for MC2	MC2-XMVR	000 0-0	MC294543
Mechanical Interlock for Remote Operator for MC2/3	MC2/3-XMVR	000 0-0	MC294544
Mechanical Interlock for Remote Operator for MC2, long	MC2-XMVRL	000 0-0	MC294548
Mechanical Interlock for Remote Operator for MC2/3, long	MC2/3-XMVRL		MC294549

■ Load Switches MC Size 2 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Rotary handles, door coupling handles, accessories			
Extension Shaft 600mm, MC1/2	MC1/2-XV6	000 0-0	MC190191
Spacer, MC1/2	MC1/2-XAB	000 0-0	MC190203
Extension Shaft 400mm, MC1/2	MC1/2-XV4	000 0-0	MC191232
Door coupling for MC2 60mm	MC2-XTVDVR-60		MC191513
Bowden Cable 225mm	MC-XBZ225	000 0-0	MC191585
Bowden Cable 600mm	MC-XBZ600	355 0- 6	MC191586
Bowden Cable 1000mm	MC-XBZ1000		MC191587
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	666 0- 8	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	000 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Remote Operator 24-30V DC for MC2 can be synchronised and interlocked	MC2-XR240DC	555 0- 0	MC299836
Remote Operator 24-30V DC for MC2 can not be synchronised and interlocked	MC2-XRD240DC	000 0-0	MC299837
Remote Operator 48-60V DC for MC2 can be synchronised and interlocked	MC2-XR48-60DC	355 0- 6	MC299838
Remote Operator 208-240V AC for MC2 can be synchronised and interlocked	MC2-XR208-240AC	988 0= 0	MC299832
Remote Operator 208-240V AC for MC2 can not be synchronised and interlocked	MC2-XRD208-240A	353 0- 0	MC299833
Residual current release units and accessories			
RCD 4-pole for MC2, 30mA, pulse current sensitivity version 2	MC2-4-XFI30 V2		MC296719V2
RCD 4-pole for MC2, 0.1-1A, pulse current sensitivity version 2	MC2-4-XFI	000 0-0	MC296720V2
RCD 4-pole for MC2, 30mA, AC/DC current sensitivity version 2	MC2-4-XFIA30 V2	000 0-0	MC292345V2
RCD 4-pole for MC2, 0.3-1A, AC/DC current sensitivity version 2	MC2-4-XFIA V2	000 0-0	MC292346V2
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940



Load Switches MC Size 3



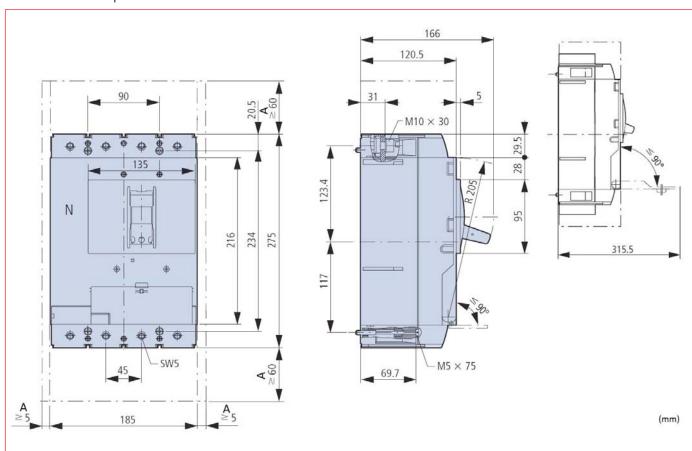
MC340045DC

Schrack-Info

- Load-Break Switches without release unit, for voltages up to 1000VDC
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Recommended serial connectors have to be used
- Switching capacity Icw = 5kA at 1000VDC
- According IEC/EN 60947-3
- Rated continuous current = rated current up to 500A

	without thermomagnetic release unit
Rated current I	320 - 500A
Rated voltage U _e	1000VDC
Rated short-time withstand current t=0.1s	
I at 1000VDC	5kA
Ambient temperature (operation)	-25°C to +65°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

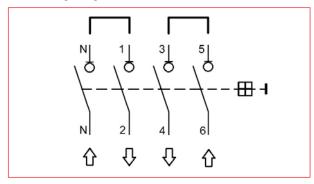
■ Load Switch 4-pole MC3..045DC dimensions



 $\boldsymbol{\mathsf{A}}\boldsymbol{\mathsf{)}}$ Blow out area, minimum distance to other parts

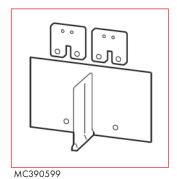


- Load Switches MC Size 3
- Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
up to 500A, remote releasable			
Switch Disconnector 2/4-pole, 320A for remote operation, 1kVDC	MC3-N-4-320-DC		MC332045DC
Switch Disconnector, 2/4-pole, 400A for remote operation, 1kVDC	MC3-N-4-400-DC		MC340045DC
Switch Disconnector, 2/4-pole, 500A for remote operation, 1kVDC	MC3-N-4-500-DC		MC350045DC

Load Switches MC Size 3 - Accessories





MC390211



MC390042



MC390140



MC391460



MC396804



MC391583







MC900070



MM216376



MM107899

- Serial connector containing parts for upper side of 4-pole switches
- MC2-N...-S1-DC, in 2-pole use for DC
- Serial connectors joining 2 current-paths in series
- Incoming feed from top or bottom possible
- Auxiliary contacts
- Door couplings
- Rotary handles and plug in sockets
- Terminal covers
- Residual current release
- Remote operator

■ Load Switches MC Size 3 - Accessories

Load Switches MC Size 3 - Accessories DESCRIPTION	TVDE NO	AVALLABLE	OBDEDINO
	TYPE NO.	AVAILABLE	ORDER NO.
Serial connector			
Serial Connector Size 3, 4/2-pole, isolated	MC3-4-XKVI2P		MC390599
serial Connector Size 3 4/2-pole, isolated + heat sink	MC3-4-XKVI2P-K		MC390600
erial Connector Size 3 4/2-pole, + heat sink, included cover	MC3-4-XKV2P-K		MC390601
Serial Connector Size 3, 4/2-pole, including cover	MC3-4-XKV2P		MC390602
General accessories			
pacer, MC3	MC3-XAB	000 0-0	MC390211
Poor Sealing Frame for MC3	MC3-XBR		MC394645
Aain switch set with door interlock, black/grey, MC3	MC3-XHB		MC396628
Nain switch set with door interlock, red/yellow, MC3	MC3-XHBR		MC396634
onnecting technic, accessories			
crew connection 3-pole for MC3	MC3-XKS		MC390039
table Lug 185mm² MC3	MC3-XKS185	999 0-0-	MC390040
able Lug 240mm² MC3	MC3-XKS240	000 0-0	MC390041
ox Terminal 3-pole for MC3	MC3-XKC	999 0-9	MC390042
erminal Cover 3-pole, MC3	MC3-XKSA	000 0-0	MC390045
nase Separator Plate, 3-pole, MC3	MC3-XKP	999 0-0	MC390512
onnection Width Extension 3-pole 630A, MC3	MC3-XKV70	000 0-0	MC390514
ox Terminal 300mm² 3-pole, MC3	MC3-XK300		MC390782
onnection Terminals max. 22x21 mm², 3-pole	MC3-XK22X21		MC390784
nnel Terminal 3-pole 1×185mm² for MC3	MC3-XKA1	999 0-0	MC391459
nnel Terminal 3-pole 2x240mm² for MC3	MC3-XKA2	900 0-0	MC391461
onnection cover, knock-out able, 3-pole for MC3	MC3-XKSFA		MC394642
ear Connection 3-pole, MC3	MC3-XKR		MC396792
ontrol Circuit Terminal for Screw Connection, MC3/MC4	MC3/4-XSTS	000 0-0	MC396797
22x Finger Protection for Box Terminal, 3-pole, MC3	MC3-XIPK	000 0=0	MC396804
2x Finger Protection for Terminal Cover, 3-pole, MC3	MC3-XIPA	988 0-8	MC396808
hase Separator Plate, 4-pole, MC3	MC3-4-XKP		MC390513
onnection Width Extension 4-pole 630A, MC3	MC3-4-XKV70		MC390515
ox Terminal 300mm² 4-pole, MC3	MC3-4-XK300		MC390783
onnection Terminals max.22x21 mm², 4-pole	MC3-XK22X21		MC390785
unnel Terminal 4-pole 1x185mm² for MC3	MC3-4-XKA1		MC391460
unnel Terminal 4-pole 2x240mm² for MC3	MC3-4-XKA2	555 0- 0	MC391462
Connection cover, knock-out able, 4-pole for MC3	MC3-4-XKSFA		MC394643
xtra Cover for Remote Operator for MC3 4-pole	MC3-XAVPR	555 0- 0-	MC396678
crew connection 4-pole for MC3	MC3-4-XKS		MC396780
ox Terminal 4-pole for MC3	MC3-4-XKC		MC396783
ear Connection 4-pole, MC3	MC3-4-XKR		MC396795
erminal Cover 4-pole, MC3	MC3-4-XKSA	555 0-5	MC396801
2x Finger Protection for Box Terminal, 4-pole, MC3	MC3-4-XIPK		MC396805
2x Finger Protection for Terminal Cover, 4-pole, MC3	MC3-4-XIPA		MC396809
otary handles, door coupling handles, accessories			
otary Handle complete, lockable, black/grey for MC3	MC3-XDV	000 0-0	MC390129
otary Handle complete, lockable, red/yellow for MC3	MC3-XDVR	000 0-0	MC390140
oor Coupling Rotary Handle, lockable, black/grey, MC3	MC3-XTVD	000 0-0	MC390170
oor Coupling Rotary Handle, lockable, black/grey 0/1, MC3	MC3-XTVDV	000 0-0	MC390176
oor Coupling Rotary Handle, lockable, red/yellow, MC3	MC3-XTVDVR	000 0= 0	MC390182
extension Shaft 600mm, MC3/4	MC3/4-XV6	000 0-0	MC390193
xtension Shaft 400mm, MC3/4	MC3/4-XV4	000 0-0	MC391234
Acchanical Interlock for MC3	MC3-XMV		MC391583
Aechanical Interlock for Remote Operator MC3/4	MC3/4-XMVR	James In	MC394546
Todamica inichock for remote Operator MCO/ 4	141C3/ 4-A1414 K	333 0-6	

▼ Load Switches MC Size 3 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Rotary handles, door coupling handles, accessories			
Mechanical Interlock for Remote Operator MC3, long	MC3-XMVRL	000 0=0	MC394550
Mechanical Interlock for Remote Operator MC3/4, long	MC3/4-XMVRL		MC394551
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0-	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0-	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	000 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0=0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Mechanical Interlock for Remote Operator for MC3	MC3-XMVR	000 0-0	MC394545
Remote Operator 24-30V DC for MC3 can be synchronised and interlocked	MC3-XR240DC	000 0-0	MC399854
Remote Operator 48-60V DC for MC3 can be synchronised and interlocked	MC3-XR48-60DC		MC399856
Remote Operator 208-240V AC for MC3 can be synchronised and interlocked	MC3-XR208-240AC	000 0-0	MC399850
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-0,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0- 0-	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	900 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	999 0- 8	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0=0	MC900140
Current Transformer dm=210mm	FIR-W-210	000 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	988 0-8	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	988 0-8	MM107899
NO+NC, Cage clamp	M22-CK11	000 0=0	MM107940



Load Switches MC Size 4



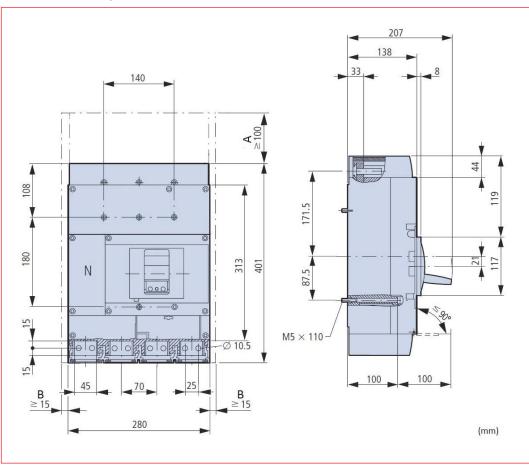
MC410045DC

Schrack-Info

- Load Break Switches without release unit for voltages up to 1000VDC
- Screw terminals as standard
- Types for remote trip can be fitted with auxiliary contacts, remote operator, undervoltage- and shunt release
- Incoming feed from top or bottom possible
- Switching capacity Icw = 25kA at 1000VDC
- Meets IEC/EN 60947-3
- Rated uninterrupted current = Rated current 800 up to 1400A

	without thermomagnetic release unit
Rated current I	800 - 1400A
Rated voltage U	1000VDC
Rated short-time withstand current t=0.1s	
I _{sw} at 1000VDC	25kA
Ambient temperature (operation)	-25°C to +65°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

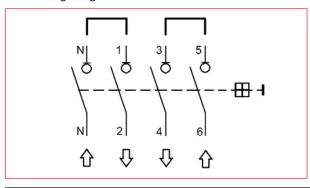
Load Switch 4-pole MC4..045DC dimensions



- **A)** Blow out area, minimum distance to other parts \geq 100mm up to 690V; \geq 200mm up to 1000V
- **B)** Minimum distance to other parts



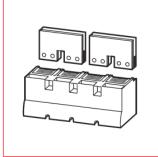
Load Switches MC Size 4



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
up to 1400A, remote releasable			
Switch Disconnector, 2/4-pole, 800A for remote operation, 1kVDC	MC4-N-4-800-DC		MC480045DC
Switch Disconnector, 2/4-pole, 1000A for remote operation, 1kVDC	MC4-N-4-1000-DC		MC410045DC
Switch Disconnector, 2/4-pole, 1250A for remote operation, 1kVDC	MC4-N-4-1250-DC		MC412045DC
Switch Disconnector, 2/4-pole, 1400A for remote operation, 1kVDC	MC4-N-4-1400-DC		MC414045DC



Load Switches MC Size 4 - Accessories







MC491593



MC496820



MC496837



MC496608



MC496614



MC491584



MC496204





MC900020



MC910175



MC496685

- Serial connector containing parts for upper side of 4-pole switches
- MC2-N...-S1-DC, in 2-pole use for DC
- Serial connectors joining 2 current-paths in series
- Incoming feed from top or bottom possible
- ≥1250A: at 65°C ambient temperature, infeed from bottom by use of module plates MC4-4-XKM2S-1600
- Auxiliary contacts
- Door couplings
- Rotary handles
- Terminal covers
- Residual current release
- Remote operator
- Withdrawable modules

■ Load Switches MC Size 4 - Accessories

DESCRIPTION AND THE SIZE I PROCESSION	TVDE NIO	AV/AU ADIE	00000000
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Serial connector			
Serial Connector Size 4, 4/2-pole, including cover, 1250A	MC4-4-XKV2P		MC490602
General accessories			
Main switch set for MC4	MC4-XHB		MC491779
Main switch set for MC4 with door interlock, Emergency-Stop, red/yellow, for MC4	MC4-XHBR		MC491842
Early-Make auxiliary contact, MC4	MC4-XHIV		MC496172
Door Sealing Frame for MC4	MC4-XBR		MC494646
Connecting technic, accessories			
Connection Width Extension 3-pole 1600A, long, MC4	MC4-XKV110	999 0- 0	MC491593
Connection Width Extension 4-pole 1600A, long, MC4	MC44XKV120		MC491594
Connection Width Extension 4-pole 1600A, MC4	MC4-4-XKV95		MC496827
Connection cover, knock-out able, 3-pole for MC4	MC4-XKSFA		MC492193
Connection cover, knock-out able, 4-pole for MC4	MC4-4-XKSFA		MC492194
Connection Extension 3-pole 1600A, MC4	MC4-XKM2S-1600	555 0-0	MC494473
Connection Extension 4-pole 1600A, MC4	MC4-4-XKM2S-1600		MC494474
Module Plate 1 hole, MC4, 3-pole	MC4-XKM1	000 0-0	MC496814
Module Plate 2 hole, MC4, 3-pole	MC4-XKM2	300 0-0	MC496820
Module Plate 1 hole, MC4, 4-pole	MC4-4-XKM1		MC496815
Module Plate 2 hole, MC4, 4-pole	MC4-4-XKM2		MC496821
Connection Width Extension 3-pole 1600A, MC4	MC4-XKS4	555 0- 0	MC496826
Flat Conductor Terminal 3-pole, MC4	MC4-XKB	355 0- 0-	MC496829
Flat Conductor Terminal 4-pole, MC4	MC4-4-XKB		MC496831
Tunnel Terminal 3-pole, 4x240mm² for MC4	MC4-XKA	555 0-5	MC496836
Tunnel Terminal 4-pole, 4x240mm² for MC4	MC4-4-XKA	588 0-8	MC496837
Rear Connection 3-pole, MC4	MC4-XKR		MC496842
Rear Connection 4-pole, MC4	MC4-4-XKR		MC496843
Terminal Cover 3-pole, MC4	MC4-XKC	380 0-0	MC496846
Terminal Cover 3-pole, MC4	MC4-4-XKSA		MC496847
Phase separator plates for MC4, 3-pole	MC4-XKP	388 0-0	MC496873
Phase separator plates for MC4, 4-pole	MC4-4-XKP		MC496874
Rotary handles, door coupling handles, accessories			
Mechanical Interlock for MC4	MC4-XMV	355 0= 0	MC491584
Mechanical Interlock for Remote Operator for MC4	MC4-XMVR	355 0- 5	MC494547
Mechanical Interlock for Remote Operator for MC4, long	MC4-XMVRL		MC494552
Rotary handle direct, lockable, black/grey	MC4-XDV	355 0- 8-	MC496608
Rotary handle direct, lockable, red/yellow	MC4-XDVR		MC496610
Door coupling rotary handle, lockable, black/grey	MC4-XTVD	388 0- 0-	MC496614
Door coupling rotary handle, 2 x lockable, black/grey	MC4-XTVDV	988 0- 0	MC496616
Door coupling rotary handle, 2 x lockable, red/yellow	MC4-XTVDVR	333 0- 9	MC496618
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage Release 24VAC for MC4	MC4-XU24AC	000 0-0	MC496189
Undervoltage Release 110-130VAC for MC4	MC4-XU110-130AC		MC496192
Undervoltage Release 208-240VAC for MC4	MC4-XU208-240AC	555 0-6	MC496193
Undervoltage Release 380-440VAC for MC4	MC4-XU380-440AC		MC496194
Undervoltage Release 24VDC for MC4	MC4-XU24DC	000 0- 0-	MC496204
Undervoltage Release 220-250VDC for MC4	MC4-XU220-250DC		MC496208
Undervoltage Release with 2 early make contacts, 230VAC, MC4	MC4-XUHIV208-240		MC496221
Undervoltage Release with 2 early make contacts, 400VAC, MC4	MC4-XUHIV380-440		MC496222
Undervoltage release for time-delay unit, for MC4	MC4-XUV		MC496588
Shunt trip 24 VAC/DC for MC4	MC4-XA24AC/DC	000 0-0	MC496447
Shunt trip 110-130V AC/DC for MC4	MC4-XA110-130AC/DC	000 0= 6	MC496450
Green inp. 110-1001 710/ DO 101 11104	14104-1A110-130AC/DC		7110470430

■ Load Switches MC Size 4 - Accessories

Shurt hip 208-250V AC/DC for MC4 MC4-XA208-250AC/DC MC496451 MC4-XA2VH124AC/DC MC496451 MC4-XA2VH123AC/DC MC496471 MC4-XA2VH123AC/DC MC496475 MC496475 MC496475 MC496475 MC496476 MC4-XA2VH123AC/DC MC496476 MC4-XA2VH123AC/DC MC496476 MC4-XA2VH123AC/DC MC496476 MC4-XA2VH123AC/DC MC496476 MC4-XA2VH123AC/DC MC496476 MC4-XA2VH123AC/DC MC496686 MC4-XR240DC MC4-XR240DC MC496686 MC4-XR240DC MC496686 MC4-XR240B-240AC MC4-XR24B-240AC MC4-XR2	DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Shurt trip with early make contact 24VAC/DC for MC4 MC4-XAVH124AC/DC MC496471 Shurt trip with early make contact 230VAC/DC for MC4 MC4-XAVH123AC/DC MC496485 MC4-XR24DDC MC496687 MC496687 MC4-XR24DDC MC496687 MC4-XR24DDC MC496687 MC496687 MC496687 MC496687 MC4-XR28-20DC MC496687 MC496687 MC496687 MC496687 MC496687 MC496687 MC496687 MC496687 MC496687 MC4966887 MC4966887 MC4966887 MC4966887 MC4966887 MC4966888 Residual current release units and accessories Starth Leokage Release 0.03A FIR-0,03 MC900001 FIR-0,3 MC900002 FIR-5 MC9000003 MC900003 MC900003 MC900001 FIR-5 MC9000003 MC900003 MC900001 MC900003 MC900003 MC900001 MC900003 MC900001 MC900003 MC900001 MC900003 MC900001 MC900003 MC90003	Undervoltage release units, shunt-trips, motor operators and accessories			
Shunt tip with early make contact 230VAC/DC for MC4 MC496475 Remote Operator 24-30V DC for MC4, can be synchronised and interlocked MC4-XR240DC MC496686 MC4-XR240DC MC496687 MC496687 MC496687 MC496687 MC496687 MC496687 MC4966887 MC4966887 MC4-XR208-240AC MC496687 MC4966887 MC4966887 MC4966887 MC4966887 MC4966887 MC496888-240AC MC4966887 MC4966887 MC4966888 MC4-XR208-240AC MC4966887 MC4966887 MC4966888 MC4-XR208-240AC MC4966887 MC4966888 MC4-XR208-240AC MC4966887 MC4966888 MC4-XR208-240AC MC4966887 MC4966888 MC4-XR208-240AC MC49668888 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC496688 MC4-XR208-240AC MC4966888 MC4-XR208-240AC MC496688 MC4-XR208-240AC MC4-XR208-240AC MC496688 MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC4-XR208-240AC MC	Shunt trip 208-250V AC/DC for MC4	MC4-XA208-250AC/DC	588 0-6	MC496451
temote Operator 24-30V DC for MC4, can be synchronised and interlocked temote Operator 28-30V DC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240V AC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4900010 temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4, can be synchronised and interlocked temote Operator 28-240VAC for MC4900010 temote Operator 28-240VAC for MC4900010 temote Tourset Transformer 4m-20mm temote Operator 28-240VAC for MC4900010 temote Tourset Transformer 4m-20mm temote Operator 28-240VAC for MC4900010 temote Tourset Transformer 4m-20mm temote Operator 28-240VAC for MC4900010 temote Operator 28-240	Shunt trip with early make contact 24VAC/DC for MC4	MC4-XAVHI24AC/DC		MC496471
Remote Operator 48-60V DC for MC4, can be synchronised and interlocked MC4-XR48-60DC Image: MC496687 Remote Operator 208-240V AC for MC4, can be synchronised and interlocked MC4-XR208-240AC MC496685 Remote Operator 208-240V AC for MC4, can be synchronised and interlocked MC4-XR208-240AC MC496685 Residual current release units and accessories MC900001 MC900001 Sorth Leakage Release 0.03A FIR-0,3 MC9000002 Sorth Leakage Release 0.03-A, 0.02-5s, 1CO FIR-5 MC9000003 Mcagnetic Shielding for Core balance transformer MC900035 FIR-WMA-25 MC900010 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 MC900012 Magnetic Shielding for Core balance transformer MC900104 FIR-WMA-210 MC900013 Magnetic Shielding for Core balance transformer MC900210 FIR-WS-20 MC9000020 Current Transformer dm=30mm FIR-WS-30 MC9000030 Current Transformer dm=30mm FIR-WS-30 MC9000030 Current Transformer dm=105mm FIR-W-105 MC9000030 Current Transformer dm=105mm FIR-W-105 MC9000105 Current Transformer dm=105mm FIR-W-210 <t< td=""><td>Shunt trip with early make contact 230VAC/DC for MC4</td><td>MC4-XAVHI230AC/DC</td><td></td><td>MC496475</td></t<>	Shunt trip with early make contact 230VAC/DC for MC4	MC4-XAVHI230AC/DC		MC496475
Remote Operator 208-240V AC for MC4, can be synchronised and interlocked Residual current release units and accessories Ramit leckage Release 0.03A FIR-0,03 MC900001 FIR-0,03 MC900002 FIR-5 MC900003 Mc900003 Mcgonetic Shielding for Core balance transformer MC900035 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 Mc900012 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 Mc900012 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 Mc900012 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 Mc900012 Magnetic Shielding for Core balance transformer MC900105 FIR-WMA-105 Mc900012 Magnetic Shielding for Core balance transformer MC900100 FIR-WMA-210 Mc900013 Magnetic Shielding for Core balance transformer MC900100 FIR-WMA-210 Mc900010 Mc900010 Mc900010 FIR-WS-30 Mc900010 Mc900010 FIR-WS-30 Mc900010 Mc900010 FIR-WS-30 Mc900010 Mc900010 FIR-WS-30 Mc900030 FIR-WS-30 Mc900030 FIR-WS-30 Mc900030 FIR-WS-30 Mc900030 Current Transformer dm=70mm FIR-W-105 Mc900030 Current Transformer dm=105mm FIR-W-105 Mc900010 Current Transformer dm=105mm FIR-W-105 Mc900010 Current Transformer dm=210mm FIR-W-105 Mc900010 Current Transformer dm=210mm FIR-W-210 Mc900010 Current Transformer dm=210mm FIR-W-305 Mc900010 Current Transformer T15x305mm FIR-WR-305 Mc900030 Mc910350 Mc910350 Mc910350 Mc910350 Mc910350 Mc910350 Mc910378 Mc91037	Remote Operator 24-30V DC for MC4, can be synchronised and interlocked	MC4-XR240DC	000 0-0	MC496686
Residual current release units and accessories	Remote Operator 48-60V DC for MC4, can be synchronised and interlocked	MC4-XR48-60DC	000 0-0	MC496687
Earth Leckage Release 0.03A	Remote Operator 208-240V AC for MC4, can be synchronised and interlocked	MC4-XR208-240AC	555 0- 0	MC496685
Carth Leokage Release 0.3A FiR-0,3 MC900002	Residual current release units and accessories			
Acarth Leokage Release 0.03-5A, 0.02-5s, 1CO FIR.5 MC900003 Magnetic Shielding for Core balance transformer MC900070 Magnetic Shielding for Core balance transformer MC900070 Magnetic Shielding for Core balance transformer MC900105 Magnetic Shielding for Core balance transformer MC900105 Magnetic Shielding for Core balance transformer MC900100 Mc900010 Mc900010 Mc900020 Mc900030 Mc9	Earth Leakage Release 0.03A	FIR-0,03		MC900001
Adagnetic Shielding for Core balance transformer MC900035 FIR.WMA-35 MC900010 Adagnetic Shielding for Core balance transformer MC900070 FIR.WMA-70 MC900011 Adagnetic Shielding for Core balance transformer MC900105 FIR.WMA-105 MC900012 Adagnetic Shielding for Core balance transformer MC900140 FIR.WMA-140 MC900013 Adagnetic Shielding for Core balance transformer MC900210 FIR.WMA-210 MC900014 Current Transformer dm=20mm FIR.WS-20 MC900020 Current Transformer dm=30mm FIR.WS-30 MC900030 Current Transformer dm=35mm FIR.WS-35 MC900030 Current Transformer dm=105mm FIR.W-70 MC900070 Current Transformer dm=105mm FIR.W-105 MC900070 Current Transformer dm=105mm FIR.W-105 MC9000105 Current Transformer dm=105mm FIR.W-100 MC9000105 Current Transformer dm=105mm FIR.W-140 MC9000105 Current Transformer dm=105mm FIR.W-130 MC9000105 Current Transformer 150x305mm FIR.WR-305 MC910305 Current Transformer 150x350mm FIR.WR-350 MC910305	Earth Leakage Release 0.3A	FIR-0,3	000 0-0	MC900002
Adagnetic Shielding for Core balance transformer MC900070 FIR.WMA-70 MC900011 Adagnetic Shielding for Core balance transformer MC900105 FIR.WMA-105 MC900012 Adagnetic Shielding for Core balance transformer MC900140 FIR.WMA-140 MC900013 Adagnetic Shielding for Core balance transformer MC900210 FIR.WMA-210 MC900014 Current Transformer dm=20mm FIR.WS-20 MC900020 Current Transformer dm=30mm FIR.WS-30 MC900030 Current Transformer dm=35mm FIR.WS-30 MC900030 Current Transformer dm=105mm FIR.W-70 MC900070 Current Transformer dm=105mm FIR.W-105 MC9000105 Current Transformer dm=105mm FIR.W-140 MC900105 Current Transformer dm=210mm FIR.W-140 MC900110 Current Transformer dm=210mm FIR.W-140 MC900110 Current Transformer 115x305mm FIR.W-175 MC900110 Current Transformer 150x350mm FIR.W-305 MC910350 Auxiliary contacts MC2-K10 MM216376 NC contact block, front montage M22-K10 MM216378 Noule NC contact, Cage c	Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	566 0-0	MC900003
Adagnetic Shielding for Core balance transformer MC900105 FIR.WMA-105 MC900012 Adagnetic Shielding for Core balance transformer MC900140 FIR.WMA-140 MC900013 Adagnetic Shielding for Core balance transformer MC900210 FIR.WMA-210 MC900014 Current Transformer dm=20mm FIR.WS-20 MC900020 Current Transformer dm=30mm FIR.WS-30 MC900030 Current Transformer dm=35mm FIR.WS-35 MC9000035 Current Transformer dm=70mm FIR.W-70 MC9000070 Current Transformer dm=105mm FIR.W-105 MC9000105 Current Transformer dm=140mm FIR.W-140 MC900140 Current Transformer dm=210mm FIR.W-210 MC900140 Current Transformer 370x175mm FIR.WR-175 MC900175 Current Transformer 150x305mm FIR.WR-305 MC910305 Current Transformer 150x350mm FIR.WR-350 MC910350 Auxiliary contacts MC2-K10 MM216376 NC contact block, front montage M22-K10 MM216378 No contact block, front montage M22-K20 MM107899 No ble NC contact, Cage clamp M	Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Adagnetic Shielding for Core balance transformer MC90010 FIR-WMA-140 MC900013 Wagnetic Shielding for Core balance transformer MC900210 FIR-WMA-210 MC900014 Current Transformer dm=20mm FIR-WS-20 MC900020 Current Transformer dm=30mm FIR-WS-30 MC900030 Current Transformer dm=35mm FIR-WS-35 MC900035 Current Transformer dm=70mm FIR-W-70 MC900070 Current Transformer dm=105mm FIR-W-105 MC900105 Current Transformer dm=140mm FIR-W-140 MC900140 Current Transformer dm=210mm FIR-W-120 MC900105 Current Transformer 70x175mm FIR-WR-175 MC900105 Current Transformer 115x305mm FIR-WR-305 MC910350 Auxiliary contacts MC2-K10 MM216376 NC contact block, front montage M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 Double NC contact, Cage clamp MM22-CK02 MM107899	Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900210 FIR-WMA-210 MC900014 Current Transformer dm=20mm FIR-WS-20 MC900020 Current Transformer dm=30mm FIR-WS-30 MC900030 Current Transformer dm=35mm FIR-WS-35 MC900035 Current Transformer dm=70mm FIR-W-70 MC900070 Current Transformer dm=105mm FIR-W-105 MC900105 Current Transformer dm=140mm FIR-W-140 MC900140 Current Transformer dm=210mm FIR-W-210 MC900210 Current Transformer 70x175mm FIR-WR-350 MC910375 Current Transformer 15tx305mm FIR-WR-350 MC910350 Auxiliary contacts MC2-K10 MM216376 NC contact block, front montage M22-K10 MM216378 Nouble NO contact, Cage clamp M22-K20 MM107898 Nouble NC contact, Cage clamp MM107899	Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
FIR-WS-20	Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Current Transformer dm=30mm FIR.WS-30 MC900030 Current Transformer dm=35mm FIR.WS-35 MC900035 Current Transformer dm=70mm FIR.W-70 MC900070 Current Transformer dm=105mm FIR.W-105 MC900105 Current Transformer dm=140mm FIR.W-140 MC900140 Current Transformer dm=210mm FIR.W-210 MC900210 Current Transformer 70x175mm FIR.WR-175 MC910175 Current Transformer 115x305mm FIR.WR-305 MC910305 Current Transformer 150x350mm FIR.WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 NC contact block, front montage M22-CK20 MM107898 Oouble NC contact, Cage clamp M22-CK20 MM107899	Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=35mm	Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=70mm FIR.W-70 MC900070 Current Transformer dm=105mm FIR.W-105 MC900105 Current Transformer dm=140mm FIR.W-140 MC900140 Current Transformer dm=210mm FIR.W-210 MC900210 Current Transformer 70x175mm FIR.WR-175 MC910175 Current Transformer 115x305mm FIR.WR-305 MC910305 Current Transformer 150x350mm FIR.WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K10 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 Double NC contact, Cage clamp M22-CK02 MM107899	Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=105mm FIR-W-105 MC900105 Current Transformer dm=140mm FIR-W-140 MC900140 Current Transformer dm=210mm FIR-W-210 MC900210 Current Transformer 70x175mm FIR-WR-175 MC910175 Current Transformer 115x305mm FIR-WR-305 MC910305 Current Transformer 150x350mm FIR-WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K10 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 Double NC contact, Cage clamp M22-CK02 MM107899	Current Transformer dm=35mm	FIR-WS-35	000 0-0	MC900035
Current Transformer dm=140mm FIR-W-140 MC900140 Current Transformer dm=210mm FIR-W-210 MC900210 Current Transformer 70x175mm FIR-WR-175 MC910175 Current Transformer 115x305mm FIR-WR-305 MC910305 Current Transformer 150x350mm FIR-WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 Pouble NO contact, Cage clamp M22-CK20 MM107898 Pouble NC contact, Cage clamp M22-CK02 MM107899	Current Transformer dm=70mm	FIR-W-70	000 0=0	MC900070
Current Transformer dm=210mm FIR-W-210 MC900210 Current Transformer 70x175mm FIR-WR-175 MC910175 Current Transformer 115x305mm FIR-WR-305 MC910305 Current Transformer 150x350mm FIR-WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 Pouble NO contact, Cage clamp M22-CK20 MM107898 Pouble NC contact, Cage clamp M22-CK02 MM107899	Current Transformer dm=105mm	FIR-W-105	500 0-0	MC900105
Current Transformer 70x175mm FIR-WR-175 MC910175 Current Transformer 115x305mm FIR-WR-305 MC910305 Current Transformer 150x350mm FIR-WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 Pouble NO contact, Cage clamp M22-CK20 MM107898 Pouble NC contact, Cage clamp M22-CK02 MM107899	Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer 115x305mm FIR-WR-305 MC910305 Auxiliary contacts NO contact block, front montage NC contact block, front montage NC contact block, front montage M22-K01 MM216376 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 MM107899	Current Transformer dm=210mm	FIR-W-210	585 0- 6	MC900210
Current Transformer 150x350mm FIR-WR-350 MC910350 Auxiliary contacts M22-K10 MM216376 NC contact block, front montage M22-K01 MM216378 Pouble NO contact, Cage clamp M22-CK20 MM107898 Pouble NC contact, Cage clamp M22-CK02 MM107899	Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Auxiliary contacts NO contact block, front montage NC contact block, front montage NC contact block, front montage M22-K01 MM216376 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 M22-CK02 MM107899	Current Transformer 115x305mm	FIR-WR-305		MC910305
NO contact block, front montage NC contact block, front montage M22-K10 MM216376 MM216378	Current Transformer 150x350mm	FIR-WR-350		MC910350
NC contact block, front montage M22-K01 MM216378 Double NO contact, Cage clamp M22-CK20 MM107898 Double NC contact, Cage clamp M22-CK02 MM107899	Auxiliary contacts			
Double NO contact, Cage clamp M22-CK20 MM107898 Double NC contact, Cage clamp M22-CK02 MM107899	NO contact block, front montage	M22-K10	000 0-0	MM216376
Double NC contact, Cage clamp M22-CK02 MM107899	NC contact block, front montage	M22-K01	585 0-6	MM216378
	Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
NO+NC, Cage clamp M22-CK11 MM107940	Double NC contact, Cage clamp	M22-CK02	555 0- 6	MM107899
	NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





Moulded Case Circuit Breakers MC, plug-in/drive-out









Schrack-Info

• MCCB Type MC, size 1-4, 3 or 4-pole, 16 - 1600A, plug-in / withdrawable

■ MCCB MC Size 1 - 3-pole, 25kA, plug-in

MC120131S

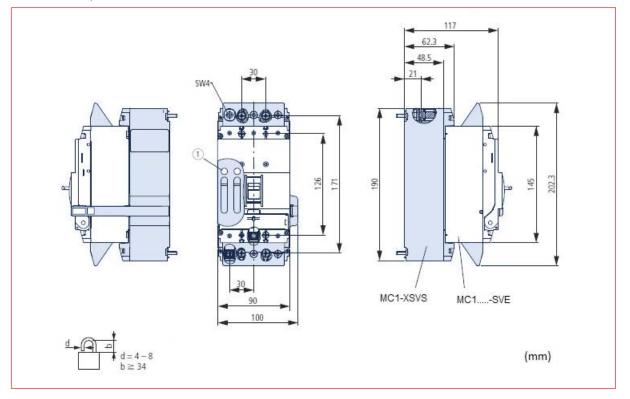
- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 125A

	with thermomagnetic release unit
Rated current I	20 - 125A
Rated voltage U	400VAC
Adjustable overload release I	0.8 - 1 x l ₀
	I 20A, 25A, 32A: fix, 350A
Adjustable short circuit release I	I 40A: 8 - 10 x I
·	ا
Rated short-circuit breaking capacity I / I	
I _{cu} at 240V 50/60Hz	30kA
I _m at 400V 50/60Hz	25kA
I at 690V 50/60Hz	-
I_ at 240V 50/60Hz	30kA
I _g at 400V 50/60Hz	25kA
I at 690V 50/60Hz	-
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

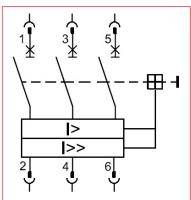


■ MCCB MC Size 1 - 3-pole, 25kA, plug-in

■ MCCB 3-pole MC1..131S dimensions



1) max. 2 padlocks



DESCRIPTION	TYPE NO. AVAILABL	ORDER NO.
20 to 125A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A 3-pole, 25kA, 20A + plug-in	MC1B-A20-SVE	MC120131S
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 25A + plug-in	MC1B-A25-SVE	MC125131S
Moulded Case Circuit Breaker type A, 3-pole 25kA, 32A + plug-in	MC1B-A32-SVE	MC132131S
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 40A + plug-in	MC1B-A40-SVE	MC140131S
Moulded Case Circuit Breaker type A, 3-pole 25kA, 50A + plug-in	MC1B-A50-SVE	MC150131S
Moulded Case Circuit Breaker type A, 3-pole 25kA, 63A + plug-in	MC1B-A63-SVE	MC163131S
Moulded Case Circuit Breaker type A, 3-pole 25kA, 80A + plug-in	MC1B-A80-SVE	MC180131S
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 100A + plug-in	MC1B-A100-SVE	MC110131S
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 125A + plug-in	MC1B-A125-SVE	MC112131S

MCCB MC Size 1 - 3-pole, 50kA, plug-in



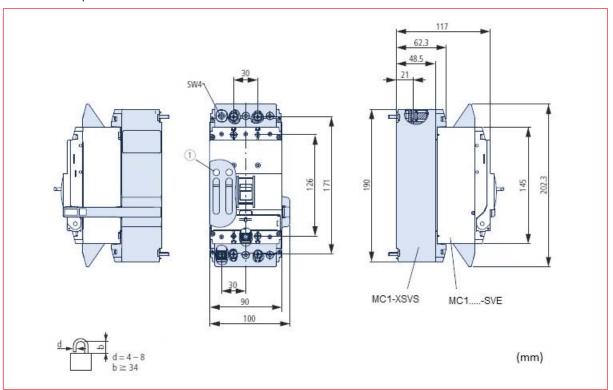
MC120231S

Schrack-Info

- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 20A to 125A

	with thermomagnetic release unit	
Rated current I	20 - 125A	
Rated voltage U	690VAC	
Adjustable overload release I	0.8 - 1 x I	
Adjustable short circuit release I _i	I 20A, 25A, 32A: fix, 350A I 40A: 8 - 10 x I I 63A - 125A: 6 - 10 x I	
Rated short-circuit breaking capacity I / I _ s		
I _a at 240V 50/60Hz	85kA	
I _{ct} at 415V 50/60Hz	50kA	
I _a at 690V 50/60Hz	10kA	
I _g at 240V 50/60Hz	85kA	
I _s at 415V 50/60Hz	50kA	
I at 690V 50/60Hz	7.5kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

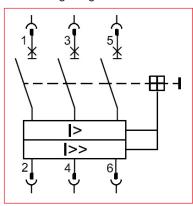
■ MCCB 3-pole MC1..131 S dimensions



1) max. 2 padlocks



■ MCCB MC Size 1 - 3-pole, 50kA, plug-in



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 to 125A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 20A + plug-in	MC1N-A20-SVE		MC120231S
Moulded Case Circuit Breaker type A, 3-pole 50kA, 25A + plug-in	MC1N-A25-SVE		MC125231S
Moulded Case Circuit Breaker type A, 3-pole 50kA, 32A + plug-in	MC1N-A32-SVE		MC132231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 40A + plug-in	MC1N-A40-SVE		MC140231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 50A + plug-in	MC1N-A50-SVE		MC150231S
Moulded Case Circuit Breaker type A 3-pole 50kA, 63A + plug-in	MC1N-A63-SVE		MC163231S
Moulded Case Circuit Breaker type A, 3-pole 50kA, 80A + plug-in	MC1N-A80-SVE		MC180231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 100A + plug-in	MC1N-A100-SVE		MC110231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 125A + plug-in	MC1N-A125-SVE		MC112231 S



MCCB MC Size 1 - Accessories







MC196626











MM216376

MM107899

Schrack-Info

- Auxiliary contacts
- Terminal covers
- Plug-in socket

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket base 3-pole for MC1	MC1-XSVS		MC196777
Door Sealing Frame for MC1	MC1-XBR		MC190195
Toggle Lever Locking Device for MC1	MC1-XKAV		MC190199
Main switch set for MC1 with door interlock, black/grey, MC1	MC1-XHB		MC196626
Early make auxiliary contact, MC1	MC1-XHIVL	000 0-0	MC199432
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable for MC1	MC1-XDV	000 0-0	MC190125
Undervoltage release units, shunt-trips and accessories			
Undervoltage Release 24VAC for MC1, included 3m cable	MC1-XUL24AC		MC199462
Undervoltage Release 208-240VAC for MC1, included 3m cable	MC1-XUL208-240	555 0- 8	MC199471
Undervoltage Release 380-440VAC for MC1, included 3m cable	MC1-XUL380-440		MC199473
Undervoltage Release 24VDC for MC1, included 3m cable	MC1-XUL24DC	000 0-0	MC199481
Undervoltage Release 220-250VDC for MC1, included 3m cable	MC1-XUL220-250		MC199489
Undervoltage Release with 2 early make Contacts, 230VAC, MC1	MC1-XUHIV208-240	000 0- 0	MC199565
Undervoltage Release with 2 early make Contacts, 400VAC, MC1	MC1-XUHIV380-440		MC199567
Time-delay unit for MC1-MC4	MC-UVU	555 0-6	MC190154
Undervoltage Release for time-delay unit, MC1	MC1-XUVL		MC191607
Shunt trip 24V AC/DC with 3m cable for MC1	MC1-XAL24VAC/DC	388 0-8	MC199736
Shunt trip 115V AC/DC with 3m cable for MC1	MC1-XAL110-130		MC199742
Shunt trip 208-250V AC/DC with 3m cable for MC1	MC1-XAL208-250	388 0-8	MC199744
Shunt trip 24V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL24		MC199792
Shunt trip 230V AC/DC with 1 early make auxiliary contact and 3m cable for MC1	MC1-XAHIVL208-250		MC199800
Auxiliary contacts			
NO contact block, front montage	M22-K10	388 0-8	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0- 0-	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	555 6-6	MM107940

■ MCCB MC Size 2 - 3-pole, 25kA, plug-in

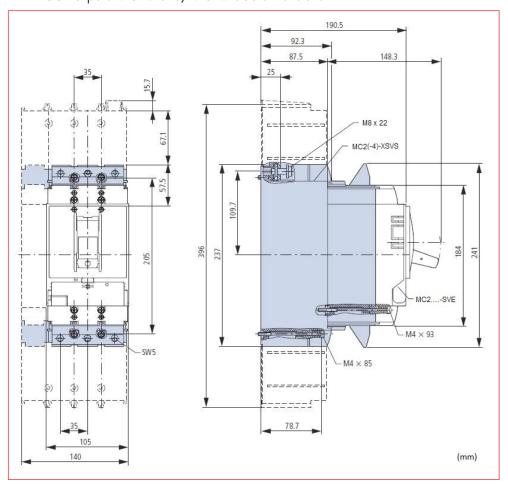


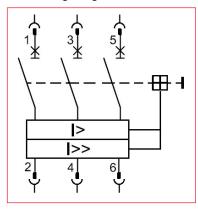
- For System and Line Protection, Motor Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 25kA at 400V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 160A to 250A

	with thermomagnetic release unit	with motor protection	
Rated current I	160 - 250A	160A	
Rated voltage U _g	400VAC	400VAC	
Adjustable overload release I,	0.8 - 1 x l	0.8 - 1 x I	
Adjustable short circuit release I	6 - 10 x I	8 - 14 x I	
Rated short-circuit breaking capacity I / I s			
I _{cu} at 240V 50/60Hz	30kA		
I at 400V 50/60Hz	25kA		
I _{ct} at 690V 50/60Hz	-		
I _g at 240V 50/60Hz	30kA		
I _s at 400V 50/60Hz	25kA	\	
I _a at 690V 50/60Hz			
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

■ MCCB MC Size 2 - 3-pole, 25kA, plug-in

MCCB 3-pole MC2..131S/MC2..136S dimensions





DESCRIPTION	TYPE NO. A'	VAILABLE ORDER NO.
160 to 250A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 160A + plug-in	MC2B-A160-SVE	MC216131S
Moulded Case Circuit Breaker type A, 3-pole, 25kA, 200A + plug-in	MC2B-A200-SVE	MC220131S
Moulded Case Circuit Breaker type A, 3-pole 25kA, 250A + plug-in	MC2B-A250-SVE	MC225131S
160A with motor protection		
Moulded Case Circuit Breaker type M, 3-pole, 25kA, 160A + plug-in	MC2B-M160-SVE	MC216136S



■ MCCB MC Size 2 - 3-pole, 36kA, plug-in



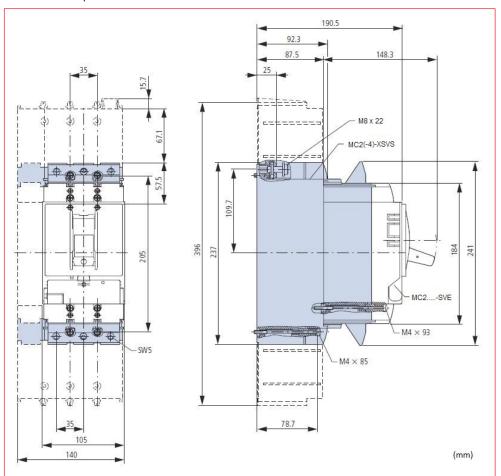
MC216431S

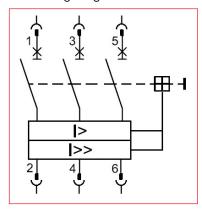
- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Adjustable short circuit release 6 10 x In
- Box terminals standard, screw connections as option
- Switching capacity 36kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 160A to 250A

	with thermomagnetic release unit	
Rated current I	160 - 250A	
Rated voltage U _e	690VAC	
Adjustable overload release I	0.8 - 1 x I	
Adjustable short circuit release I	6 - 10 x l	
Rated short-circuit breaking capacity I cu/I cs		
I _{,,,} at 240V 50/60Hz	55kA	
I at 415V 50/60Hz	36kA	
I at 690V 50/60Hz	8kA	
I _s at 240V 50/60Hz	55kA	
I _s at 415V 50/60Hz	36kA	
I _g at 690V 50/60Hz	4kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 90° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

■ MCCB MC Size 2 - 3-pole, 36kA, plug-in

■ MCCB 3-pole MC2..431S dimensions





DESCRIPTION	TYPE NO. AVAII	LABLE ORDER NO.
160 to 250A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A, 3-pole 36kA, 160A + plug-in	MC2C-A160-SVE	MC216431S
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 200A + plug-in	MC2C-A200-SVE	MC220431S
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 250A + plug-in	MC2C-A250-SVE	MC225431S



■ MCCB MC Size 2 - 3-pole, 50kA, plug-in



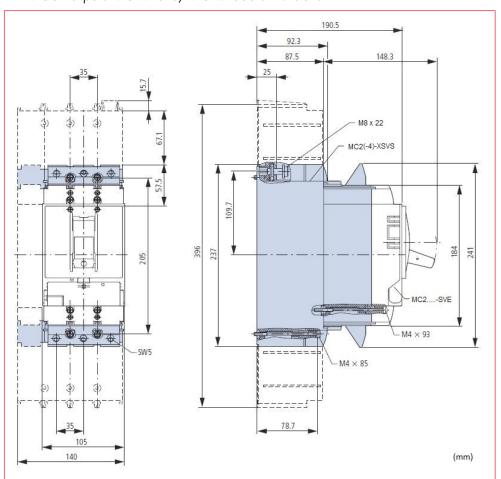
MC216233S

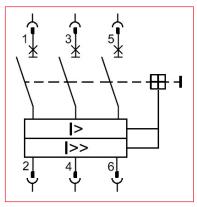
- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 160A to 250A

	with thermomagnetic release unit	with delayed electronic release unit	
Rated current I	160 - 250A	160A	
Rated voltage U	690VAC	690VAC	
Adjustable overload release I	0.8 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I	6 - 10 x I	fix, 12 x I	
Rated short-circuit breaking capacity I / / s			
I _{cu} at 240V 50/60Hz	83	5kA	
I_ at 415V 50/60Hz	50kA		
I at 690V 50/60Hz	20kA		
I at 240V 50/60Hz	85kA		
I _g at 415V 50/60Hz	50)kA	
I_ at 690V 50/60Hz	5kA		
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

■ MCCB MC Size 2 - 3-pole, 50kA, plug-in

■ MCCB 3-pole MC2..231S/MC2..233S dimensions





DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
160 to 250A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 160A + plug-in	MC2N-A160-SVE	MC216231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 200A + plug-in	MC2N-A200-SVE	MC220231S
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 250A + plug-in	MC2N-A250-SVE	MC225231S
160A with delayed electronic release unit		
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 160A + plug-in.	MC2N-VE160-SVE	MC2162335



■ MCCB MC Size 2 - 3-pole, 150kA, plug-in



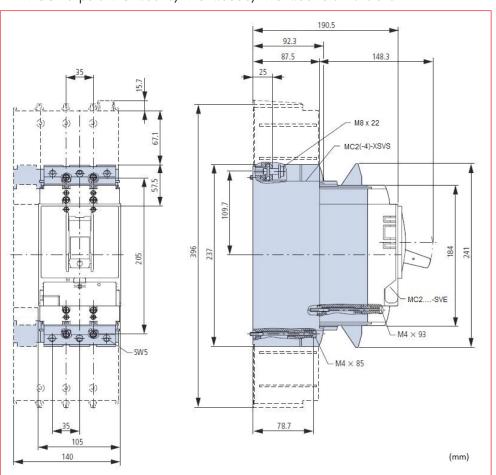
MC214337S

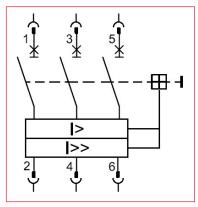
- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 32A to 250A

	with thermomagnetic release unit	with delayed electronic release unit	with electronic motor protection	
Rated current I	32 - 100A	100 - 250A	140A	
Rated voltage U _e	690VAC	690VAC	690VAC	
Adjustable overload release I	0.8 - 1 x I	0.5 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I,	I, to 32A: fix, 350A I, 40A: 8 - 10 x I, I,50A-250A: 6 - 10 x I, I,300A: 2000 - 2500A	fix, 12 x I _n	2 - 14 × I _n	
Rated short-circuit breaking capacity I _{cu} /I _{cs}				
I at 240V 50/60Hz		150kA		
I _m at 415V 50/60Hz	150kA			
I at 690V 50/60Hz		20kA		
I _g at 240V 50/60Hz		150kA		
I _g at 415V 50/60Hz		150kA		
I at 690V 50/60Hz		5kA		
Ambient temperature (operation)	-25°C to +70°C			
Mounting position		vertical and 90° in all directions		
Standards and regulations		IEC/EN 60947-2, VDE 0660		

■ MCCB MC Size 2 - 3-pole, 150kA, plug-in

MCCB 3-pole MC2..331 S/MC2..333 S/MC2..337 S dimensions





DESCRIPTION	TYPE NO.	AVAILABLE ORDER NO.
32 to 100A with thermomagnetic release unit		
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 32A + plug-in	MC2H-A32-SVE	MC232331S
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 50A + plug-in	MC2H-A50-SVE	MC250331S
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 80A + plug-in	MC2H-A80-SVE	MC280331S
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 100A+ plug-in	MC2H-A100-SVE	MC210331S
100 to 250A with delayed electronic release unit		
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 100A + plug-in	MC2H-VE100-SVE	MC210333S
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 160A + plug-in	MC2H-VE160-SVE	MC216333S
Moulded Case Circuit Breaker type A, 3-pole, 150kA, 250A + plug-in	NZMH2-VE250-SVE	MC225333S
140A with electronic motor protection		
Moulded Case Circuit Breaker type ME, 3-pole, 100kA, 140A + plug-in	MC2H-ME140-SVE	MC214337S



■ MCCB MC Size 2 - 4-pole, 50kA, plug-in



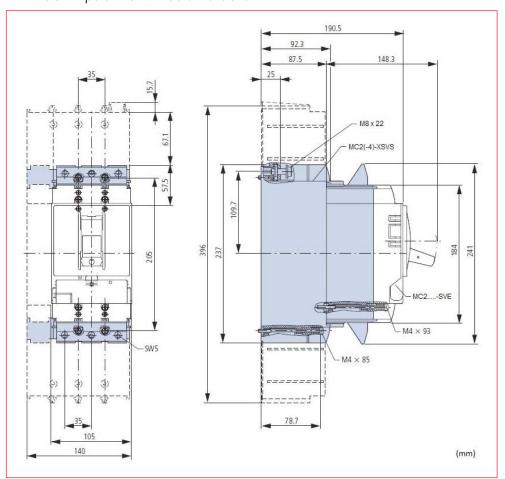
MC210243S

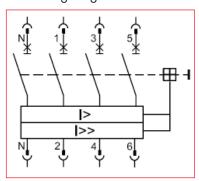
- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Fixed short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 100A to 250A

	with delayed electronic release unit
Rated current I	100 - 250A
Rated voltage U _e	690VAC
Adjustable overload release I	0.5 - 1 x I
Adjustable short circuit release I	fix, 12 x I
Rated short-circuit breaking capacity I Lu/I s	
I _{,,,} at 240V 50/60Hz	85kA
I _m at 415V 50/60Hz	50kA
I _a at 690V 50/60Hz	20kA
I _s at 240V 50/60Hz	85kA
I _s at 415V 50/60Hz	50kA
I at 690V 50/60Hz	5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

■ MCCB MC Size 2 - 4-pole, 50kA, plug-in

■ MCCB 4-pole MC2..243S dimensions





DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
100 to 250A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 100A + plug-in	MC2N-4-VE100-SVE	000 0-0	MC210243S
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 160A + plug-in	MC2N-4-VE160-SVE	555 0- 0	MC216243S
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 250A + plug-in	MC2N-4-VE250-SVE	355 0-0	MC225243S



■ MCCB MC Size 2 - 4-pole, 150kA, plug-in



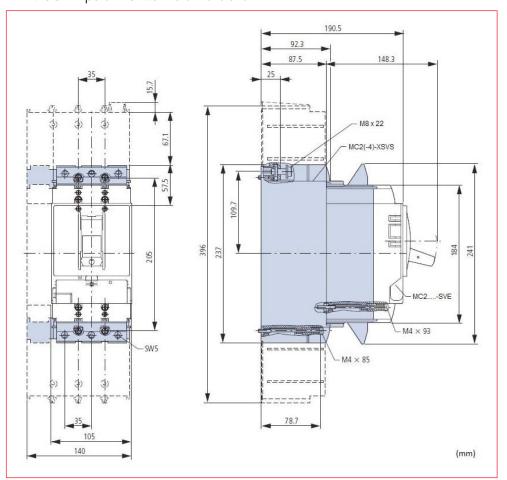
MC210341S

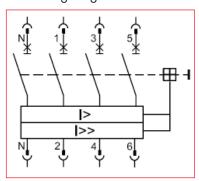
- For System and Line Protection
- Adjustable overload release 0.8 1 x In
- Fixed or adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 32A to 100A

	with thermomagnetic release unit
Rated current I	32 - 100A
Rated voltage U	690VAC
Adjustable overload release I	0.8 - 1 x l
Adjustable short circuit release I	I 32A: fix, 350A I 40A: 8 - 10 x I I 50-100A: 6 - 10 x I
Rated short-circuit breaking capacity l _{cu} /l _{cs}	
I _{cu} at 240V 50/60Hz	150kA
I at 415V 50/60Hz	150kA
I _{cu} at 690V 50/60Hz	20kA
I _s at 240V 50/60Hz	150kA
I _s at 415V 50/60Hz	150kA
I_ at 690V 50/60Hz	5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-2, VDE 0660

■ MCCB MC Size 2 - 4-pole, 150kA, plug-in

■ MCCB 4-pole MC2..341S dimensions





DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
32 to 100A with thermomagnetic release unit			
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 32A + plug-in	MC2H-4-A32-SVE	000 0-0	MC2323415
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 50A + plug-in	MC2H-4-A50-SVE	999 0- 8	MC250341S
Moulded Case Circuit Breaker type A, 4-pole, 150kA, 100A + plug-in	MC2H-4-A100		MC210341S



■ MCCB MC Size 2, plug-in - Accessories









MC299499



MC299754



MC290127









MM216376

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle
- Terminal covers
- Remote operator
- Plug-in socket

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket 3-pole for MC2	MC2-XSVS	000 0-0	MC296699
Socket 4-pole for MC2	MC2-4-XSVS		MC296700
Toggle Lever Locking Device for MC2	MC2/3-XKAV	000 0-0	MC290201
Main switch set with door interlock, black/grey, MC2	MC2-XHB		MC296627
Main switch set with door interlock, red/yellow, MC2	MC2-XHBR		MC296633
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable for MC2	MC2-XDV	000 0-0	MC290127
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	585 0-6	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	988 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	888 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	080 0=0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Remote Operator 24-30V DC for MC2 can be synchronised and interlocked	MC2-XR240DC	588 6-6	MC299836
Remote Operator 24-30V DC for MC2 can not be synchronised and interlocked	MC2-XRD240DC	000 0-0	MC299837



■ MCCB MC Size 2, plug-in - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Remote Operator 48-60V DC for MC2 can be synchronised and interlocked	MC2-XR48-60DC	000 0-0	MC299838
Remote Operator 208-240V AC for MC2 can be synchronised and interlocked	MC2-XR208-240AC	000 0-0	MC299832
Remote Operator 208-240V AC for MC2 can not be synchronised and interlocked	MC2-XRD208-240A	000 0-0	MC299833
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-0,3	000 0- 0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	300 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	000 0=0	MC900035
Current Transformer dm=70mm	FIR-W-70	555 0- 5	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	000 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	388 0-8	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0- 0-	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0- 0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0- 0-	MM107940



■ MCCB MC Size 3 - 3-pole, 50kA, withdrawable

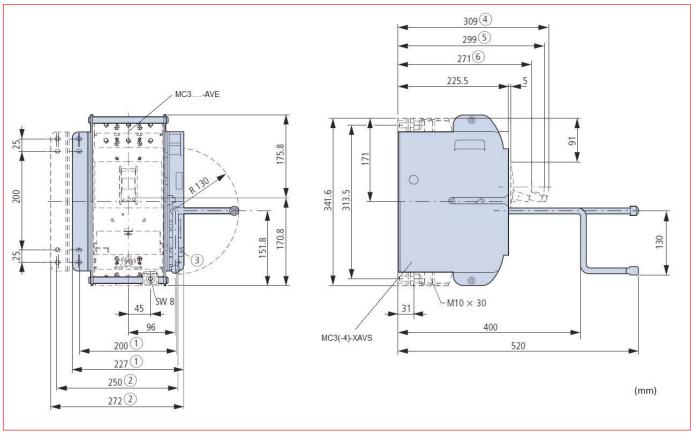


Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.8 1 x In (0.5 1 x In)
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 220A to 630A

	with thermomagnetic release unit	with electronic release unit	with delayed electronic release unit	with electronic motor protection	
Rated current I	400 - 500A	400 - 630A	400 - 630A	220 - 350A	
Rated voltage U _e	690VAC	690VAC	690VAC	690VAC	
Adjustable overload release I	0.8 - 1 x l	0.5 - 1 x l	0.5 - 1 x I	0.5 - 1 x I	
Adjustable short circuit release I	6 - 10 x I _n	I 400A: 2 - 11 x I I 630A: 2 - 8 x I	l 400A: 2 - 11 x l 1 630A: 2 - 8 x l 1	2 - 14 x I	
Rated short-circuit breaking capacity I _{cu} /I _{cs}					
I at 240V 50/60Hz		851	κA		
I at 415V 50/60Hz		50	cA		
I _{,,,} at 690V 50/60Hz		201	κ A		
I at 240V 50/60Hz		851	κA		
I _s at 415V 50/60Hz		501	cA		
I _g at 690V 50/60Hz	5kA				
Ambient temperature (operation)	-25°C to +70°C				
Mounting position	vertical and 90° in all directions				
Standards and regulations	IEC/EN 60947-2, VDE 0660				

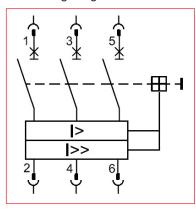
MCCB 3-pole MC3..231A/MC3..232A/MC3..233A/MC3..237A dimensions



- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ MCCB MC Size 3 - 3-pole, 50kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 500A with thermomagnetic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 400A + withdrawable module	MC3N-AE400-AVE		MC340231A
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 500A	MC3N-A500-AVE		MC350231A
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 400A + withdrawable module	MC3N-AE400-AVE		MC340232A
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 630A + withdrawable module	MC3N-AE630-AVE	000 0-0	MC363232A
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 400A + withdrawable module	MC3N-VE400-AVE		MC340233A
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 630A + withdrawable module	MC3N-VE630-AVE	000	MC363233A
220 to 350A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 220A + withdrawable module	MC3N-ME220-AVE		MC322237A
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 350A + withdrawable module	MC3N-ME350-AVE		MC335237A



MCCB MC Size 3 - 3-pole, 150kA, withdrawable

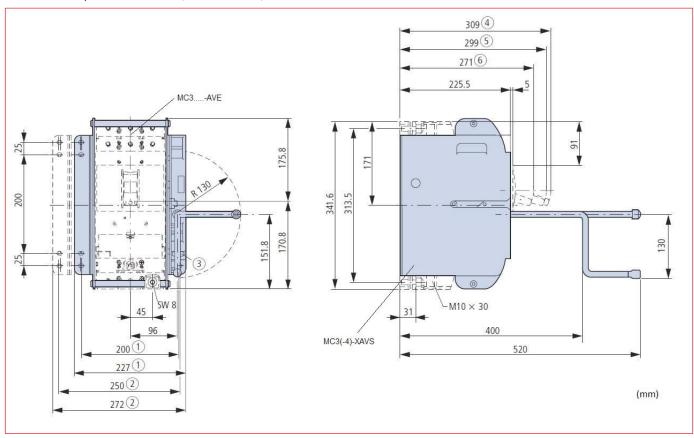


Schrack-Info

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 220A to 630A

	with electronic release unit	with delayed electronic release unit	with electronic motor protection		
Rated current I	400 - 630A	400 - 630A	220 - 350A		
Rated voltage U	690VAC	690VAC	690VAC		
Adjustable overload release I	0.5 - 1 x I	0.5 - 1 x l	0.5 - 1 x I		
Adjustable short circuit release I,	I 400A: 2 - 11 x I 630A: 2 - 8 x I	I 400A: 2 - 11 x I	2 - 14 x I _n		
Rated short-circuit breaking capacity I _{cu} /I _{cs}					
I _a at 240V 50/60Hz		150kA			
I at 415V 50/60Hz		150kA			
I _{al} at 690V 50/60Hz		35kA			
I _s at 240V 50/60Hz		150kA			
I _s at 415V 50/60Hz		150kA			
I at 690V 50/60Hz		9kA			
Ambient temperature (operation)		-25°C to +70°C			
Mounting position		vertical and 90° in all directions			
Standards and regulations	IEC/EN 60947-2, VDE 0660				

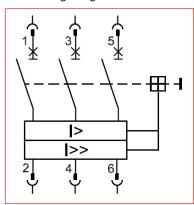
MCCB 3-pole MC3..332A/MC3..333A/MC3..337A dimensions



- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ MCCB MC Size 3 - 3-pole, 150kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 150kA, 400A + withdrawable module	MC3H-AE400-AVE		MC340332A
Moulded Case Circuit Breaker type AE, 3-pole, 150kA, 630A + withdrawable module	MC3H-AE630-AVE		MC363332A
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 400A + withdrawable module	MC3H-VE400-AVE		MC340333A
Moulded Case Circuit Breaker type VE, 3-pole, 150kA, 630A + withdrawable module	MC3H-VE630-AVE		MC363333A
220 to 350A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 220A + withdrawable module	MC3H-ME220-AVE		MC322337A
Moulded Case Circuit Breaker type ME, 3-pole, 150kA, 350A + withdrawable module	MC3H-ME350-AVE		MC335337A



MCCB MC Size 3 - 4-pole, 50kA, withdrawable

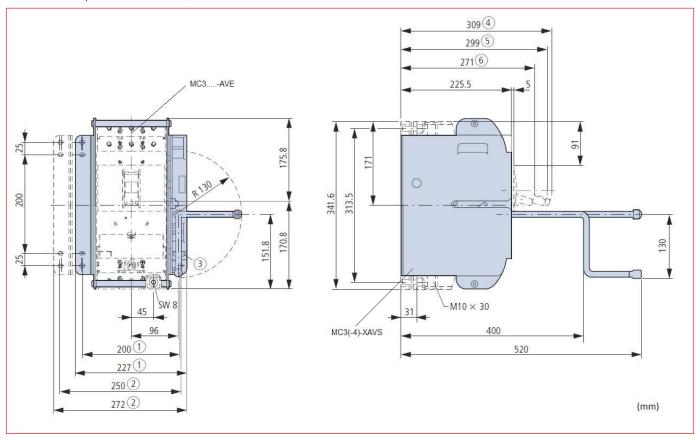


Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 400A to 630A

	with electronic release unit	with delayed electronic release unit	
Rated current I	400 - 630A	400 - 630A	
Rated voltage U	690VAC	690VAC	
Adjustable overload release I	0.5 - 1 x I	0.5 - 1 x l	
Adjustable short circuit release I	I 400A: 2 - 11 x I I 630A: 2 - 8 x I	l 400A: 2 - 11 x l l 630A: 2 - 8 x l	
Rated short-circuit breaking capacity I / I s			
I _{cu} at 240V 50/60Hz		85kA	
I _{at} at 415V 50/60Hz	50kA		
I _{cu} at 690V 50/60Hz		20kA	
I _g at 240V 50/60Hz		85kA	
I _g at 415V 50/60Hz		50kA	
I at 690V 50/60Hz		5kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 9	0° in all directions	
Standards and regulations	IEC/EN 609	947-2, VDE 0660	

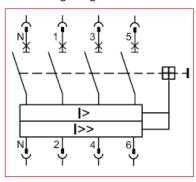
MCCB 4-pole MC3..242A/MC3..243A dimensions



- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ MCCB MC Size 3 - 4-pole, 50kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 400A + withdrawable module	MC3N-4-AE400-AVE		MC340242A
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 630A + withdrawable module	MC3N-4-AE630-AVE		MC363242A
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 400A + withdrawable module	MC3N-4-VE400-AVE		MC340243A
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 630A + withdrawable module	MC3N-4-VE630-AVE		MC363243A



MCCB MC Size 3 - 4-pole, 150kA, withdrawable

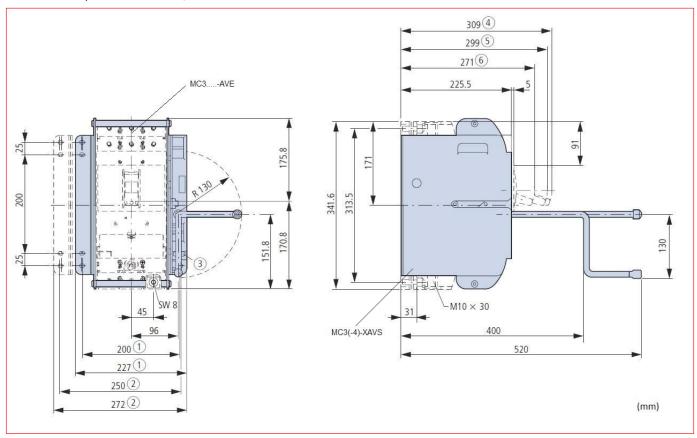


Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release
- Box terminals standard, screw connections as option
- Switching capacity 150kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 400A to 630A

	with electronic release unit	with delayed electronic release unit
Rated current I	400 - 630A	400 - 630A
Rated voltage U	690VAC	690VAC
Adjustable overload release I	0.5 - 1 x l	0.5 - 1 x l
Adjustable short circuit release I	I 400A: 2 - 11 x I I 630A: 2 - 8 x I	l 400A: 2 - 11 x l l 630A: 2 - 8 x l
Rated short-circuit breaking capacity I / I s		
I _{cu} at 240V 50/60Hz	1	150kA
I _{at} at 415V 50/60Hz	1	50kA
I _{cu} at 690V 50/60Hz		35kA
I at 240V 50/60Hz	1	150kA
I _g at 415V 50/60Hz	1	50kA
I _g at 690V 50/60Hz		9kA
Ambient temperature (operation)	-25°C	C to +70°C
Mounting position	vertical and 9	0° in all directions
Standards and regulations	IEC/EN 609	947-2, VDE 0660

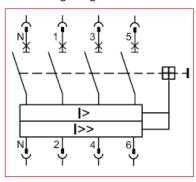
■ MCCB 4-pole MC3..342A/MC3..343A dimensions



- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ MCCB MC Size 3 - 4-pole, 150kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 to 630A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 150kA, 400A + withdrawable module	MC3H-4-AE400-A	/E	MC340342A
Moulded Case Circuit Breaker type AE, 4-pole, 150kA, 630A + withdrawable module	MC3H-4-AE630-A	/E	MC363342A
400 to 630A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 400A + withdrawable module	MC3H-4-VE400-A\	/E	MC340343A
Moulded Case Circuit Breaker type VE, 4-pole, 150kA, 630A + withdrawable module	MC3H-4-VE630-A\	/E	MC363343A



■ MCCB MC Size 3, withdrawable - Accessories



MC396711



MC399850



MC299499



MC299754



MC390129







MM216378

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle, drive-out socket
- Terminal covers
- Residual current release
- Remote operator

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket Base 3-pole, MC3	MC3-XAVS	650 0-0	MC396711
Socket Base 4-pole, MC3	MC3-4-XAVS		MC396712
Spacer, MC3	MC3-XAB	000 0-0	MC390211
Door Sealing Frame for MC3	MC3-XBR		MC394645
Main switch set with door interlock, black/grey, MC3	MC3-XHB		MC396628
Main switch set with door interlock, red/yellow, MC3	MC3-XHBR		MC396634
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable, black/grey for MC3	MC3-XDV	000 0-0	MC390129
Rotary Handle complete, lockable, red/yellow for MC3	MC3-XDVR	000 0-0	MC390140
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	300 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	300 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	355 0-6	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3 $$	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	300 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818



■ MCCB MC Size 3, withdrawable - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Mechanical Interlock for Remote Operator for MC3	MC3-XMVR	555 0-0	MC394545
Remote Operator 24-30V DC for MC3 can be synchronised and interlocked	MC3-XR240DC	999 6-8	MC399854
Remote Operator 48-60V DC for MC3 can be synchronised and interlocked	MC3-XR48-60DC		MC399856
Remote Operator 208-240V AC for MC3 can be synchronised and interlocked	MC3-XR208-240AC	000 0-0	MC399850
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	333 0- 6	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	333 0- 6	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	000 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





■ MCCB MC Size 4 - 3-pole, 50kA, withdrawable

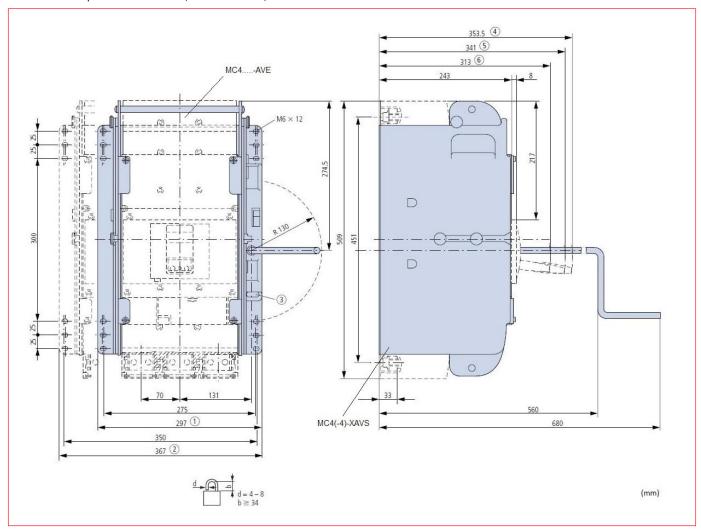


MC412232A

- For System and Line Protection, Motor Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In (2 14 x In)
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 630A to 1600A

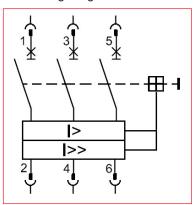
	with electronic release unit	with delayed electronic release unit	with electronic motor protection		
Rated current I	630 - 1600A	630 - 1600A	1400A		
Rated voltage U _e	690VAC	690VAC	690VAC		
Adjustable overload release I _r	0.5 - 1 x I	0.5 - 1 x l	0.5 - 1 x l		
Adjustable short circuit release I	2 - 12 x I	2 - 12 x I	2 - 14 x I		
Rated short-circuit breaking capacity /			*		
I _{ct} at 240V 50/60Hz		50kA			
I _{cu} at 415V 50/60Hz		50kA			
I _a at 690V 50/60Hz		20kA			
I _g at 240V 50/60Hz		37kA			
I _s at 415V 50/60Hz		37kA			
I at 690V 50/60Hz	15kA				
Ambient temperature (operation)	-25°C to +70°C				
Mounting position	vertical and 90° in all directions				
Standards and regulations	IEC/EN 60947-2, VDE 0660				

- MCCB MC Size 4 3-pole, 50kA, withdrawable
- MCCB 3-pole MC4..232A/MC4..233A/MC4..237A dimensions



- 1) 3-pole 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted

■ MCCB MC Size 4 - 3-pole, 50kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
630 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 630A + withdrawable module	MC4N-AE630-AVE		MC463232A
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 800A + withdrawable module	MC4N-AE800-AVE	000 0-0	MC480232A
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1000A + withdrawable module	MC4N-AE1000-AVE		MC410232A
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1250A + withdrawable module	MC4N-AE1250-AVE		MC412232A
Moulded Case Circuit Breaker type AE, 3-pole, 50kA, 1600A + withdrawable module	MC4N-AE1600-AVE	000 0-0	MC416232A
630 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 630A + withdrawable module	MC4N-VE630-AVE		MC463233A
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 800A + withdrawable module	MC4N-VE800-AVE		MC480233A
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1000A + withdrawable module	MC4N-VE1000-AVE	000 0-0	MC410233A
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1250A + withdrawable module	MC4N-VE1250-AVE		MC412233A
Moulded Case Circuit Breaker type VE, 3-pole, 50kA, 1600A + withdrawable module	MC4N-VE1600-AVE	000 0-0	MC416233A
1400A with electronic motor protection			
Moulded Case Circuit Breaker type ME, 3-pole, 50kA, 1400A	MC4N-ME1400-AVE		MC414237A



■ MCCB MC Size 4 - 3-pole, 85kA, withdrawable

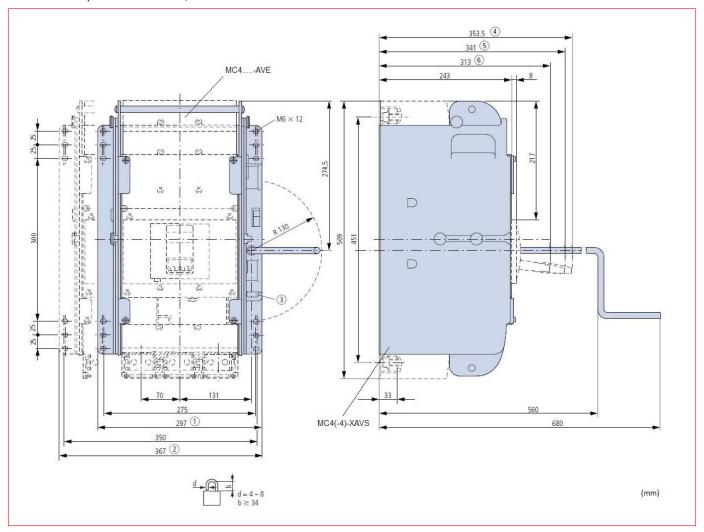


- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In
- Box terminals standard, screw connections as option
- Switching capacity 85kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 630A to 1600A

	with electronic release unit	with delayed electronic release unit	
Rated current I	630 - 1600A	630- 1600A	
Rated voltage U _e	690VAC	690VAC	
Adjustable overload release I	0.5 - 1 x l	0.5 - 1 x l	
Adjustable short circuit release I	2 - 12 x I	2 - 12 x I	
Rated short-circuit breaking capacity I / / S		·	
I _{cu} at 240V 50/60Hz	1	25kA	
I _m at 415V 50/60Hz	85kA		
I _a at 690V 50/60Hz	50kA		
I _g at 240V 50/60Hz		63kA	
I _g at 415V 50/60Hz	4	13kA	
I at 690V 50/60Hz		37kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 90° in all directions		
Standards and regulations	IEC/EN 609	247-2, VDE 0660	

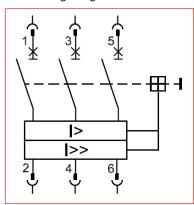


- MCCB MC Size 4 3-pole, 85kA, withdrawable
- MCCB 3-pole MC4..332A/MC4..333A dimensions



- 1) 3-pole 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted

■ MCCB MC Size 4 - 3-pole, 85kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
630 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 630A + withdrawable module	MC4H-AE630-AVE		MC463332A
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 800A + withdrawable module	MC4H-AE800-AVE		MC480332A
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1000A + withdrawable module	MC4H-AE1000-AVE		MC410332A
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1250A + withdrawable module	MC4H-AE1250-AVE		MC412332A
Moulded Case Circuit Breaker type AE, 3-pole, 85kA, 1600A + withdrawable module	MC4H-AE1600-AVE		MC416332A
630 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 630A + withdrawable module	MC4H-VE630-AVE		MC463333A
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 800A + withdrawable module	MC4H-VE800-AVE		MC480333A
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1000A + withdrawable module	MC4H-VE1000-AVE		MC410333A
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1250A + withdrawable module	MC4H-VE1250-AVE		MC412333A
Moulded Case Circuit Breaker type VE, 3-pole, 85kA, 1600A + withdrawable module	MC4H-VE1600-AVE		MC416333A



■ MCCB MC Size 4 - 4-pole, 50kA, withdrawable

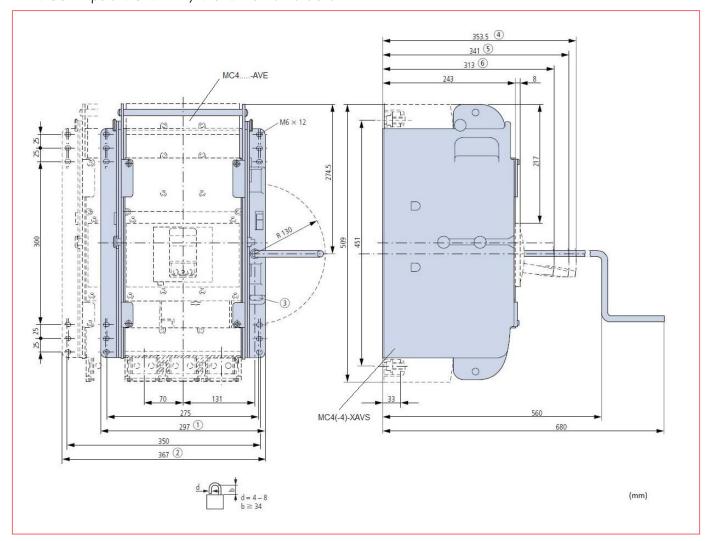


MC463332A

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In
- Box terminals standard, screw connections as option
- Switching capacity 50kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 800A to 1600A

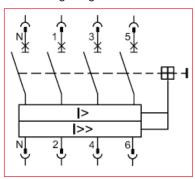
	with electronic release unit	with delayed electronic release unit
Rated current I	800 - 1600A	800 - 1600A
Rated voltage U _a	690VAC	690VAC
Adjustable overload release I	0.5 - 1 x l	0.5 - 1 x l
Adjustable short circuit release I	2 - 12 x l	2 - 12 x l
Rated short-circuit breaking capacity I / I		
I at 240V 50/60Hz		50kA
I _m at 415V 50/60Hz		50kA
I at 690V 50/60Hz		20kA
I at 240V 50/60Hz		37kA
I _g at 415V 50/60Hz	;	37kA
I at 690V 50/60Hz		15kA
Ambient temperature (operation)	-25°C	C to +70°C
Mounting position	vertical and 9	0° in all directions
Standards and regulations	IEC/EN 609	947-2, VDE 0660

- MCCB MC Size 4 4-pole, 50kA, withdrawable
- MCCB 4-pole MC4..242A/MC4..243A dimensions



- 1) 3-pole 2) 4-pole 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted

■ MCCB MC Size 4 - 4-pole, 50kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 800A + withdrawable module	MC4N-4-AE800-AVE		MC480242A
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1000A + withdrawable module	MC4N-4-AE1000-AV	Έ	MC410242A
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1250A + withdrawable module	MC4N-4-AE1250-AV	E	MC412242A
Moulded Case Circuit Breaker type AE, 4-pole, 50kA, 1600A + withdrawable module	MC4N-4-AE1600-AV	E	MC416242A
630 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 800A + withdrawable module	MC4N-4-VE800-AVE		MC480243A
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1000A + withdrawable module	MC4N-4-VE1000-AV	E	MC410243A
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1250A + withdrawable module	MC4N-4-VE1250-AV	E	MC412243A
Moulded Case Circuit Breaker type VE, 4-pole, 50kA, 1600A + withdrawable module	MC4N-4-VE1600-AV	E	MC416243A



■ MCCB MC Size 4 - 4-pole, 85kA, withdrawable

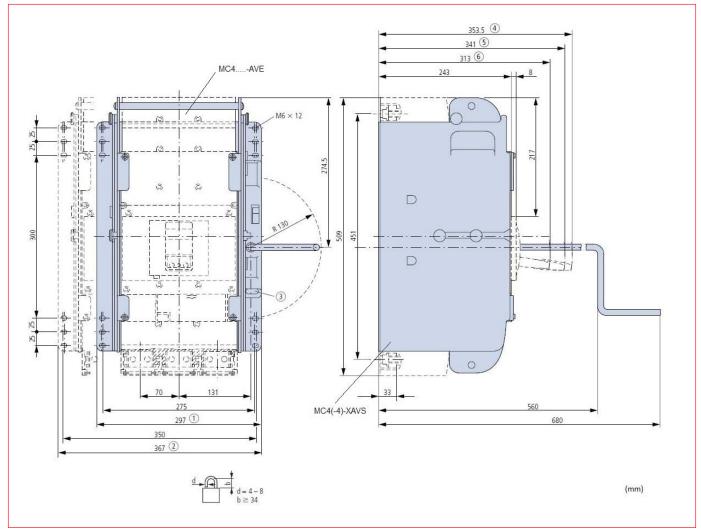


Schrack-Info

- For System and Line Protection, Selective and Generator Protection
- Adjustable overload release 0.5 1 x In
- Adjustable short circuit release 2 12 x In
- Box terminals standard, screw connections as option
- Switching capacity 85kA at 415V 50/60Hz
- According IEC/EN 60947-2
- Rated continuous current = rated current 800A to 1600A

	with electronic release unit	with delayed electronic release unit
Rated current I	800 - 1600A	800 - 1600A
Rated voltage U	690VAC	690VAC
Adjustable overload release I	0.5 - 1 x I	0.5 - 1 x l
Adjustable short circuit release I	2 - 12 x l	2 - 12 x l
Rated short-circuit breaking capacity I U		
I _a at 240V 50/60Hz	1	25kA
I _m at 415V 50/60Hz	8	35kA
I _a at 690V 50/60Hz		50kA
I at 240V 50/60Hz		63kA
I _g at 415V 50/60Hz	4	13kA
I at 690V 50/60Hz		37kA
Ambient temperature (operation)	-25°C	to +70°C
Mounting position	vertical and 9	0° in all directions
Standards and regulations	IEC/EN 609	247-2, VDE 0660

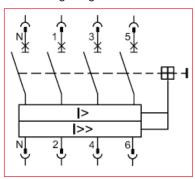
MCCB 4-pole MC4..342A/MC4..343A dimensions



- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ MCCB MC Size 4 - 4-pole, 85kA, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 to 1600A with electronic release unit			
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 800A + withdrawable module	MC4H-4-AE800-AVE		MC480342A
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1000A + withdrawable module	MC4H-4-AE1000-AV	Έ	MC410342A
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1250A + withdrawable module	MC4H-4-AE1250-AV	E	MC412342A
Moulded Case Circuit Breaker type AE, 4-pole, 85kA, 1600A + withdrawable module	MC4H-4-AE1600-AV	Έ	MC416342A
800 to 1600A with delayed electronic release unit			
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 800A + withdrawable module	MC4H-4-VE800-AVE		MC480343A
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1000A + withdrawable module	MC4H-4-VE1000-AV	E	MC410343A
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1250A + withdrawable module	MC4H-4-VE1250-AV	E	MC412343A
Moulded Case Circuit Breaker type VE, 4-pole, 85kA, 1600A + withdrawable module	MC4H-4-VE1600-AV	E	MC416343A



■ MCCB MC Size 4, withdrawable - Accessories



MC496714



MC496685



MC496451



MC496193



MC496608





MC910175



MM216378

- Auxiliary contacts
- Door coupling rotary handles
- Rotary handle
- Terminal covers
- Residual current release
- Remote operator
- Drive-out socket

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket Base 3-pole, MC4	MC4-XAVS	000 0-0	MC496713
Socket Base 4-pole, MC4	MC4-4-XAVS		MC496714
Main switch set for MC4	MC4-XHB		MC491779
Main switch set for MC4 with door interlock, Emergency-Stop, red/yellow, for MC4	MC4-XHBR		MC491842
Early-Make auxiliary contact, MC4	MC4-XHIV		MC496172
Door Sealing Frame for MC4	MC4-XBR		MC494646
Rotary handles, door coupling handles, accessories			
Rotary handle direct, lockable, black/grey	MC4-XDV	000 0-0	MC496608
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage Release 24VAC for MC4	MC4-XU24AC	000 0-0	MC496189
Undervoltage Release 110-130VAC for MC4	MC4-XU110-130AC		MC496192
Undervoltage Release 208-240VAC for MC4	MC4-XU208-240AC	000 0-0	MC496193
Undervoltage Release 380-440VAC for MC4	MC4-XU380-440AC		MC496194
Undervoltage Release 24VDC for MC4	MC4-XU24DC	000 0-0	MC496204
Undervoltage Release 220-250VDC for MC4	MC4-XU220-250DC		MC496208
Undervoltage Release with 2 early make contacts, 230VAC, MC4	MC4-XUHIV208-240		MC496221
Undervoltage Release with 2 early make contacts, 400VAC, MC4	MC4-XUHIV380-440		MC496222
Undervoltage release for time-delay unit, for MC4	MC4-XUV		MC496588
Shunt trip 24 VAC/DC for MC4	MC4-XA24AC/DC	000 0-0	MC496447
Shunt trip 110-130V AC/DC for MC4	MC4-XA110-130AC/DC		MC496450
Shunt trip 208-250V AC/DC for MC4	MC4-XA208-250AC/DC	000 0=0	MC496451
Shunt trip with early make contact 24VAC/DC for MC4	MC4-XAVHI24AC/DC		MC496471



■ MCCB MC Size 4, withdrawable - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Shunt trip with early make contact 230VAC/DC for MC4	MC4-XAVHI230AC/DC		MC496475
Remote Operator 24-30V DC for MC4, can be synchronised and interlocked	MC4-XR240DC	000 0-0	MC496686
Remote Operator 48-60V DC for MC4, can be synchronised and interlocked	MC4-XR48-60DC	000 0-0	MC496687
Remote Operator 208-240V AC for MC4, can be synchronised and interlocked	MC4-XR208-240AC	355 0- 0	MC496685
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	555 0- 5	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	333 0- 8	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	555 0- 8	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	333 0- 8	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0=0	MC900140
Current Transformer dm=210mm	FIR-W-210	555 0- 0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	- 000 O- 0-	MM216376
NC contact block, front montage	M22-K01	000 O- 0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	333 6- 8	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





Load Switches MC, plug-in/drive-out









Schrack-Info

• Load break switches type MC, size 2-4, 3 or 4-pole, 160 - 1600A, plug-in / withdrawable

Load Switches MC Size 2 - 4-pole, plug-in



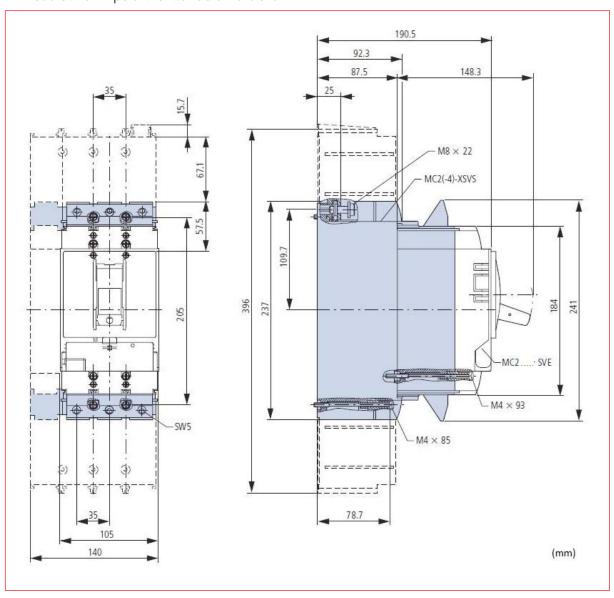
MC216045S

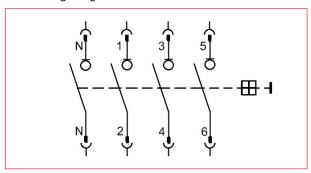
- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 5,5kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 160A

	without thermomagnetic release unit
Rated current I	160A
Rated voltage U	440VAC
Rated short-circuit making capacity	
I _m at 415V 50/60Hz	5.5kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

■ Load Switches MC Size 2 - 4-pole, plug-in

Load Switch 4-pole MC2..045S dimensions





DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160A Load Switch, plug-in			
Switch Disconnector, 4-pole, 160A for remote operation + plug-in	MC2-N-4-160-SVE		MC216045S



Load Switches MC Size 2 - Accessories



MC296699



MC299832



MC299499



MC299754



MC290127



MC900003



MC900105



MM216376

- Auxiliary contacts
- Door couplings
- Rotary handles
- Terminal covers
- Remote operator
- Plug in sockets

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket 3-pole for MC2	MC2-XSVS	000 0-0	MC296699
Socket 4-pole for MC2	MC2-4-XSVS		MC296700
Toggle Lever Locking Device for MC2	MC2/3-XKAV	000 0-0	MC290201
Clip Plate 75mm for MC2	MC2-XC75		MC290215
Main switch set with door interlock, black/grey, MC2	MC2-XHB		MC296627
Main switch set with door interlock, red/yellow, MC2	MC2-XHBR		MC296633
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable for MC2	MC2-XDV	000 0-0	MC290127
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	000 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3	MC2/3-XUHIV208	000 0-0	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for MC2/3 $$	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	000 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818
Remote Operator 24-30V DC for MC2 can be synchronised and interlocked	MC2-XR240DC	000 0-0	MC299836

■ Load Switches MC Size 2 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Remote Operator 24-30V DC for MC2 can not be synchronised and interlocked	MC2-XRD240DC	555 0-8	MC299837
Remote Operator 48-60V DC for MC2 can be synchronised and interlocked	MC2-XR48-60DC	988 0-6	MC299838
Remote Operator 208-240V AC for MC2 can be synchronised and interlocked	MC2-XR208-240AC	000 0-0	MC299832
Remote Operator 208-240V AC for MC2 can not be synchronised and interlocked	MC2-XRD208-240A	000 0-0	MC299833
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-0,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	999 0- 0-	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	588 0-8	MC900210
Current Transformer 70x175mm	FIR-WR-175	585 0-6	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000 0-0	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0=0	MM107940



■ Load Switches MC Size 3 - 3-pole, withdrawable



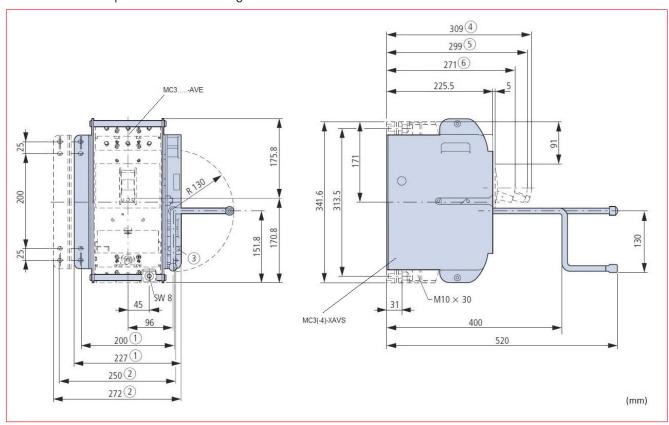
MC340035A

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 25kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 400A to 630A

	without thermomagnetic release unit
Rated current I	400 - 630A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	25kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

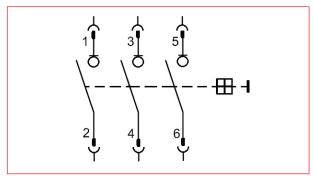
■ Load Switch 3-pole MC3..035A diagram



- 1) 3-pole 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ Load Switches MC Size 3 - 3-pole, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 - 630A Load Switches, withdrawable			
Switch Disconnector, 3-pole, 400A for remote operation + withdrawable module	MC3-N-400-AVE	000 0-0	MC340035A
Switch Disconnector, 3-pole, 630A for remote operation + withdrawable module	MC3-N-630-AVE		MC363035A



■ Load Switches MC Size 3 - 4-pole, withdrawable



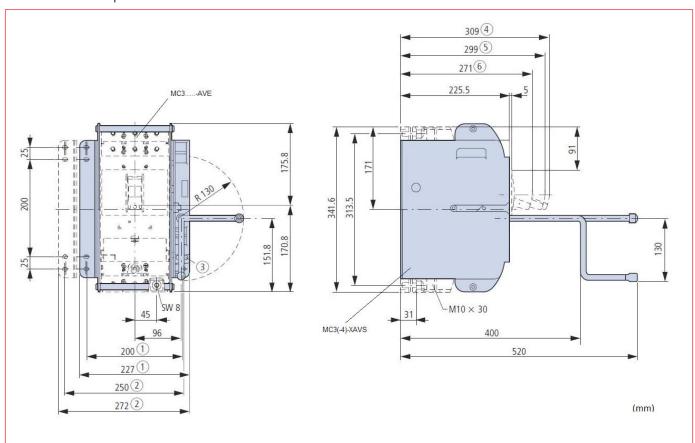
MC340045A

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections, box-terminals as option
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 25kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 400A to 630A

	without thermomagnetic release unit
Rated current I	400 - 630A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	25kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

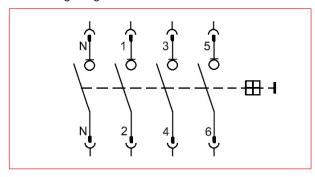
■ Load Switch 4-pole MC3..045A dimensions



- 1) 3-pole
- 2) 4-pole 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



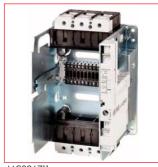
■ Load Switches MC Size 3 - 4-pole, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400 - 630A Load Switches, withdrawable			
Switch Disconnector, 4-pole, 400A for remote operation + withdrawable module	MC3-N-4-400-AVE		MC340045A
Switch Disconnector, 4-pole, 630A for remote operation + withdrawable module	MC3-N-4-630-AVE		MC363045A



■ Load Switches MC Size 3 - Accessories



MC396711



MC399850



MC299499





MC390129



MC900105

MM216378

- Auxiliary contacts
- Door couplings
- Rotary handles and plug in sockets
- Terminal covers
- Residual current release
- Remote operator

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket Base 3-pole, MC3	MC3-XAVS	000 0-0	MC396711
Socket Base 4-pole, MC3	MC3-4-XAVS		MC396712
Spacer, MC3	MC3-XAB	000 0-0	MC390211
Door Sealing Frame for MC3	MC3-XBR		MC394645
Main switch set with door interlock, black/grey, MC3	MC3-XHB		MC396628
Main switch set with door interlock, red/yellow, MC3	MC3-XHBR		MC396634
Rotary handles, door coupling handles, accessories			
Rotary Handle complete, lockable, black/grey for MC3	MC3-XDV	000 0-0	MC390129
Rotary Handle complete, lockable, red/yellow for MC3	MC3-XDVR	000 0-0	MC390140
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage release 24V AC for MC2/3	MC2/3-XU24AC	000 0-0	MC299491
Undervoltage release 208-240V AC for MC2/3	MC2/3-XU208-240	000 0-0	MC299499
Undervoltage release 380-440V AC for MC2/3	MC2/3-XU380-440	000 0-0	MC299501
Undervoltage release 24V DC for MC2/3	MC2/3-XU24DC	300 0-0	MC299509
Undervoltage release of time-delay unit for MC2/3	MC2-XUV	000 0-0	MC299527
Undervoltage release 230V AC with 2 early make auxiliary contacts for MC2/3 $$	MC2/3-XUHIV208	388 6-8	MC299591
Undervoltage release 400V AC with 2 early make auxiliary contacts for $MC2/3$	MC2/3-XUHIV380		MC299594
Time-delay unit for MC1-MC4	MC-UVU	300 0-0	MC190154
Shunt trip 24V AC/DC for MC2/3	MC2/3-XA24AC/DC	000 0-0	MC299754
Shunt trip 110-130V AC/DC for MC2/3	MC2/3-XA130AC/D		MC299760
Shunt trip 208-250V AC/DC for MC2/3	MC2/3-XA208-250	000 0-0	MC299763
Shunt trip 24 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV24		MC299810
Shunt trip 230 VAC/DC with 1 early make auxiliary contact for MC2/3	MC2/3-XAHIV208-		MC299818



■ Load Switches MC Size 3 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Mechanical Interlock for Remote Operator for MC3	MC3-XMVR	555 0-0	MC394545
Remote Operator 24-30V DC for MC3 can be synchronised and interlocked	MC3-XR240DC	999 6-8	MC399854
Remote Operator 48-60V DC for MC3 can be synchronised and interlocked	MC3-XR48-60DC		MC399856
Remote Operator 208-240V AC for MC3 can be synchronised and interlocked	MC3-XR208-240AC	000 0-0	MC399850
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-O,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	333 0- 6	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	333 0- 6	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0-0	MC900140
Current Transformer dm=210mm	FIR-W-210	000 0-0	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0-0	MM216376
NC contact block, front montage	M22-K01	000	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	000 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940





■ Load Switches MC Size 4 - 3-pole, withdrawable



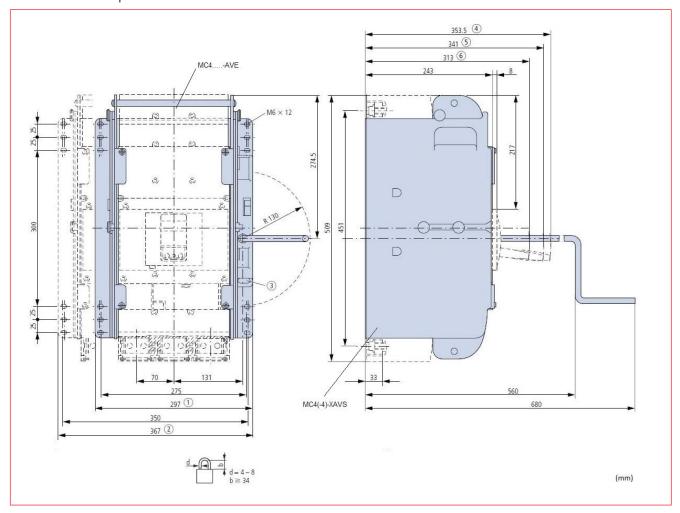
MC480035A

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 53kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 800A to 1600A

without thermomagnetic releas	
Rated current I	800 - 1600A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I_ at 415V 50/60Hz	53kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions
Standards and regulations	IEC/EN 60947-3

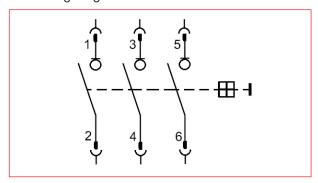
■ Load Switch 3-pole MC4..035A dimensions



- 1) 3-pole 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ Load Switches MC Size 4 - 3-pole, withdrawable



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 - 1600A Load Switches, remote releasable and withdrawable			
Switch Disconnector, 3-pole, 800A for remote operation + withdrawable module	MC4-N-800-AVE		MC480035A
Switch Disconnector, 3-pole, 1000A for remote operation + withdrawable module	MC4-N-1000-AVE		MC410035A
Switch Disconnector, 3-pole, 1250A for remote operation + withdrawable module	MC4-N-1250-AVE		MC412035A
Switch Disconnector, 3-pole, 1600A for remote operation + withdrawable module	MC4-N-1600-AVE		MC416035A

■ Load Switches MC Size 4 - 4-pole, withdrawable



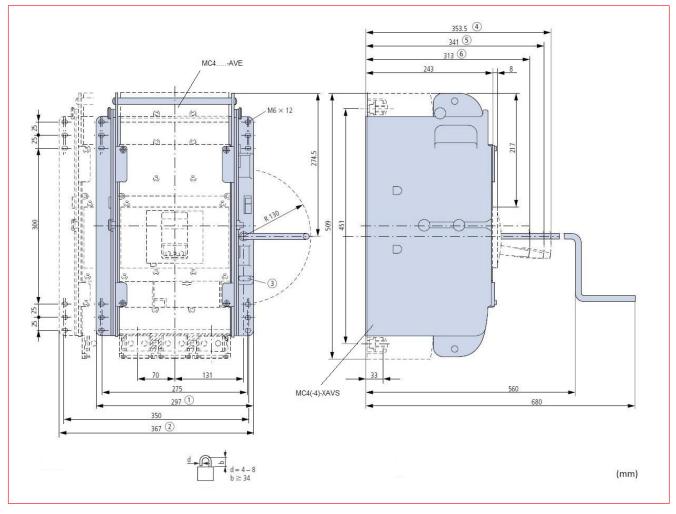
MC480045A

Schrack-Info

- Load-Break Switches without release unit
- Fitted with screw-connections
- Types for remote release are retrofit able with auxiliary contacts, motor operator, undervoltage and shunt release
- Not remote releasable types only auxiliary contacts retrofit
- Switching capacity Icm = 53kA at 415V 50/60Hz
- According IEC/EN 60947-3
- Rated continuous current = rated current 800A to 1600A

	without thermomagnetic release unit
Rated current I	800 - 1600A
Rated voltage U _e	440VAC
Rated short-circuit making capacity	
I _{cm} at 415V 50/60Hz	53kA
Ambient temperature (operation)	-25°C to +70°C
Mounting position	vertical and 90° in all directions

■ Load Switch 4-pole MC4..045A dimensions

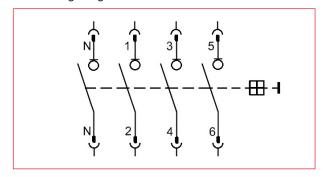


- 1) 3-pole
- 2) 4-pole
- 3) max. 3 U-locks
- 4) extended
- 5) test
- 6) retracted



■ Load Switches MC Size 4 - 4-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
800 - 1600A Load Switches, remote releasable and withdrawable			
Switch Disconnector, 4-pole, 800A for remote operation + withdrawable module	MC4-N-4-800-AVE		MC480045A
Switch Disconnector, 4-pole, 1000A for remote operation + withdrawable module	MC4-N-4-1000-AVE		MC410045A
Switch Disconnector, 4-pole, 1250A for remote operation + withdrawable module	MC4-N-1250-AVE		MC412045A
Switch Disconnector, 4-pole, 1600A for remote operation + withdrawable module	MC4-N-4-1600-AVE		MC416045A



■ Load Switches MC Size 4 - Accessories







MC496685



MC496451





MC496608



MC910175



MM216378

Schrack-Info

- Auxiliary contacts
- Door couplings
- Rotary handles
- Terminal covers
- Residual current release
- Remote operator
- Withdrawable modules

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
General accessories			
Socket Base 3-pole, MC4	MC4-XAVS	000 0-0	MC496713
Socket Base 4-pole, MC4	MC4-4-XAVS		MC496714
Main switch set for MC4	MC4-XHB		MC491779
Main switch set for MC4 with door interlock, Emergency-Stop, red/yellow, for MC4	MC4-XHBR		MC491842
Early-Make auxiliary contact, MC4	MC4-XHIV		MC496172
Door Sealing Frame for MC4	MC4-XBR		MC494646
Rotary handles, door coupling handles, accessories			
Rotary handle direct, lockable, black/grey	MC4-XDV	333 0-8	MC496608
Undervoltage release units, shunt-trips, motor operators and accessories			
Undervoltage Release 24VAC for MC4	MC4-XU24AC	000 0-0	MC496189
Undervoltage Release 110-130VAC for MC4	MC4-XU110-130AC		MC496192
Undervoltage Release 208-240VAC for MC4	MC4-XU208-240AC	355 0- 5	MC496193
Undervoltage Release 380-440VAC for MC4	MC4-XU380-440AC		MC496194
Undervoltage Release 24VDC for MC4	MC4-XU24DC	300 0-0	MC496204
Undervoltage Release 220-250VDC for MC4	MC4-XU220-250DC		MC496208
Undervoltage Release with 2 early make contacts, 230VAC, MC4	MC4-XUHIV208-240		MC496221
Undervoltage Release with 2 early make contacts, 400VAC, MC4	MC4-XUHIV380-440		MC496222
Undervoltage release for time-delay unit, for MC4	MC4-XUV		MC496588
Shunt trip 24 VAC/DC for MC4	MC4-XA24AC/DC	000 0=0	MC496447
Shunt trip 110-130V AC/DC for MC4	MC4-XA110-130AC/DC		MC496450
Shunt trip 208-250V AC/DC for MC4	MC4-XA208-250AC/DC	000 0=0	MC496451
Shunt trip with early make contact 24VAC/DC for MC4	MC4-XAVHI24AC/DC		MC496471



■ Load Switches MC Size 4 - Accessories

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Undervoltage release units, shunt-trips, motor operators and accessories			
Shunt trip with early make contact 230VAC/DC for MC4	MC4-XAVHI230AC/DC		MC496475
Remote Operator 24-30V DC for MC4, can be synchronised and interlocked	MC4-XR240DC	388 0-6	MC496686
Remote Operator 48-60V DC for MC4, can be synchronised and interlocked	MC4-XR48-60DC	000 0-6	MC496687
Remote Operator 208-240V AC for MC4, can be synchronised and interlocked	MC4-XR208-240AC	000 0-0	MC496685
Residual current release units and accessories			
Earth Leakage Release 0.03A	FIR-0,03		MC900001
Earth Leakage Release 0.3A	FIR-0,3	000 0-0	MC900002
Earth Leakage Release 0.03-5A, 0.02-5s, 1CO	FIR-5	000 0-0	MC900003
Magnetic Shielding for Core balance transformer MC900035	FIR-WMA-35		MC900010
Magnetic Shielding for Core balance transformer MC900070	FIR-WMA-70		MC900011
Magnetic Shielding for Core balance transformer MC900105	FIR-WMA-105		MC900012
Magnetic Shielding for Core balance transformer MC900140	FIR-WMA-140		MC900013
Magnetic Shielding for Core balance transformer MC900210	FIR-WMA-210		MC900014
Current Transformer dm=20mm	FIR-WS-20		MC900020
Current Transformer dm=30mm	FIR-WS-30	000 0-0	MC900030
Current Transformer dm=35mm	FIR-WS-35	585 0-5	MC900035
Current Transformer dm=70mm	FIR-W-70	000 0-0	MC900070
Current Transformer dm=105mm	FIR-W-105	000 0-0	MC900105
Current Transformer dm=140mm	FIR-W-140	000 0=0	MC900140
Current Transformer dm=210mm	FIR-W-210	555 0-5	MC900210
Current Transformer 70x175mm	FIR-WR-175	000 0-0	MC910175
Current Transformer 115x305mm	FIR-WR-305		MC910305
Current Transformer 150x350mm	FIR-WR-350		MC910350
Auxiliary contacts			
NO contact block, front montage	M22-K10	000 0=0	MM216376
NC contact block, front montage	M22-K01	555 0- 8	MM216378
Double NO contact, Cage clamp	M22-CK20	000 0-0	MM107898
Double NC contact, Cage clamp	M22-CK02	555 0-0	MM107899
NO+NC, Cage clamp	M22-CK11	000 0-0	MM107940

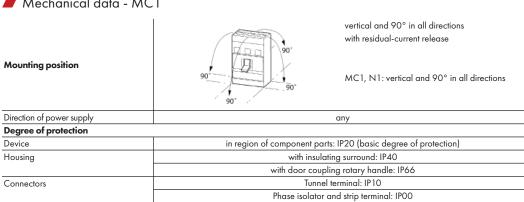


General data, mechanical data, withstand voltage MC

General data - MC1

Standards and regulations	IEC/EN 60947, VDE 0660
Protection against accidental contact	Finger and back-of-hand proof to VDE 0106 Part 100
Climate and the con-	Damp heat, constant to IEC 60068-2-78
Climate resistance	Damp heat, cyclical to IEC 60068-2-30
Ambient temperature	
Storage	−25°C+70°C
Operation	−25°C+70°C
Impact resistance (IEC/EN 60068-2-27)	20 (half-sinusoidal shock 20 ms)
Safe isolation to EN 61140	
between auxiliary contacts and main circuits	500VAC
between auxiliary contacts	300VAC

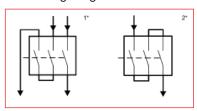
Mechanical data - MC1



Withstand voltage MC1

	Max.	rated uninterrupted current	160A
	MC1B	MC1N	MC1H
Rated impulse withstand voltage U _{imp}			
Main circuits	6000V	6000V	6000V
Auxiliary circuits	6000V	6000V	6000V
Rated operational voltage U _e	440V AC	690V AC	690V AC
Rated operational voltage breaking via 3 conductors	-	500V DC ¹⁾	500V DC ¹⁾
Surge protection/pollution degree	III/3	III/3	III/3
Rated insulation voltage U _i	690V	690V	690V
Range of application in IT networks	440V	690V	690V

Wiring diagram



- 1* Breaking one pole via two circuits in series
- $2^{\,\star}$ Breaking one pole via three circuits in series

¹⁾ for rated operational voltage breaking via 3 conductors, the following applies: DC correction factor for instantaneous release response value: MC1: 1.25, MC2: 1.35 Setting for li at DC = setting li AC/correction factor DC value applies to 3-pole protection devices with thermomagnetic release (H)1(2)-A...

General data, mechanical data, withstand voltage MC

■ General data - MC2, MC3, MC4

Standards and regulations	IEC/EN 60947, VDE 0660	
Protection against accidental contact	Finger and back-of-hand proof to VDE 0106 Part 100	
Climate and the con-	Damp heat, constant to IEC 60068-2-78	
Climate resistance	Damp heat, cyclical to IEC 60068-2-30	
Ambient temperature		
Storage	−25°C+70°C	
Operation	−25°C+70°C	
Impact resistance (IEC/EN 60068-2-27)	20 (half-sinusoidal shock 20 ms)	
Safe isolation to EN 61140		
between auxiliary contacts and main circuits	500VAC	
between auxiliary contacts	300VAC	

Mounting position	vertical and 90° in all directions with plug-in adapter MC2, N2: vertical, 90° right/left, with withdrawable unit MC3, N3: vertical, 90° left MC4, N4: vertical, with remote operator: MC2, N2, N3, 4, N4: vertical and 90° in all directions with residual-current release MC2: vertical and 90° in all directions
Direction of power supply	any
Degree of protection	
Device	in region of component parts: IP20 (basic degree of protection)
Housing	with insulating surround: IP40
	with door coupling rotary handle: IP66
Connectors	Tunnel terminal: IP10
	Phase isolator and strip terminal: IPOO

Withstand voltage MC2, MC3, MC4

	Max. rated uninterrupted current 250A			Max. rated u		Max. rated uninterrupted current 1600A	
Rated impulse withstand voltage U _{imp}	red impulse withstand voltage U _{imp} MC2B MC2N MC2H		MC3N	мсзн	MC4N	мс4н	
Main circuits	8000V	8000V	8000V	8000V	8000V	8000V	8000V
Auxiliary circuits	6000V	6000V	6000V	6000V	6000V	6000V	6000V
Rated operational voltage U _e	440V AC	690V AC	690V AC	690V AC	690V AC	690V AC	690V AC
Rated operational voltage breaking via 3 conductors	-	750V DC ¹⁾	750V DC ¹⁾	750V DC ¹⁾	750V DC ¹⁾	-	-
Surge protection/pollution degree	III/3	III/3	111/3	III/3	III/3	III/3	III/3
Rated insulation voltage U _i	1000V ²⁾	1000V	1000V	1000V	1000V	1000V	1000V
Range of application in IT networks	440V	690V	690V	690V	690V	525V	525V

Notes:

Screws and torques for MC1, 2, 3 and 4

MCCB	Screw for connecting cable lug or bus-bar	torque	
MC1	When box terminal is removed, M6x14 / hexagon socket screw, key size 4mm	9Nm	
MC2	M8x22 / hexagon socket screw, key size 5mm	14Nm	
мсз	MC3 M10x30 / hexagon socket screw, key size 8mm		
MC4	2x M10x50 / open ended wrench, size 16mm	each 50Nm	

мссв	Terminal screw of box-terminal BT or tunnel-terminal TT	torque	Screw for fixing tunnel terminal to MCCB	torque
MC1	BT, 1x70mm², built in, hexagon socket screw, key size 4mm	9Nm		
	TT, 1x95mm², hexagon socket screw, key size 5mm	15Nm	M6x14 / hexagon socket screw, key size 4mm	9Nm
MC2	When box terminal is installed, 1x185mm², hexagon socket screw, key size 5mm	30Nm		
	TT, 1x185mm², hexagon socket screw, key size 8mm	30Nm	M8x22 / hexagon socket screw, key size 5mm	14Nm
MC2	TT, 1x185mm², hexagon socket screw, key size 8mm	30Nm	M10x30 / hexagon socket screw, key size 8mm	30Nm
MC3	TT, 2x240mm², hexagon socket screw, key size 8mm	each 30Nm	nvi 10x30 / nexagon socker screw, key size 8mm	SUNM
MC4	TT, 4x240mm ² , hexagon socket screw, key size 8mm	each 31Nm	2x M10x60 / open ended wrench, size 16mm	each 50Nm



¹⁾For rated operational voltage breaking via 3 conductors, the following applies: DC correction factor for instantaneous release response value:

MC1: 1.25, MC2: 1.35, Setting for li at DC = setting li AC/correction factor DC

Value applies to 3-pole protection devices with thermomagnetic release (H)1(2)-A...

²⁾ For 3-pole protection devices, the following applies: 690V

■ Breaking capacity, service life MC

■ Breaking capacity, service life MC1, MC2

			Max. rat	Max. rated uninterrupted current Max. rated		ed uninterrupte 300A	d uninterrupted current 300A	
			MC1B	MCIN	мстн	MC2B	MC2N	MC2H
Rated short-circuit breaking capa	city values I	:m						
240V			63kA	187kA	220kA	63kA	187kA	330kA
400/415V			53kA	105kA	220kA	53kA	105kA	330kA
440V			53kA	74kA	74kA	53kA	74kA	286kA
525V			_	40kA	40kA	_	53kA	105kA
690V			_	17kA	17kA	_	40kA	40kA
Rated short-circuit breaking capo	city value I.	, I _{cs}						
Icu meets IEC/EN 60947		240V 50/60Hz	30kA	85kA	100kA	30kA	85kA	150kA
Breaking sequence O-t-CO		400/415V 50/60Hz	25kA	50kA	100kA	25kA	50kA	150kA
		440V 50/60Hz	25kA	35kA	35kA	25kA	35kA	130kA
		525V 50/60Hz	_	20kA	20kA	_	25kA	50kA
		690V 50/60Hz	_	10kA	10kA	_	20kA	20kA
		500VDC	_	15kA	30kA	_	30kA	60kA
		750VDC	_	_	_	_	30kA	60kA
Ics meets IEC/EN 60947		240V 50/60Hz	30kA	85kA	100kA	30kA	85kA	150kA
Breaking sequence O-t-CO-t-CO		400/415V 50/60Hz	25kA	50kA	50kA	25kA	50kA	150kA
		440V 50/60Hz	18,5kA	35kA	35kA	18.5kA	35kA	130kA
		525V 50/60Hz	_	10kA	10kA	_	25kA	37.5kA
		690V 50/60Hz	_	7.5kA	7.5kA	_	5kA	5kA
Maximum HBC fuse ≤1600A			MC1	.20100: 200/	A gG/gL	2554 . C / . I	2554 . 6 / . 1	2554.07
			MC1	125, 160: 315	A gG/gL	355A gG/gL	355A gG/gL	355A gG/
Utilization category to IEC/EN 609	47-2		A	А	Α	Α	Α	Α
Rated short-time withstand curre	nt I _{cw}		•					
		t = 0.3s	_	-	-	_	1.9kA	1.9kA
		t = 1 s	-	-	_	-	1.9kA	1.9kA
Rated making and breaking cape	acity I _e							
Rated operating current	AC-1	400/415V 50/60Hz	160A	160A	160A	250A	250A	250A
kalea operaling current		690V 50/60Hz	160A	160A	160A	250A	250A	250A
	AC-3	400/415V 50/60Hz	160A	160A	160A	250A	250A	250A
		690V 50/60Hz	160A	160A	160A	250A	250A	250A
	DC-1	500VDC with thermal release	_	125A	125A	-	250A	250A
		750VDC with thermal release	_	_	_	-	250A	250A
	DC-3	500VDC with thermal release	_	125A	125A	-	250A	250A
		750VDC with thermal release	_	_	_	-	250A	250A
Service life, mechanical (operation	ons)		20000	20000	20000	20000	20000	20000
Maximum operating cycles			120S/h	120S/h	120S/h	120S/h	120S/h	120S/h
Service life, electrical								
	AC-1	400/415V	100001)	10000	10000	1000011	10000	10000
	AC-1	50/60Hz	10000	10000	10000	10000	10000	10000
		690V		7500	7500		7500	7500
		50/60Hz	_	/300	/300	_	/300	/300
	AC-3	400/415V	7500 ²⁾	7500	7500	6500 ²⁾	6500	6500
	AC-3	50/60Hz	/300	/300	/300	0300	6300	0300
		690V		5000	5000		5000	5000
		50/60Hz	_			_		
	DC-1	500VDC with thermal release	-	10000	10000	-	<i>7</i> 500	75000
		750VDC with thermal release	-	_	_	-	<i>7</i> 500	<i>7</i> 500
	DC-3	500VDC with thermal release	-	5000	5000	-	300	3000
		750VDC with thermal release	-	_	-	-	3000	3000
Current heat loss per pole at Iu ³⁾			16,7W	16,7W	16,7W	19W	19W	19W
Total disconnecting time at short-			< 10ms	< 10ms	< 10ms	< 10ms	< 10ms	< 10ms



¹⁾ Maximum back-up fuse, if the expected short-circuit current at the installation location exceeds the breaking capacity of the circuit-breaker.

2) For 3-pole protection devices, the AC3 data does not apply

3) The current heat loss per pole ratings refer to the maximum current rating for the particular frame size.

■ Breaking capacity, service life MC

■ Breaking capacity, service life MC3, MC4

			cur	uninterrupted rent 80A	cur	uninterrupted rent DOA
			MC3N	мсзн	MC4N	MC4H
Rated short-circuit breaking capacity	ralues I _{cn}	1	1071		1051	0751
240V			187kA	330kA	105kA	275kA
400/415V			741.4	20414	74kA	1071 4
440V			<i>7</i> 4kA 53kA	286kA	53kA	187kA
525V 690V			40kA	143kA		143kA 105kA
	anlara I		40KA	74kA	40kA	TUSKA
Rated short-circuit breaking capacity value lcu meets IEC/EN 60947	raiue i _{cu} ,	240V 50/60 Hz	85kA	150kA	50kA	125kA
, , , , , , , , , , , , , , , , , , ,		,	50kA	150kA	50kA 50kA	
Breaking sequence O-t-CO		400/415V 50/60 Hz	35kA	130kA	35kA	85kA 85kA ¹⁰⁾
		440V 50/60 Hz	25kA	65kA	25kA	65kA
		525V 50/60 Hz		35kA		
		690V 50/60 Hz	20kA	70kA	20kA	50kA
		500VDC	30kA		-	-
		750VDC	30kA	70kA	- 271 A	-
Ics meets IEC/EN 60947		240V 50/60 Hz	85kA	150kA	37kA	63kA
Breaking sequence O-t-CO-t-CO		400/415V 50/60 Hz	50kA	150kA	37kA	43kA
		440V 50/60 Hz	35kA	130kA	26kA	43kA
		525V 50/60 Hz	13kA	33kA	19kA	49kA
		690V 50/60 Hz	5kA	9kA	15kA	37kA
			MC3N	.250, 400:		3301250:
Maximum HBC fuse ≤1600A			400A	gG/gL		A gG/gL
			MC3N630): 630A gG/gL		1600:
				T		A gG/gL
Utilization category to IEC/EN 60947-2			A	A	B (at 2000A)	B (at 2000A)
Rated short-time withstand current I _{cw}				1	2000/1	2000/1/
CW .		t = 0.3s	3.3kA	3.3kA	19.2kA	19.2kA
		t = 1s	3.3kA	3.3kA	19.2kA	19.2kA
Rated making and breaking capacity	l.					
	AC-1	400/415V 50/60 Hz	630A	630A	2000A	2000A
Rated operating current	7.0 .	690V 50/60 Hz	630A	630A	2000A	2000A
	AC-3	400/415V 50/60 Hz	630A	630A	1600A ²⁾	1600A ²⁾
	7.00	690V 50/60 Hz	630A	630A	1600A ²⁾	1600A ²⁾
	DC-1	500VDC with thermal release	500A	500A	-	-
	DC 1	750VDC with thermal release	500A	500A		_
	DC-3	500VDC with thermal release	500A	500A	_	_
	DC-0	750VDC with thermal release	500A	500A		
Service life, mechanical (operations)		7507DC Will Melmar release	15000	15000	10000	10000
Maximum operating cycles			60S/h	60S/h	60S/h	60S/h
Service life, electrical			555/11	555/11	000/11	555/11
coto mo, ordanical	AC-1	400/415V 50/60Hz	5000	5000	3000	3000
	AC-1	690V 50/60Hz	3000	3000	2000	2000
	ΔC-3	400/415V 50/60Hz	2000	2000	2000	2000
	AC-3			l		
	DC-1	690V 50/60Hz 500VDC with thermal release	2000	2000	1000	1000
	DC-1		5000	_	-	-
	DC 3	750VDC with thermal release	5000	_	_	-
	DC-3	500VDC with thermal release	2000	_	-	-
C		750VDC with thermal release	2000	-	- 07147	- 07147
Current heat loss per pole at Iu ³⁾			40W	40W	97W	97W
Total disconnecting time at short-circui Notes:	t		< 10ms	< 10ms	< 25ms ≤ 415V; < 35ms > 415V	< 25ms ≤ 415V < 35ms > 415V



Notes:

1) The current heat loss per pole ratings refer to the maximum current rating for the particular frame size.

²⁾ For 3-pole protection devices, the AC3 data does not apply

■ Weights MC

■ Weights MC1, MC2, MC3, MC4

	Туре	Weight
Circuit breaker		
	MC1-	1.046kg
	MC1-4-	1.325kg
	MC2-	2.345kg
	MC2-4-	3.5kg
	MC3-	6.0kg
	MC3-4-	7.5kg
	MC4-	21 kg
	MC4-4- / MC4-VE2000	27kg
Plug-in adapter		
	+MC2-XSV	4.7kg
	+MC2-4-XSV	5.9kg
Withdrawable unit		
	+MC3-XAV	21 kg
	+MC3-4-XAV	27kg
	+MC4-XAV	52kg
	+MC4-4-XAV	65kg
Switch disconnector		
	MC1-PN, MC1-N	0.926kg
	MC1-4-PN, MC1-4-N	1.325kg
	MC2-PN, MC2-N	2.15kg
	MC2-4-PN, MC2-4-N	2.65kg
	MC3-PN, MC3-N	5.7kg
	MC3-4-PN, MC3-4-N	7.1kg
	MC4-N	17kg
	MC4-4-N	22kg

Switch disconnector, technical data, breaking capacity MC

■ Switch disconnector – MC1, MC2, MC3, MC4

	MC1-PN, MC1-N	MC2-PN, MC2-N	MC3-PN, MC3-N	MC4-N
	max. 160A	max. 250A	max. 630A	max. 1600A
Rated impulse withstand voltage U _{imp}				
Main circuits	6000V	8000V	8000V	8000V
Auxiliary circuits	6000V	6000V	6000V	6000V
Rated operational voltage U _e	690VAC	690VAC	690VAC	690VAC
Rated uninterrupted current, max. I,				
IEC/EN 60947-3	160A	250A	630A	1600A

■ Technical data

Technical data (Iu), 125 A 160 A 550 A 1200 A differs from products destined for IEC market UL489, CSA 22.2 No. 5.1	125A	160A	550A	1200A
Surge protection/pollution degree	III/3	III/3	III/3	III/3
Rated insulation voltage Ui	690VAC	690VAC	1000VAC	1000VAC
For use in IT networks	690V	690V	690V	525V



Switch disconnector, technical data, breaking capacity MC

Breaking capacity

	MC1-PN(N)	MC2-PN(N)	MC3-PN(N)	MC4-N	
Rated short-circuit-breaking capacity values $\mathbf{I}_{\rm cm}$	2.8kA	5.5kA	25kA	53kA	
Rated short-time withstand current I _{cw}	1				
t = 0.3s	2kA	3.5kA ¹⁾	12kA	25kA	
t = 1 s	2kA	3.5kA ¹⁾	12kA	25kA	
Rated short-circuit current					
with back-up fuse	PN1(N1)-63125A gG/gL	PN2(N2)-160250A gG/gL	PN3(N3)-400630A gG/gL	N4-6301600A gG/gL	
	PN1(N1)-160A gG/gL	analogue	analogue	analogue	
400/415V	100kA	100kA	100kA	100kA	
590V	80kA	80kA	80kA	80kA	
with downstream fuse	PN1(N1)-63125A gG/gL	PN2(N2)-160250A gG/gL	PN3(N3)-400630A gG/gL	N4-6301600A gG/gL	
	PN1(N1)-160A gG/gL	analogue	analogue	analogue	
400/415V	100kA	100kA	100kA	100kA	
590V	80kA	80kA	80kA	80kA	
Rated making and breaking capacity I。					
Rated operating current AC-22/23A					
415V	160A	250A	630A	1600A	
690V	160A	250A	630A	1600A	
Service life, mechanical (operations)	20000	20000	15000	10000	
Maximum operating cycles	120S/h	120S/h	60S/h	60S/h	
Service life, electrical (operations)					
meets IEC/EN 60947-4-1 Section B					
AC-1					
400/415V	10000	100004)	5000	3000	
590V	7500	7500 ⁴⁾	3000	2000	
AC-3					
400/415V	7500	7500 ⁵⁾	3000	2000	
690V	5000	5000 ³⁾⁵⁾	2000	1000	
Current heat loss per pole at I _u ²⁾	12.7W	16W	40W	97W	

Notes

 $^{^{1)}}$ The rated short-time withstand current with MC2-PN/MC2-N in connection with Residual-current release MC2-4-XF1... Icw = 1.5kA

²¹ The current heat loss per pole ratings refer to the maximum current rating for the particular frame size.

³⁾ The following data applies to the service life, electrical AC-3 PN2/N2: 690V: max. 160kW

^{4]} For 3-pole switch disconnectors, the following applies: 400/415V 7500 operations; 690V 5000 operations

 $^{^{5)}}$ For 3-pole switch disconnectors, the following applies: 400/415V 6000 operations; 690V 4000 operations

Temperature influences - thermomagnetic release MC

Response times for the overload release at temperatures diverging from the reference temperature (40°C)

D : .			Temperatur	e compensatio	n coefficient		
Device type	20°C	30°C	40°C	50°C	60°C	65°C	70°C
Thermomagnetic release ™		•		•			•
System protection	reference tem	perature 40 °C					
MC1(-4)-A1580	1.14	1.07	1	0.93	0.86	0.83	0.79
MC1(-4)-A90125	1.14	1.07	1	0.93	0.86	0.83	0.79
MC1(-4)-A160	1.08	1.04	1	0.96	0.92	0.90	0.88
MC2(-4)-A15200	1.04	1.02	1	0.98	0.96	0.95	0.94
MC2(-4)-A250	1.04	1.02	1	0.98	0.96	0.95	0.94
MC2(-4)-A20200 with plug-in technology	1.04	1.02	1	0.98	0.96	0.95	0.94
MC2(-4)-A250 with plug-in technology	1.04	1.02	1	0.98	0.96	0.95	0.94
MC3(-4)-A250500	1.12	1.06	1	0.94	0.88	0.85	0.85
MC3(-4)-A250500 with withdrawable units	1.06	1	0.94	0.88	0.82	0.79	0.79
Short-circuit/motor contactor	reference tem	perature 40 °C	•	•	•	•	
MC1-M4080	1	0.98	0.95	0.93	0.90	0.89	0.88
MC1-M100	1	0.98	0.95	0.93	0.90	0.89	0.88
MC2-M20200	1	0.98	0.96	0.94	0.92	0.91	0.90
MC2-M20200 with plug-in technology	1	0.98	0.96	0.94	0.92	0.91	0.90

Nloto:

A slight change to the overload protection properties occurs at temperatures which diverge from the reference temperature. Therefore, in order to calculate the tripping time using the tripping characteristics curve, the temperature compensation coefficients set out in the table must also be taken into account.

Example: An MC1-A100 has been calibrated for a reference temperature of 40° C. What happens when it is operated at an ambient temperature of 60° C? At 60° C, a reduced operating current of Ir = $100A \times 0.86 = 86A$ must be taken account above the temperature coefficients.

In other words, at an ambient temperature of 60°C, the MC1-A100 would trip as if it were set to 86A.

Reducing rated operational voltage (derating) under special ambient conditions (to IEC 947)

Davides times	Derating coefficient									
Device type	20°C	30°C	40°C	50°C	60°C	65°C	70°C			
Thermomagnetic release ™										
System protection	reference temp	perature 40 °C								
MC1(-4)-A1580	1	1	1	1	1	1	1			
MC1(-4)-A90125	1	1	1	1	0.86	0.83	0.8			
MC1(-4)-A160	1	1	1	0.95	0.9	0.85	0.8			
MC2(-4)-A15200	1	1	1	1	1	1	1			
MC2(-4)-A250	1	1	1	1	0.9	0.85	0.8			
MC2(-4)-A20200 with plug-in technology	1	1	1	1	1	1	1			
MC2(-4)-A250 with plug-in technology	1	0.97	0.92	0.87	0.81	-	_			
MC3(-4)-A250500	1	1	1	0.94	0.88	0.85	0.85			
MC3(-4)-A250500 with withdrawable units	1	1	0.94	0.88	0.82	0.79	0.79			
Short-circuit/motor contactor	reference temp	perature 40 °C								
MC1-M4080	1	1	1	1	1	1	1			
MC1-M100	1	1	1	1	0.86	0.83	0.8			
MC2-M20200	1	1	1	1	1	1	1			
MC2-M20200 with plug-in technology	1	1	1	1	1	1	1			

Note:

To calculate the maximum permissible current load at different ambient operating temperatures, the derating coefficients must be taken into account as set out in the table.

Example: An MC2-A250 is to be used under an ambient operating temperature of 65° C. How much is the permissible Rated operational voltage le? At 65° C, the derating coefficient is 0.85, in other words le = $250A \times 0.85 = 212.5A$. In other words, the MC2-A250 may be operated at a maximum le = 212.5 A under an ambient temperature of 65° C.



■ Temperature influences - electronic release MC

Reducing rated operational voltage (derating) under special ambient conditions (to IEC 947)

D	Derating coefficient								
Device type	20°C	30°C	40°C	50°C	60°C	65°C	70°C		
Electronic release €									
System protection									
MC3(-4)-AE250500	1	1	1	1	1	1	1		
MC3(-4)-AE550630	1	1	1	1	0.9	0.85	0.8		
MC3(-4)-AE250400 with withdrawable units	1	1	1	1	1	1	1		
MC3(-4)-AE630 with withdrawable units	0.96	0.92	0.87	0.83	0.78	0.75	0.73		
MC4(-4)-AE6001250	1	1	1	1	1	1	1		
MC4(-4)-AE1600	1	1	1	1	0.87	0.85	0.82		
MC4(-4)-AE6301250 with withdrawable units	1	1	1	1	1	1	1		
MC4(-4)-AE1600 with withdrawable units	1	0.98	0.93	0.89	0.85	0.83	0.8		
Selective and generator protection	•				•				
MC2(-4)-VE100175	1	1	1	1	1	1	1		
MC2(-4)-VE200250	1	1	1	1	0.9	0.85	0.8		
MC2(-4)-VE100160 with plug-in technology	1	1	1	1	1	1	1		
MC2(-4)-VE250 with plug-in technology	1	1	1	0.94	0.88	0.84	0.81		
MC3(-4)-VE250500	1	1	1	1	1	1	1		
MC3(-4)-VE550630	1	1	1	1	0.9	0.85	0.8		
MC3(-4)-VE250400 with withdrawable units	1	1	1	1	1	1	1		
MC3(-4)-VE630 with plug-in technology	0.96	0.92	0.87	0.83	0.78	0.75	0.73		
MC4(-4)-VE6001250	1	1	1	1	1	1	1		
MC4(-4)-VE1600	1	1	1	1	0.87	0.85	0.82		
MC4(-4)-VE6301250 with withdrawable units	1	1	1	1	1	1	1		
MC4(-4)-VE1600 with withdrawable units	1	0.98	0.93	0.89	0.85	0.83	0.8		
Motor contactor			•		•				
MC2-ME(SE)90140	1	1	1	1	1	1	1		
MC2-ME(SE)220	1	1	1	1	0.9	0.85	0.8		
MC2-ME90140 with plug-in technology	1	1	1	1	1	1	1		
MC2-ME220 with plug-in technology	1	1	1	0.94	0.88	0.84	0.81		
MC3-ME(SE)220350	1	1	1	1	1	1	1		
MC3-ME(SE)450	1	1	1	1	1	1	1		
MC3-ME220350 with withdrawable units	1	1	1	1	1	1	1		
MC3-ME450 with withdrawable units	0.96	0.92	0.87	0.83	0.78	0.75	0.73		
MC4-ME550875	1	1	1	1	1	1	1		
MC4-ME1400	1	1	1	1	1	1	1		
MC4-ME550875 with withdrawable units	1	1	1	1	1	1	1		
MC4-ME1400 with withdrawable units	1	0.98	0.93	0.89	0.85	0.83	0.8		

Note:

To calculate the maximum permissible current load at different ambient operating temperatures, the derating coefficients must be taken into account as set out in the table. Example: An MC2-ME220 is to be used under an ambient operating temperature of 70°C.

How much is the permissible rated operational voltage le?

At 70° C, the derating coefficient is 0.8 in other words le = 250A x 0.8 = 176A.

In other words, the MC2-ME220 may be operated at a maximum le = 176A under an ambient temperature of 70°C.



■ Temperature influences - switch disconnector MC

Reducing rated operational voltage (derating) under special ambient conditions (to IEC 947)

D. Seel or			De	rating coeffici	ent		
Device type	20°C	30°C	40°C	50°C	60°C	65°C	70°C
Switch disconnector							
MC1(-4)-N-63, MC1(-4)-PN-63	1	1	1	1	1	1	1
MC1(-4)-N-100125, MC1(-4)-PN-100125	1	1	1	1	0.86	0.83	0.8
MC1(-4)-N-160, MC1(-4)-PN-160	1	1	1	0.95	0.9	0.85	0.8
MC2(-4)-N-160200, MC2(-4)-PN-160200	1	1	1	1	1	1	1
MC2(-4)-N-250, MC2(-4)-PN-200	1	1	1	1	0.9	0.85	0.8
MC2(-4)-N-160200 with plug-in technology	1	1	1	1	1	1	1
MC2(-4)-N-250	1	0.97	0.92	0.87	0.81	-	-
MC3(-4)-N-400, MC3(-4)-PN-400	1	1	1	1	1	1	1
MC3(-4)-N-630, MC3(-4)-PN-630	1	1	1	1	0.9	0.85	0.8
MC3(-4)-N-400 with withdrawable units	1	1	1	1	1	1	1
MC3(-4)-N-630 with withdrawable units	0.96	0.92	0.87	0.83	0.78	0.75	0.73
MC4(-4)-N-6301250	1	1	1	1	1	1	1
MC4(-4)-N-1600	1	1	1	1	0.87	0.85	0.82
MC4(-4)-N-6301250 with withdrawable units	1	1	1	1	1	1	1
MC4(-4)-N-1600 with withdrawable units	1	0.98	0.93	0.89	0.85	0.83	0.8

Nloto:

To calculate the maximum permissible current load at different ambient operating temperatures, the derating coefficients must be taken into account as set out in the table.

Example: An MC2-ME220 is to be used under an ambient operating temperature of 70 $^{\circ}\text{C}.$

How much is the permissible rated operational voltage le?

At 70 °C the derating coefficient is 0.8, in other words le = $250A \times 0.8 = 176A$.

In other words, the MC2-ME220 may be operated at a maximum le = 176 A under an ambient temperature of 70 °C.



Effective power loss MC

■ MC up to 500A with thermomagnetic release (3-/4-pole) MC1., MC2., MC3.

		Circuit bre	eaker MC1			sconnector MC1-PN	Circuit br	eaker MC2		sconnector MC2-PN		breaker IC3
	System p	protection	Motor	contactor				ection/Motor tactor			System	orotection
I, [A]	Р	R	Р	R	Р	R	Р	R	Р	R	Р	R
In [A]	[W]	[µOhm]	[W]	[µOhm]	[W]	[µOhm]	[W]	[µOhm]	[W]	[µOhm]	[W]	[µOhm]
20	9.8	8180	-	-	_	-	5.1	4250	-	-	-	-
25	8.8	4680	-	-	-	-	8	4250	-	-	-	-
26	-	_	-	_	_	_	-	_	-	-	-	-
30	-	-	-	-	_	-	-	-	-	-	-	-
32	9.1	3030	-	-	-	-	10	3140	-	-	-	-
33	-	_	-	_	_	-	-	_	-	-	-	-
35	-	_	-	_	_	_	-	_	-	-	-	-
40	11	2220	13.5	2810	_	-	13	2800	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
50	13.5	1760	15	1880	-	-	18	2270	-	-	-	-
60	-	-	-	_	_	-	-	_	-	_	-	_
63	14	1190	16.7	1250	6	380	20	1700	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-
80	15.5	850	21.1	1085	_	_	22	1070	-	-	-	-
90	-	-	-	_	_	_	-	_	-	-	-	-
100	24	730	25	795	15	380	28	855	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
125	38	570	-	_	24	380	29	589	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-	_	-
160	50	460	-	-	38	380	40	427	19.7	256	-	-
1 <i>7</i> 5	-	-	-	-	-	-	-	-	-	-	-	-
200	-	_	-	_	_	_	48	332	30.7	256	-	-
225	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	57	310	48	256	68	364
320	-	-	-	-	-	-	-	-	-	-	79	256
400	-	_	-	_	_	-	-	_	-	_	72	151
500	-	-	-	_	-	-	-	-	-	-	93	124

Note:

The ratings in the table apply for permanently installed 3 and 4-pole devices which are loaded uniformly.

On 4-pole devices the current in the N conductor is equal to zero.

The entire resistive load is for the measured three-pole or four-pole value.

The total power leakage is the measured value for In at 50/60Hz for a 3-pole or 4-pole switch.

The power leakage can be calculated using the formula: P = $3 \times R \times I2$

■ MC up to 1600A with electronic release (3-/4-pole) MC2., MC3., MC4.

Circuit breaker	Switch disconnector	Add-on	Circuit breaker	Switch disconnector	Add-on	Circuit breaker	Switch disconnector	Add-on
MC2	MC2-N, MC2-PN	Plug-in unit	мсз	MC3-N, MC3-PN	Plug-in unit	MC4	MC4-N	Plug-in unit
R	R	R	R	R	R	R	R	R
[µOhm]	[µOhm]	[µOhm]	[µOhm]	[µOhm]	[µOhm]	[µOhm]	[µOhm]	[µOhm]
275	256	100	100	90	70	37	37	10

Note:

The ratings in the table apply for 3 and 4-pole devices which are loaded uniformly.

On 4-pole devices the current in the $\ensuremath{\mathsf{N}}$ conductor is equal to zero.

The total resistive load is the measured value for a 3-pole or 4-pole switch (independent of In and the type of release).

The total resistive load for a switch in plug-in or withdrawable design is the result of: the resistive value for permanent installation + the resistive value for plug-in or withdrawable design.

The power leakage can be calculated using the formula: P = 3 x R x I2

Terminal capacities MC

■ Terminal capacities – MC1, MC2

			MC1, MC1-N, MC1-PN up to 160A	I _n ¹⁾	MC2, MC2-N, MC2-PN up to 250 (300)A	$I_n^{1)}$
Standard equipment		_	Box terminal	_	Screw terminal	-
Accessories			Screw connection		Box terminal	
			Tunnel terminals		Tunnel terminals	
			Rear-side		Rear-side	
			connection		connection	
Cu-conductors, Cu-cable					0000	
Box terminal	solid		1 x (10 - 16)mm ²		1 x (4 – 16)mm ²	
box leminal	30114		2 x (6 – 16)mm ²		2 x (4 – 16)mm ²	
	stranded		1 x (25 – 70) ³⁾ mm ²	160A	1 x (25 – 185)mm ²	250A
	siranaea		2 x 25mm ²			
- I I	1. 1				2 x (25 – 70)mm ²	
Tunnel terminal	solid		1 x 16mm ²	160A	1 x 16mm ²	
	stranded	1-hole	1 x (25 – 95)mm ²		1 x (25 – 185)mm ²	250A
		2-hole	-	_	-	
		4-hole	-	-	-	
Screw connection und rear-side con	nection					
directly on switch	solid		1 x (10 - 16)mm ²		1 x (4 - 16)mm ²	
			2 x (6 - 16)mm ²	1404	2 x (4 - 16)mm ²	0504
	stranded		1 x (25 - 70) ³⁾ mm ²	160A	1 x (25 - 185)mm ²	250A
			2 x 25mm ²		2 x (25 – 70)mm ²	
	1-hole	min.	_	_	_	_
		max.	_	_	_	_
Module plate —	2-hole	min.	+	_		_
	2-11016		_	_	_	_
Connection width extension		max.				
			_	_	_	_
Al-conductors, Al-cable			2			
Tunnel terminal	solid		1 x 16mm ²	160A	1 x 16mm ²	250A
	stranded	1-hole	1 x (25 – 95)mm ²		1 x (25 – 185)mm ²	
		2-hole	-	-	-	_
		4-hole	_	-	_	-
Screw connection und rear-side con	nection					
directly on switch	solid		1 x (10 - 16)mm ²		1 x (10 - 16)mm ²	
			2 x (10 - 16)mm ²	1/04	2 x (10 - 16)mm ²	0504
	stranded		1 x (25 - 35)mm ²	160A	1 x (25 - 50)mm ²	250A
			2 x (25 – 35)mm ²		2 x (25 – 50)mm ²	
	1-hole	min.		_		_
Module plate		max.	_	_	_	_
	2-hole	max.	_			
Commence of life and the commence of the comme	2-11016		- -		_	
Connection width extension	.:	I\				
Cu strip (number of segments x w	riain x segment thic					
Box terminal		min.	2 x 9 x 0.8mm	160A	2 x 9 x 0.8mm	300A
		max.	9 x 9 x 0.8mm		10 x 16 x 0.8mm	
Flat conductor terminal, basic		min.	-	-	-	-
		max.	_	_	-	-
Module plate	1-hole		-	_	-	_
Screw connection und rear-side						
connection						
Cu strip, with holes		min.	-	_	2 x 16 x 0.8mm	2001
Cu strip, with holes		max.	_	_	10 x 16 x 0.8mm	300A
Connection width extension			_	_	-	
Cu rail (width x thickness)						
Screw connection und rear-side con	nection					
	IECHOII		h 4 4		I MAO	
Screw connection			M6	-	M8	
directly on switch		min.	12 × 5mm	160A	16 x 5mm	300A
		max.	16 x 5mm		20 x 5mm	- 00, 1
Module plate	1-hole	min.	_		_	
		max.	-	-	-	-
Module plate	2-hole		-	-	-	-
Module plate Connection width extension	2-hole	min.			-	

Notes



¹⁾ The rated currents In have been calculated in accordance with IEC/EN 60947 (protection devices standard) and generally relate to the max. specified cross-sections and are used here for the purposes of orientation. The design standards which apply in each case must be observed.

²⁾ Depending on the cable manufacturer up to 240mm² can be connected

³⁾ Depending on the cable manufacturer up to $95\,\mathrm{mm}^2$ can be connected.

■ Terminal capacities MC

■ Terminal capacities – MC3, MC4

			MC3, MC3-N, MC3-PN bis 630A	I _n ¹⁾	MC4, MC4-N up to 1600A	$I_n^{(1)}$
Standard equipment			Screw connection		Screw terminal	-
Accessories			Box terminal		Tunnel terminals	
			Tunnel terminals		Rear-side	
			Rear-side		connection	
			connection			
Cu conductore Cu coble			connection		Strip terminal	
Cu-conductors, Cu-cable	1. 1		2	<u> </u>		
Box terminal	solid		2 x 16mm ²	5004	-	-
	stranded		1 x (35 - 240)mm ² 2 x (25 - 120)mm ²	500A	-	-
Tunnel terminal	solid		2 X (25 = 120)11111	_	1 .	
Tunnet terminal		1.1.1	_		-	_
	stranded	1-hole	1 x (25 – 185)mm ²	350A	-	-
		2-hole	1 x (50 – 240)mm ²	630A	-	-
			2 x (50 - 240)mm ²	2×185 ²⁾	-	-
		4-hole	-	_	4 x (50 - 240)mm ²	1400A
Screw connection und Rear-side co	onnection					
directly on	solid		1 x 16mm ²			-
switch			2 x 16mm ²			
	stranded		1 x (25 – 240)mm ²	630A2x185 ²⁾	1 x (120 - 185)mm ²	
	sirunueu		2 x (25 – 240)mm ²		4 x (50 - 185)mm ²	1250A
M 11 1.	2.1.1		<u> </u>		, ,	
Module plate	1-hole	min.	-	-	1 x (120 - 300)mm ²	1000A
		max.	-	-	2 x (95 - 300)mm ²	
Module plate	2-hole	min.	-	-	2 x (95 - 185)mm ²	1400A
		max.	-	-	4 x (35 - 185)mm ²	1400A
Connection width extension			2 x 300mm ²	630	4 x 300mm ²	1600A
				2x185 ²⁾	6 x (95 - 240)mm ²	4×240^{2}
Al-conductors, Al-cable				22100	0 X (70 240)IIIII	4 X Z 4 0
Tunnel terminal	solid		1 x 16mm ²			
lunnel ferminal				350A	-	-
	stranded	1-hole	1 x (25 – 185) ²⁾ mm ²		-	-
		2-hole	1 x (50 – 240)mm ²	630A	-	-
			$2 \times (50 - 240) \text{mm}^2$	0007		
		4-hole	-	_	4 x (50 - 240)mm ²	1400A
Screw connection und Rear-side co	onnection					
directly on	solid		1 x 16mm ²		-	-
Switch	00.114		2 x (10 – 16)mm ²			
- Switch	stranded		1 x (25 – 120)mm ²	400A		_
	stranaea				-	-
			2 x (25 – 120)mm ²			
Module plate	1-hole	min.	-	_	1 x (185 - 240)mm ²	upon request
		max.	-	-	2 x (70 - 185)mm ²	11
Module plate	2-hole		_	-	4 x 50mm ²	-
Connection width extension					2 x 240mm ²	upon request
					6 x (70 - 240)mm ²	
Cu strip (number of segments x	width x seament t	hickness)	•	'	•	
Box terminal		min.	6 x 16 x 0.8mm		_	-
		max.	10 x 24 x 1.0mm		_	_
		mux.	+ 5 x 24 x 1.0mm	630A	•	-
			I			
			(2 x) 8 x 24 x 1.0mm		, , , , , -	
Flat conductor terminal, basic		min.	-	-	6 x 16 x 0.8mm	1100A
		max.	-	-	(2x) 10 x 32 x 1.0mm	
Module plate	1-hole		-	-	(2x) 10 x 50 x 1.0mm	1250A
						(2 x) 10 x 40 x 1.0
Screw connection und Rear-side co	onnection		-	•	•	
		min.	6 x 16 x 0.8mm		(2x) 10 x 50 x 1.0mm	
Cu strip with holes			10 x 32 x 1.0mm		(2x) 10 x 50 x 1.0mm	1600A
Cu strip, with holes		max.	1	6204	(ZA) 10 X 30 X 1.UMM	IOUUA
			+ 5 x 32 x 1.0mm	630A	(0.) 10. 00. 1.1	
Connection width extension			(2x) 10 x 50 x 1.0mm ²		(2x) 10 x 80 x 1.0mm	1600A
						2 x (10 x 50 x 1.0
Cu rail (width x thickness)						
Screw connection und Rear-side co	onnection					
Screw connection			M10	-	M10	-
directly on Switch		min.	20 x 5mm	630A	25 x 5mm	
		max.	30 x 10mm	230/1	2 x (50 x 10)mm	1600A
		mux.			· · ·	1000A
	- 1 1		+30 x 5mm		2 x (80 x 10)mm	10.55
	1-hole	min.	-	-	25 x 5mm	1250A
Module plate		max.		-	2 x (50 x 10)mm	2 x (40 x 10)
	2-hole		-	-	2 x (50 x 10)mm	1600A
Connection width extension		min.	_	630A	60 x 10mm	1600A
			2 x (10 x 50)mm	10x40	2 x (80 x 10)mm	2 x (50 x 10)
Notos		max.	L Z X (TO X DOJMM	10340	2 X (00 X 10)mm	2 x (30 X 10)

Notes:



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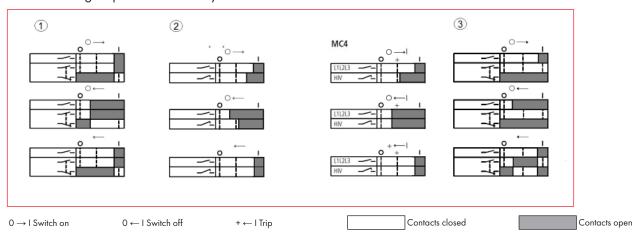
²⁾ Depending on the cable manufacturer up to 240 mm² can be connected 3) Depending on the cable manufacturer up to 95 mm² can be connected.

Auxiliary contacts, contact sequence MC

Auxiliary contacts M22-K..., XHIV

		Туре M22-К	Type MCXHIV
		at AC = 50/60Hz	at AC = 50/60Hz
Rated operational voltage U _e			
AC		500VAC	500VAC
DC		220VDC	220VDC
Conventional thermal current $I_{th} = I_{e}$		4A	4A
Rated operational voltage I _e			•
AC-15	115V	4A	4A
	230V	4A	4A
	400V	2A	2A
	500V	1A	1A
DC-13	24V	3A	3A
	42V	1.7A	1.5A
	60V	1.2A	0.8A
	110V	0.8A	0.5A
	220V	0.3A	0.2A
Short-circuit protection		·	·
Max. safety fuse		10 A gG/gL	10 A gG/gL
Max. miniature circuit breaker		BE5(10A)	BM (6A)
Early-make time compared to the r	nain contacts	_	MC1: approx. 20ms
during switch on and off			MC2: approx. 20ms
(breaking times with manual operation)		MC3: approx. 20ms
			MC4: approx. 90ms
			The HIV is not early closing on
			the MC4
Terminal capacities			
Solid or flexible conductor with end sle	eeve	1 x (0.75 – 2.5)mm ²	1 x (0.75 - 2.5)mm ²
		2 x (0.75 - 2.5)mm ²	2 x (0.75 - 2.5)mm ²

■ Contacting sequence of auxiliary contacts

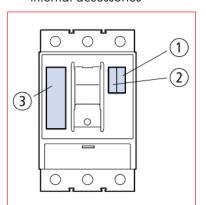


- 1) Standard auxiliary contact (HIN)
- 2) Early-make auxiliary contact (HIV)
- 3) Trip-indicating auxiliary contact (HIA)

Note: If early-make contacts are required in combination with shunt or undervoltage releases, please select the combination type from the section on "Releases".

■ Component installation with auxiliary contacts, time differences MC

Maximum component installation and position of internal accessories



1) HIN	2) HIA	3) MCXHIV(2S) -XA or -XU
(normal)	(triggered)	(early-make)
1	1	1
2	1	1
3	1	1
3	2	11)
1	-	1 ³⁾
2	-	13)
3	-	13)
	(normal) 1 2 3 3 1	(normal) (triggered) 1 1 2 1 3 1 3 2 1 - 2 -

HIN = M22-K.. or M22-CK.. HIA = M22-K.. or M22-CK.. Contacts per connection port HIA and HIN

1 NO 1 NC 2 NO 2 NC 1 NO, 1 NC

NO= normally-open NC = normally-closed

	Time difference a (ms)					Time difference b (ms)						
	Mo	anual operati	ion	M	otor operate	or	Manual operation			N	Motor operator	
	HIV	н	IN	HIV	н	IN	HIV	Н	IN	HIV	Н	IN
		NO	NC		NO	NC		NO	NC		NO	NC
MC1	20 ²⁾	0	2.5	-	-	-	20 ²⁾	0	2.5	-	-	-
MC2	20 ²⁾	3.5	6.5	not permissible	2.5	4.5	20 ²⁾	3	4.5	not permissible	3	4
мсз	202)	4	8	not permissible	2	4	20 ²⁾	3.5	8	not permissible	3	6.5
MC4	90 ²⁾	7	11	not permissible	upon request	upon request	O ¹⁾²⁾	12	15	not permissible	upon request	upon request

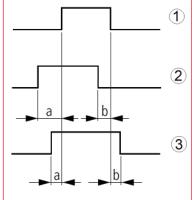
Notes

- 1) With MC4/N(S)4, the HIV is not early-make.
- 2) Minimum value, since it is dependent on the breaking speed

■ Time difference ON-OFF

■ Time difference MC1, MC2, MC3, MC4

- 1) Main contact
 - 2) Auxiliary contact, early-make (HIV)
 - 3) Auxiliary contact, normal (HIN)





■ Undervoltage release / shunt trip MC

Undervoltage release MC.-XU

	MC1(2/3)-XU	MC4-XU
Rated control voltage U,	,	
AC at 50/60 Hz	24600VAC	24600VAC
DC	12250VDC	12250VDC
Operating range		
Operating range x U _s	0.35 – 0.7	0.35 – 0.7
Pull-in voltage x Us	0.85 – 1.1	0.85 – 1.1
Power consumption		
AC		
Pull-in power AC	1.5VA	3.6VA
Standby power AC	1.5VA	3.6VA
DC		
Pull-in power DC	0.8W	2.5W
Standby power DC	0.8W	2.5W
Max. opening delay	19 ms	23ms
(response time until the main circuits open)	IYMS	23ms
Minimum command time	10 – 15ms	10 - 15ms
Terminal capacities		
Solid or flexible conductor with end sleeve	1 x (0.75 – 2.5)mm ²	1 x (0.75 - 2.5)mm ²
Solia or flexible conductor with end sleeve	2 x (0.75 - 2.5)mm ²	2 x (0.75 - 2.5)mm ²

■ Undervoltage release, off-delay MC-UVU

	MC-UVU
Rated operational voltage U _o	·
AC at 50/60Hz	24, 220 – 550VAC
DC	24VDC
Peak inrush current I _e	< 500mA
Power consumption	50VA
Delay time tsd	70 – 4000ms
with additional external capacitor 90.000 μF 35V	up to 16s
with additional external capacitor 30.000 μF 35V	up to 8s
Terminal capacities	
Solid or flexible conductor with end sleeve	1 x (0.5 – 2.5)mm ²
Solid or flexible conductor with end sleeve	$2 \times (0.5 - 1.5) \text{mm}^2$

Shunt trip MC.-XA

	MC1(2/3)-XA	MC4-XA
Rated control voltage U,		1
AC	12440VAC	12440VAC
DC	12440VDC	12440VDC
Frequency range	0 – 400Hz	0 – 400Hz
Operating range		
AC x U _s	0.71.1	0.71.1
DC x U _e	0.71.1	0.71.1
Power consumption		
Pull-in power AC/DC	2.5VA/W	2.5VA/W
Standby power AC/DC	2.5VA/W	2.5VA/W
Maximum current consumption at 110 % U _s (230 V 50Hz)	-	_
Max. opening delay	20ms	22ms
(response time until the main circuits open)		-
Maximum duty cover	*	*
Minimum command time	10 – 15ms	10 - 15ms
Terminal capacities		
Solid or flexible conductor with end sleeve	1 x (0.75 – 2.5)mm ²	1 x (0.75 – 2.5)mm ²
	2 x (0.75 – 2.5)mm ²	2 x (0.75 - 2.5)mm ²

^{*} No restriction, duty indefinitely



Remote operator MC

	MC2-XR	MC3-XR	MC4-XR
Rated control voltage U,	•		
AC	110440VAC	110440VAC	110440VAC
DC .	24250VDC	24250VDC	24250VDC
Operating range	·		
AC x U _s	0.851.1	0.851.1	0.851.1
DC x U _s	0.851.1	0.851.1	0.851.1
Rated operational voltage of motor	·		
AC 110 V- 130VAC	350VA	350VA	350VA
208 V- 240VAC	350VA	350VA	350VA
380V- 440VAC	350VA	350VA	350VA
DC 24V- 30VDC	250W	250W	250W
110V- 130VDC	250W	250W	250W
220V- 250VDC	250W	250W	250W
Rated operational voltage of coil	·		
AC 110V- 130VAC	270VA	270VA	270VA
208V- 240VAC	270VA	270VA	270VA
380V- 440VAC	270VA	270VA	270VA
DC 24V- 30VDC	210W	210W	210W
100V- 130VDC	210W	210W	210W
220V- 250VDC	210W	210W	210W
Total make time	60ms	80ms	100ms
Total disconnecting time	300ms	1000ms	3000ms
Minimum signal duration			
with switch on	30ms	30ms	30ms
with switch off	150ms	250ms	500ms
Service life, mechanical (operations)	20000	15000	10000
Maximum operating cycles	120S/h	60S/h	20S/h
Terminal capacities			
Solid or flexible conductor with end sleeve	0.75 - 2.5mm ²	0.75 - 2.5mm ²	0.75 - 2.5mm ²



Residual current release relay MC

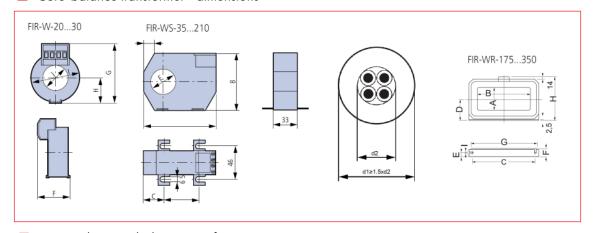
■ Technical data - electrical

	FIR-003	FIR-03	FIR-5				
Standards and regulations	IEC	IEC/EN 60947-2, IEC 755, IEC 1008, IEC 1009					
Sensitivity		pulse current sensitive, type A					
Rated control voltage Us		230VAC, 20% (50/60 Hz)					
Rated control voltage P _e	3W	3W	3W				
Rated fault current $I_{\Delta n}$	0.03A	0.3A	0.03, 0.1, 0.3, 0.5, 1, 3, 5A				
Delay time t _v	0.02s (not-delayed)	0.02s (not-delayed)	0.02, 0.1, 0.3, 0.5, 1, 3, 5A				
Relay contacts	1 integral C/O	1 integral C/O	1 integral C/O				
Rated input voltage, relay contacts	250/100VAC/DC	250/100VAC/DC	250/100VAC/DC				
Rated current of the relay contacts	6A	6A	6A				
Fault current warning	-	-	0,5Hz = 25% - 50% I _{∆n}				
			Hz = 50% -75% I _{∆n}				
			2Hz = 75% - 100% I _{∆n}				

■ Technical data - mechanical

Front fitting width	45mm	45mm	45mm		
Size of device base	85mm	85mm	85mm		
Device width	45mm	45mm	45mm		
Assembly	Snap fixing for top hat rail DIN 46277, EN 50022				
Terminals above and below	Box terminals				
Terminal protection	Finger and back-of-hand proof to BGV A2, VDE 106 part 100				
Terminal capacities	2 x 0.75mm² - 2.5mm² solid, 2 x 0.75mm² - 1.5mm² flexi-/with sleeve				
Lead-sealability of setting buttons	-	-	yes		

■ Core-balance transformer - dimensions



Rectangular core-balance transformer

Туре	Α	В	С	D	E	F	G	Н	- 1
FIR-WR-175	70	175	225	85	22	46	261	176	7,5
FIR-WR-305	115	305	360	116	25	55	402	240	8
FIR-WR-350	150	350	415	140	28	55	460	285	8

Round core-balance transformer - maximum nominal current

Max. nomi	nal current	[Diameter
Power distribution	Motor/capacitor	Transformer type	Maximum conductor cross- section
(A)	(A)	FIR-W d1	(mm) d2
50	50	20	13
150	100	30	20
150	100	35	23
400	200	70	47
600	250	105	70
1200	630	140	93
1800	800	210	140



Residual current release MC1, MC2

Electrical data

	MC1(-4)-XFI30R	MC1(-4)-XFI300R	MC1(-4)-XFIR	MC1(-4)-XFI30U	MC1(-4)-XFI300U	MC1(-4)-XFIU
Standards and regulations	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2
Sensitivity	Pulse current sensitive accord. to core-balance principle					
Min. operational voltage						
for sensing residual currents	80V	80V	80V	80V	80V	80V
·	(independent of	(independent of	(independent of	(independent of	(independent of	(independent of
Type A/AC	supply voltage)	supply voltage)	supply voltage)	supply voltage)	supply voltage)	supply voltage)
for sensing residual currents						
Туре В	_	_	_	_	-	-
Suitable for use	in three- and single-phase systems			in three-phase systems	in three-phase systems	
Rated operational voltage U _e	200415V AC (3~)	200415V AC (3~)	200415V AC (3~)	200415V AC (1~)	200415V AC (1~)	200415V AC (1~)
Rated frequency f	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
No. of poles	2/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole	3/4-pole
Rated current range I _n	15125A	15125A	15125A	15100A	15100A	15100A
Rated fault currents $I_{\Delta n}$	0.03A	0.3A	0.030.10.3A	0.03A	0.3A	0.030.10.3A
			0.513A			0.513A
Sensing range, fault current	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Rated making and	= I _{cu}	= _{cu}	= _{cu}	= I _{cu}	= I _{cu}	= I _{cu}
breaking capacity $I_{\Delta m}$						
Fault current warning	≥ 0.3 x I _{Δn}	≥ 0.3 x I _{Δn}	≥ 0.3 x I _{Δn}	≥ 0.3 x I _{Δn}	≥ 0.3 x I _{Δn}	≥ 0.3 x I _{Δn}
Impact resistance (IEC 60068-2-27)	20 (half-sinusoidal shock 20 ms)					
Service life, mechanical (operations)	20000	20000	20000	20000	20000	20000
(of which 50 % with fault current)						

	MC2-4-XFI30	MC2-4-XFI	MC2-4-XFIA30	MC2-4-XFIA
Standards and regulations	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2
Sensitivity	pulse current sensitive	pulse current sensitive	AC/DC current	AC/DC current
Sensitivity	poise correin sensitive	poise correin sensilive	sensitivity (type B)	sensitivity (type B)
Min. operational voltage				
for sensing residual currents	OV	OV	OV	OV
T / . C	(independent of	(independent of	(independent of	(independent of
Type A/AC	supply voltage)	supply voltage)	supply voltage)	supply voltage)
for sensing residual currents			50V	50V
T D (CK)	-	-	(independent of	(independent of
Type B (SK)			supply voltage)	supply voltage)
Suitable for use	in three- and single-phase systems			
Rated operational voltage U _e	280690V AC	280690V AC	50400V AC	50400V AC
	(3~/1~)	(3~/1~)	(3~/1~)	(3~/1~)
Rated frequency f	50/60Hz	50/60Hz	50/60Hz	50/60Hz
No. of poles	4-pole	4-pole	4-pole	4-pole
Rated current range In	15250A	15250A	15250A	15250A
Rated fault currents $I_{\Delta n}$	0.03	0.10.313A	0.03A	0.30.51A
Sensing range, fault current	50/60Hz	50/60Hz	50/60 4-pole	50/60 4-pole
0 0,	,	,	15250 0.03 with	15250 0.03 with
			AC: 0 – 100 kHz	AC: 0 – 100 kHz
			with intermittent DC:	with intermittent DC:
			50 Hz	50 Hz
Rated making and	= _{cu}	= _{cu}	= I _{cu}	= I _{cu}
breaking capacity I _{∆m}				
Fault current warning	-	-	-	-
Impact resistance (IEC 60068-2-27)	20 (half-sinusoidal shock 20 ms)			
Service life, mechanical (operations)	2000	2000	2000	2000
(of which 50 % with fault current)				



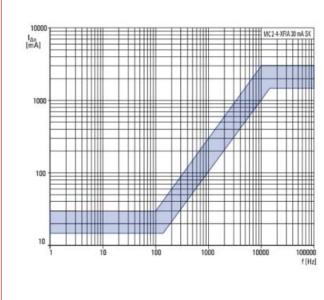
Residual current release MC1, MC2

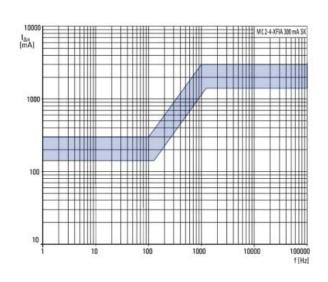
Mechanical data

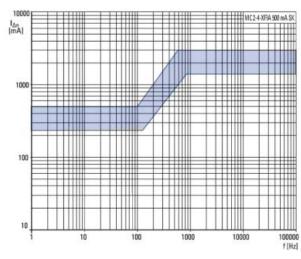
	MC1(-4)-XFI30R	MC1(-4)-XFI300R	MC1(-4)-XFIR	MC1(-4)-XFI30U	MC1(-4)-XFI300U	MC1(-4)-XFIU
Front fitting width	45mm	45mm	45mm	45mm	45mm	45mm
Assembly	side, on right	side, on right	bottom	bottom	bottom	bottom
Mounting position	vertical and 90° in all directions					
Power supply	MC1 from top	MC1 from top	MC1 from top	MC1 from top	MC1 from top	MC1 from top
Degree of protection	IP20 in the operating components area					
Ambient operating temperature	−5°C+40°C	-5°C+40°C	−5°C+40°C	−5°C+40°C	−5+40°C	-5+40°C
Lead sealability	-	-	yes, setting buttons	-	-	yes, setting buttons
Terminal capacities						,
Flexible without end sleeve	as standard terminal MC1 as standard terminal MC1			erminal MC1		
Flexible with end sleeve	as standard terminal MC1 as standard terminal MC1					

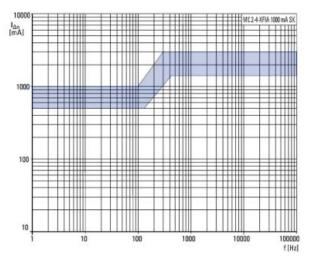
	MC2-4-XFI30	MC2-4-XFI	MC2-4-XFIA30	MC2-4-XFIA
Front fitting width	96mm	96mm	96mm	96mm
Assembly	bottom	bottom	bottom	bottom
Mounting position	vertical and 90° in all directions			
Power supply	as required	as required	bottom	bottom
Degree of protection	IP20 in the operating components area			
Ambient operating temperature	-25+70°C	-25+70°C	−25+70°C	−25+70°C
Lead sealability	-	-	yes, setting buttons	yes, setting buttons
Terminal capacities				
Flexible without end sleeve	as MC2 standard connection			
Flexible with end sleeve	as MC2 standard connection			

Frequency response - residual current release, size 2



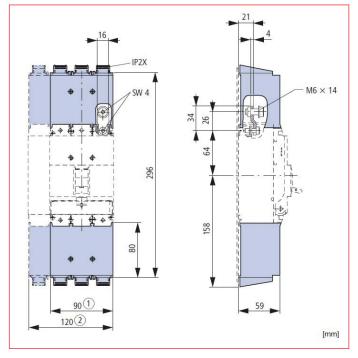






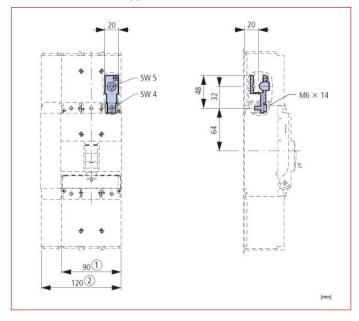


Cover plates types MC1-XKSA, MC1-4-XKSA / Screw fitting types MC1-XKS, MC1-4-XKS / IP2X Finger protection for cover plate types MC1-XIPA, MC1-4-XIPA



- 1) 3-pole
- 2) 4-pole

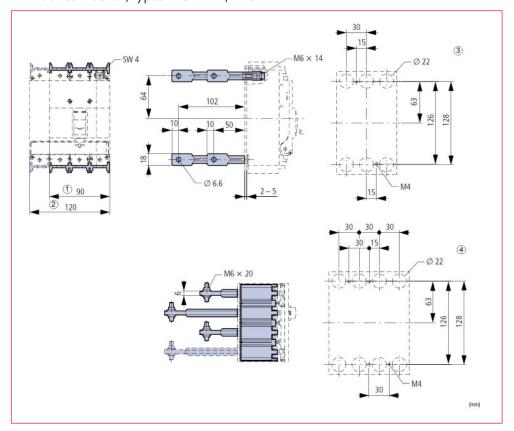
■ Tunnel terminal, types MC1-XKA, MC1-4-XKA



- 1) 3-pole
- 2) 4-pole

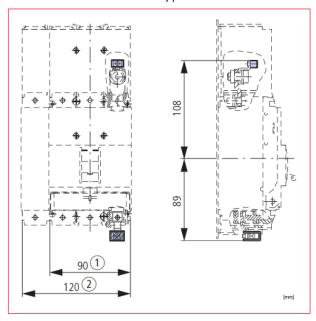


Rear connection, types MC1-XKR, MC1-4-XKR



- 1) 3-pole 2) 4-pole
- 3) outbreaks in the mounting plate 3-pole version 4) outbreaks in the mounting plate 4-pole version

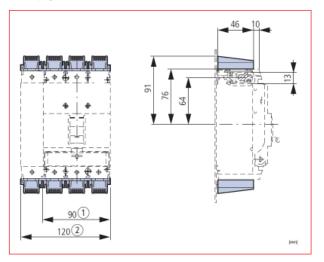
■ Control circuit terminal type MC-XSTK



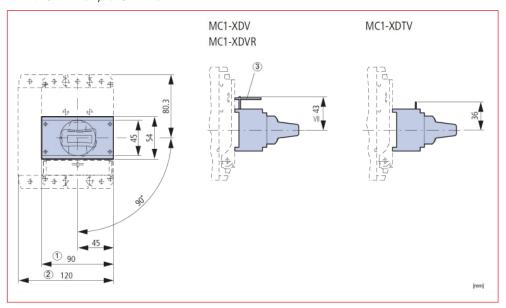
- 1) 3-pole
- 2) 4-pole



- Dimensions MC1 Accessories
- IP2X Finger protection types MC1-XIPK, MC1-4-XIPK

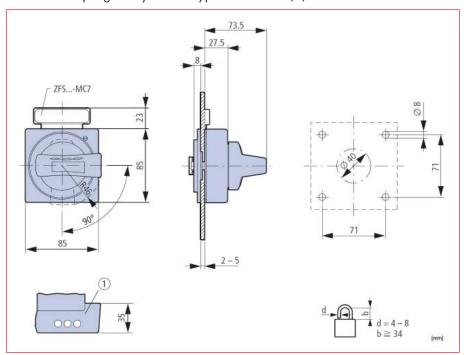


- 1) 3-pole
- 2) 4-pole
- Rotary operator, rotary handle on switch, types MC1-XDV, MC1-XDVR, MC1-XTVD



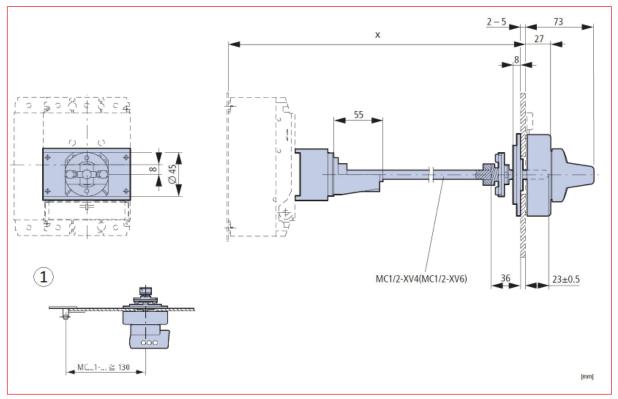
- 1) 3-pole
- 2) 4-pole
- 3) max. 3 padlocks

■ Door coupling rotary handle type MC1-XTVD(V)®



1) max. 3 padlocks

■ Door coupling rotary handle with extension shaft, types MC1-XTVD(V)(R), MC1/2-XV4...6

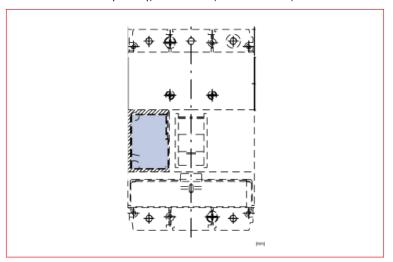


Туре	×
MC1/2-XV4	210 – 400
MC1/2-XV6	400 – 600

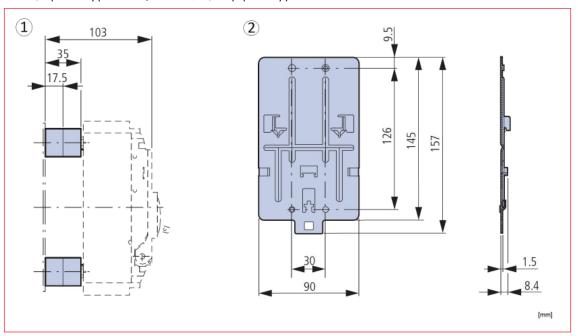
1) Minimum distance, door coupling rotary handle and door pivot point



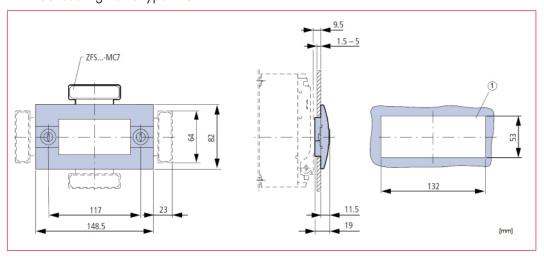
- Dimensions MC1 Accessories
- Undervoltage release / shunt release / early make auxiliary contact MC1-XUL(XUVL), MC1-XAL, MC1-XHIVL, MC1-XUHIVL



1) Spacer type MC1/2-XAB, 2) Clip plate type MC1-XC35

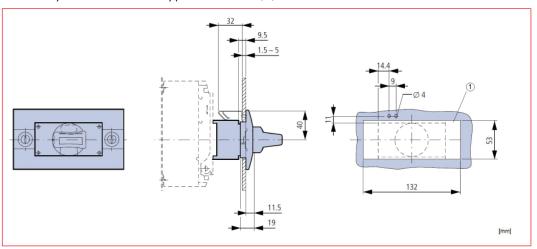


■ Door sealing frame type MC1-XBR

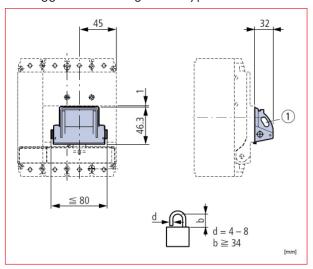


1) Mounting aperture

Rotary handle on switch type MC1-XDTV(R)

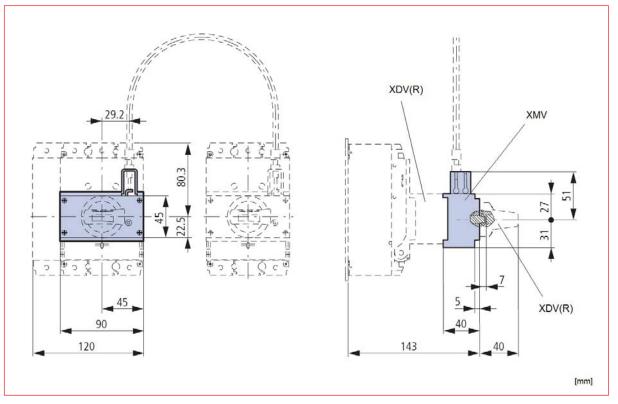


■ Toggle lever locking device type MC-XKAV



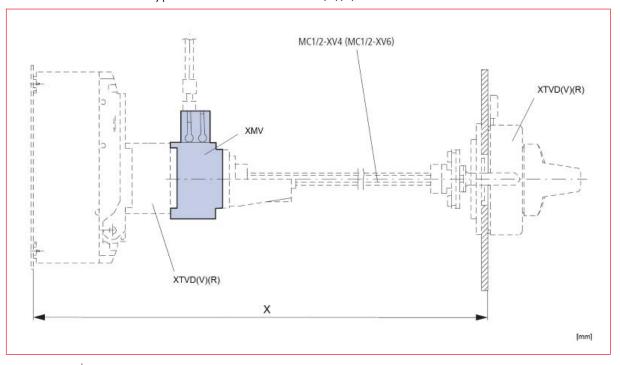
1) max. 3 padlocks

- Dimensions MC1 Accessories
- Mechanical interlock types MC1-XMV+MC1-XDV



- 1) 3-pole 2) 4-pole

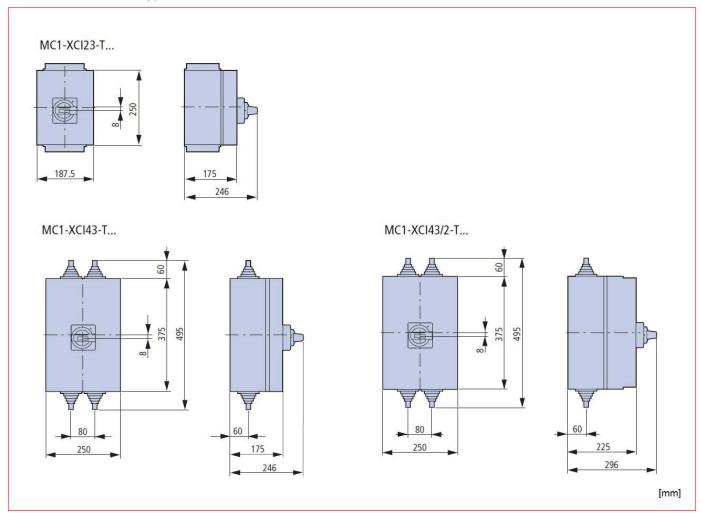
Mechanical interlock types MC1-XMV+MC1-XTVD(V)(R)



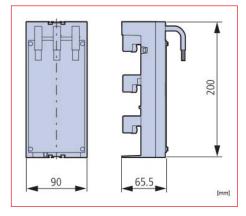
Туре	х
MC1/2-XV4	245 – 400
MC1/2-XV6	400 – 600



■ Insulated enclosure types MC1-XCl23-T..., MC1-XCl43-T..., MC1-XCl43/2-T...

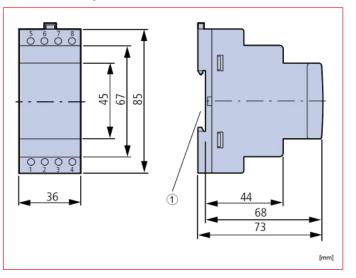


Component adapter type 32570



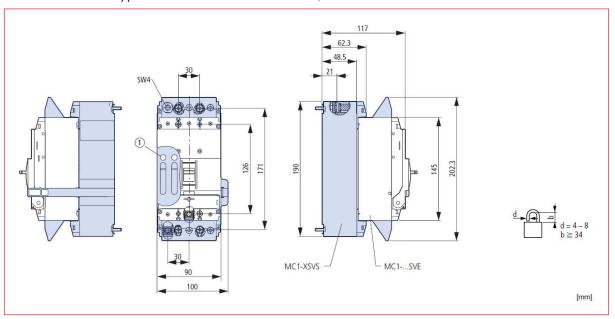
1) max. 2 padlocks

- Dimensions MC1 Accessories
- Earth leakage release FIR-0,03 FIR-0,3 FIR-5

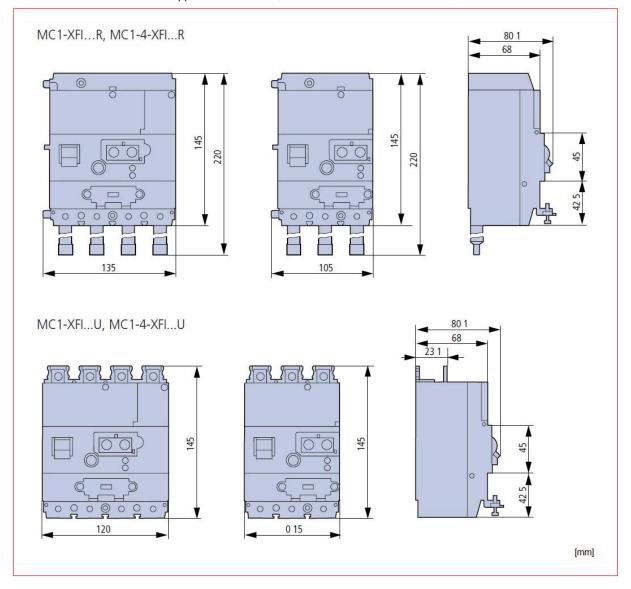


1) Fixing on DIN rail TH35 according IEC / EN 60715

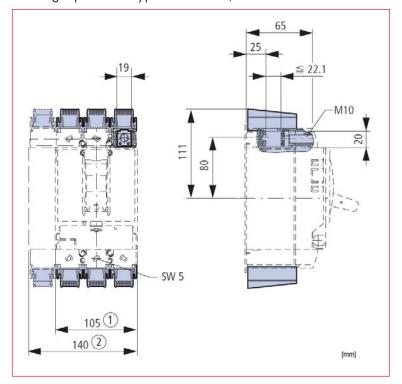
■ Terminal socket types MC1-XSVS MIT MC1-...-SVE, MC1-N-...-SVE



- Dimensions MC1 Accessories
- Residual current release types MC1-XFI...R, MC1-4-XFI...R, MC1-XFI...U, MC1-4-XFI...U

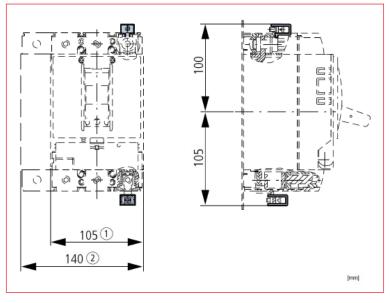


- Dimensions MC2 Accessories
- Box terminal types MC2-...XKC, MC2-4-...XKC / IP2X Finger protection types MC2-XIPK, MC2-4-XIPK



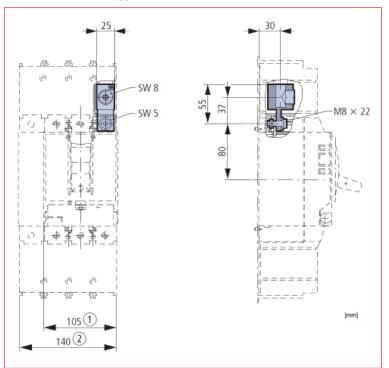
- 1) 3-pole
- 2) 4-pole

■ Control circuit terminal types MC2-XSTS, MC-XSTK

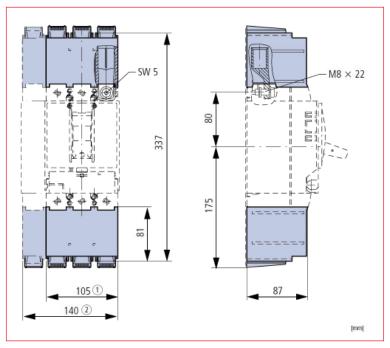


- 1) 3-pole
- 2) 4-pole

- Dimensions MC2 Accessories
- Tunnel terminal types MC2-XKA, MC2-4-XKA

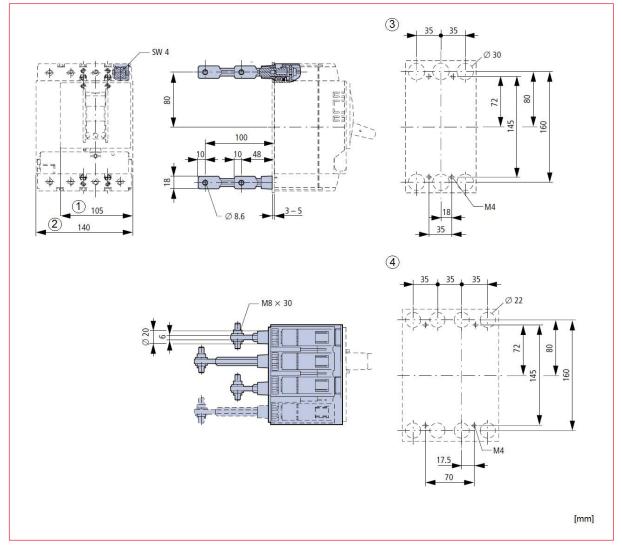


- 1) 3-pole
- 2) 4-pole
- Cover plate types MC2-XKSA, MC2-4-XKSA / cable lug type MC2-XKS185 / IP2X finger protection for cover plate types MC2-XIPA, MC2-4-XIPA



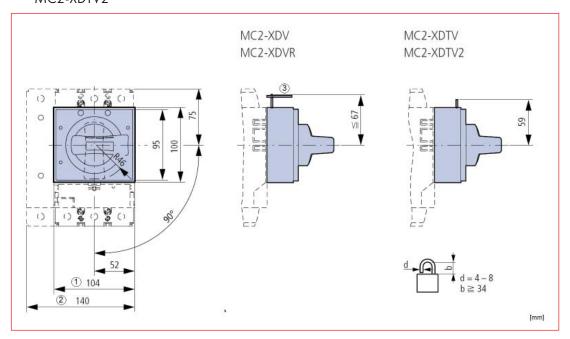
- 1) 3-pole
- 2) 4-pole

- Dimensions MC2 Accessories
- Rear connection types MC2-XKR, MC2-4-XKR



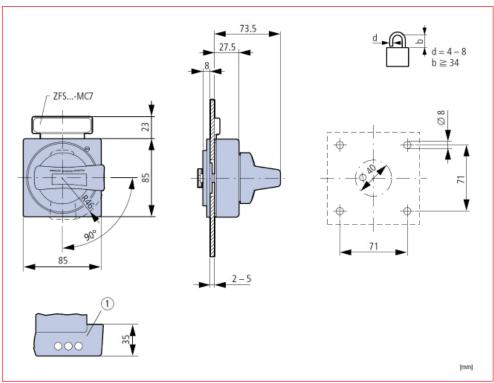
- 1) 3-pole 2) 4-pole
- 3) Outbreaks in the mounting plate 3-pole version
- 4) Outbreaks in the mounting plate 4-pole version

- Dimensions MC2 Accessories
- Rotary operator, rotary handle on switch, types MC2-XDV, MC2-XDVR, MC2-XDTV, MC2-XDTV2



- 1) 3-pole 2) 4-pole
- 3) max. 3 padlocks

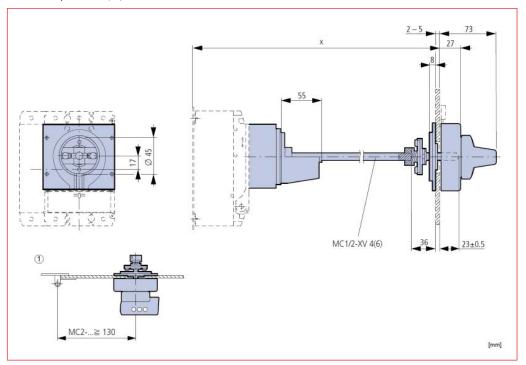
■ Door coupling rotary handle type MC2-XTVD(V)(R)



1) max. 3 padlocks



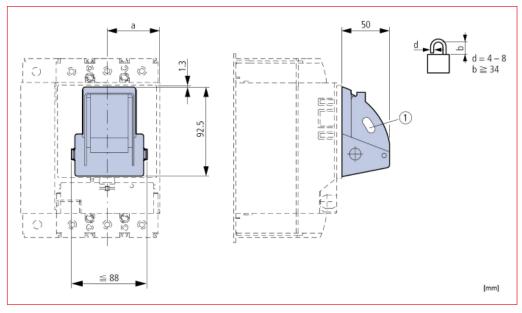
- Dimensions MC2 Accessories
- Door coupling rotary handle with extension shaft, types MC2-XTVD(V)(R), MC1/2-XV4(6)



Туре	x (mm) 210 – 400 400 – 600	
MC1/2-XV4	210 – 400	
MC1/2-XV6	400 – 600	

1) Minimum distance, door coupling rotary handle and door pivot point

■ Toggle lever locking device type MC2/3-XKAV

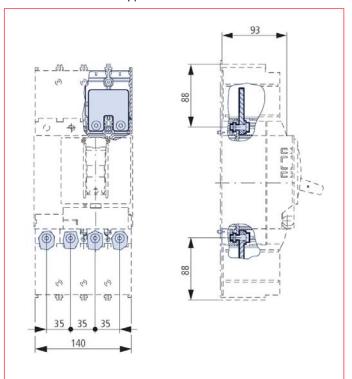


1) max. 3 padlocks

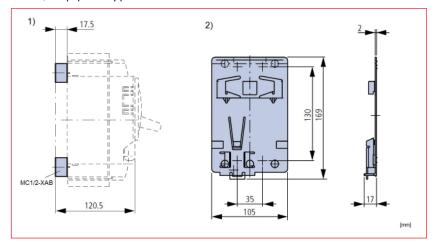
Туре	а
MC2(-PN)(-N)	52.5
MC3(-PN)(-N)	<i>7</i> 0



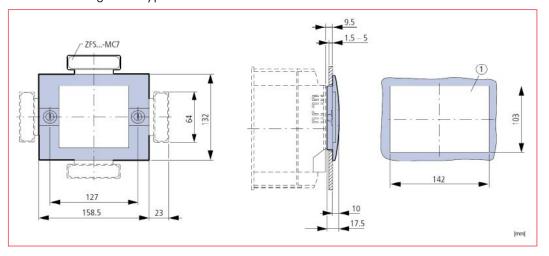
- Dimensions MC2 Accessories
- Serial connector type MC2-4-XKV2P



- 1) Spacer type MC1/2-XAB
 - 2) Clip plate type MC2-XC75

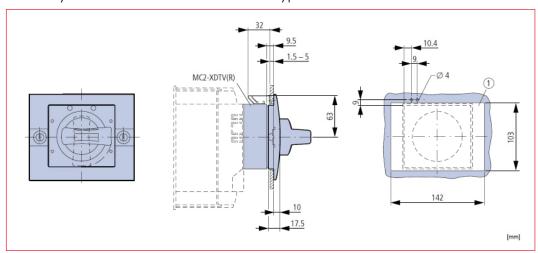


- Dimensions MC2 Accessories
- Door sealing frame type MC2-XBR



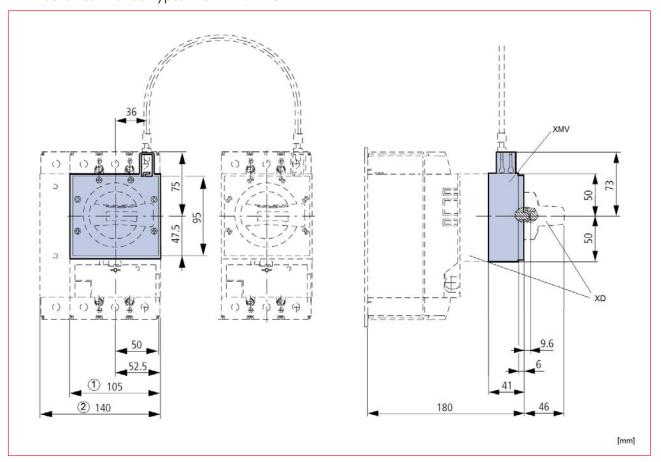
1) Mounting aperture

Rotary handle on switch with door interlock type MC2-XTVD



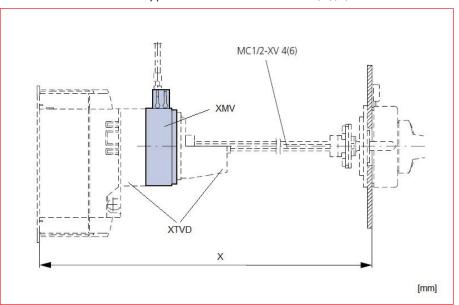
1) Mounting aperture

■ Mechanical interlock types MC2-XMV+MC2-XD



1) 3-pole 2) 4-pole

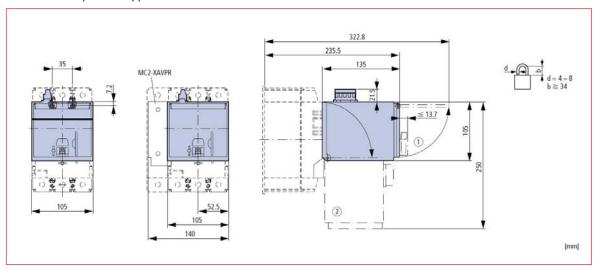
■ Mechanical interlock types MC2-XMV+MC2-XTVD(V)(R)



Туре	x (mm)
MC1/2-XV4	280 – 400
MC1/2-XV6	400 – 600

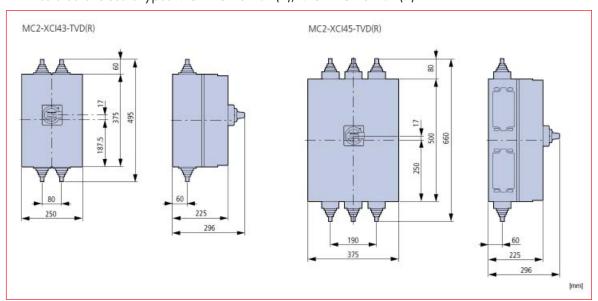


- Dimensions MC2 Accessories
- Remote operator type MC2-XR...

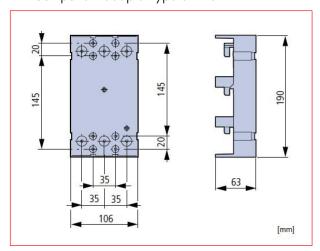


- 1) max. 3 padlocks
- 2) Remote operator, folded

■ Insulated enclosure types MC2-XCI43-TVD(R), MC2-XCI45-TVD(R)

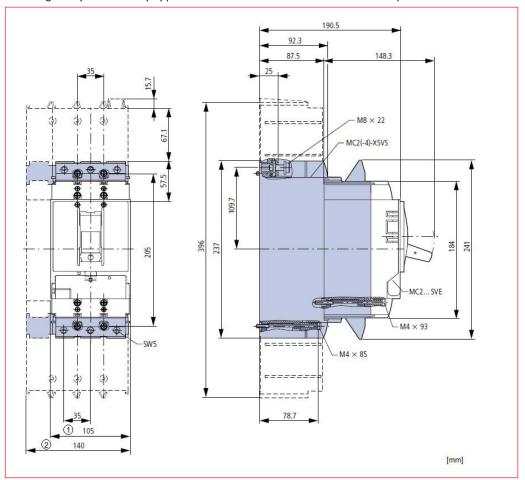


Component adapter type 32140

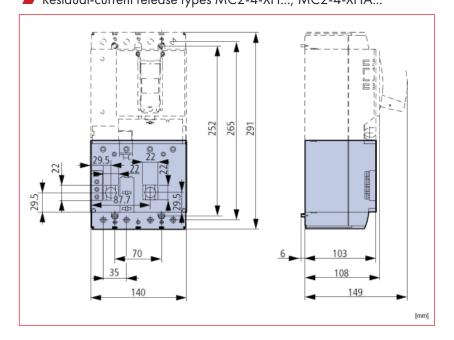




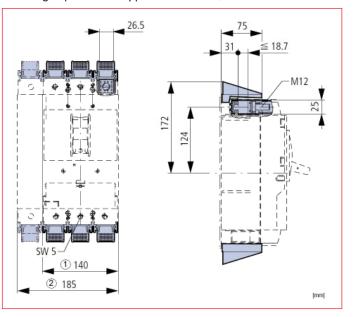
- Dimensions MC2 Accessories
- Plug-in style assembly types MC2-XSV, MC2-4-XSV Base complete with module



- 1) 3-pole 2) 4-pole
- Residual-current release types MC2-4-XFI..., MC2-4-XFIA...

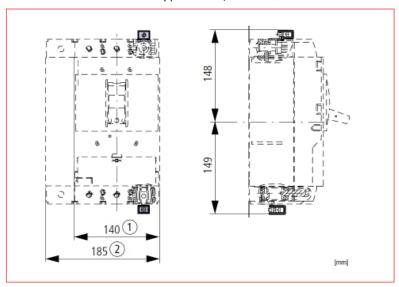


- Dimensions MC3 Accessories
- Box terminal types MC3-XKC, MC3-4-XKC / IP2X Finger protection types MC3-XIPK, MC3-4-XIPK



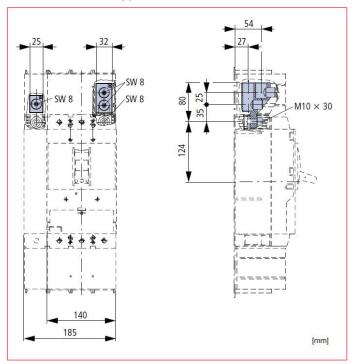
- 1) 3-pole
- 2) 4-pole

■ Control circuit terminal types MC3/4-XSTS, MC-XSTK

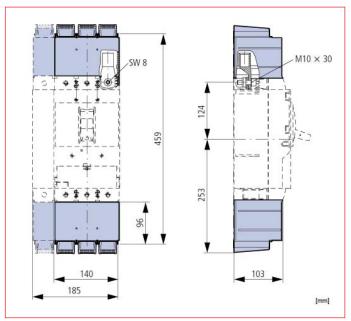


- 1) 3-pole
- 2) 4-pole

- Dimensions MC3 Accessories
- Tunnel terminal types MC3-XKA1(2), MC3-4-XKA1(2)

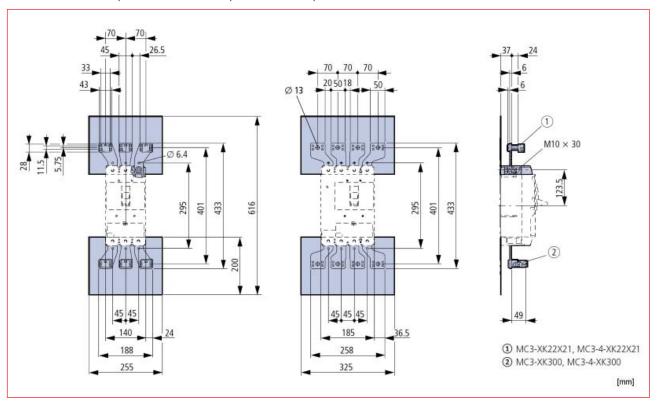


- 1) 3-pole 2) 4-pole
- Cover plate type MC3(-4)-XKSA/ cable lug type MC3-XKS185 / IP2X finger protection for Cover plate type MC3(-4)-XIPA

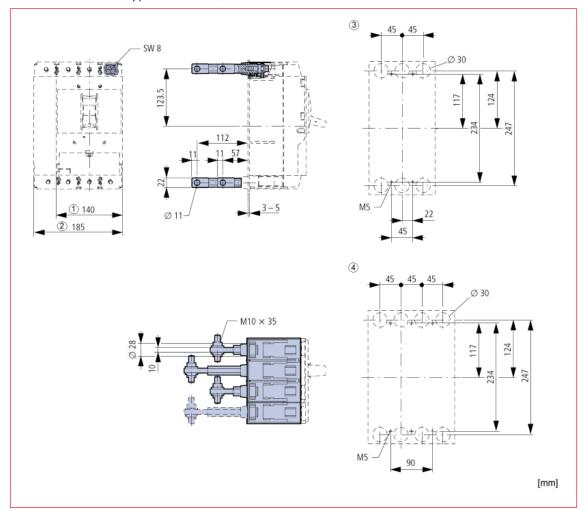


- 1) 3-pole
- 2) 4-pole

- Dimensions MC3 Accessories
- Connection width extension types MC3-XKV70, MC3-4-XKV70 / Connection terminals types MC3-XK22X21, MC3-4-XK22X21, MC3-XK300, MC3-4-XK300

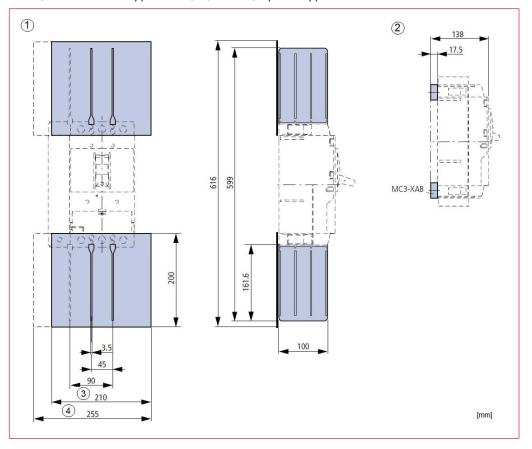


Rear connection types MC3-XKR, MC3-4-XKR



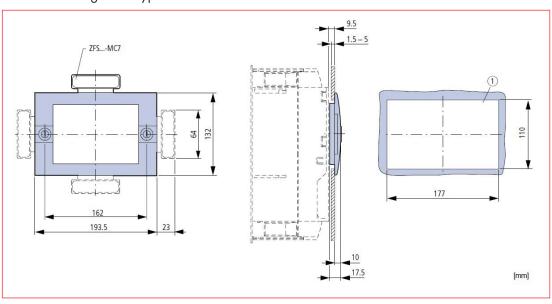
- 1) 3-pole 2) 4-pole
- 3) Outbreaks in the mounting plate 3-pole version
- 4) Outbreaks in the mounting plate 4-pole version

- Dimensions MC3 Accessories
- 1) Phase isolator type MC3(-4)-XKP, 2) Spacer type MC3-XAB



- 3) 3-pole
- 4) 4-pole

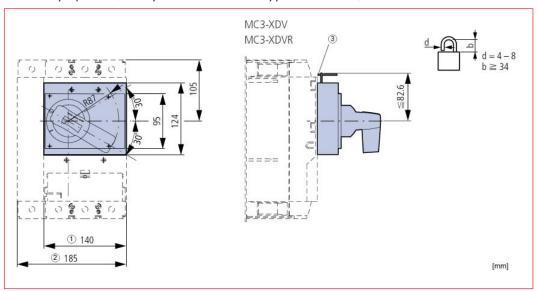
Door sealing frame type MC3-XBR



1) Mounting aperture

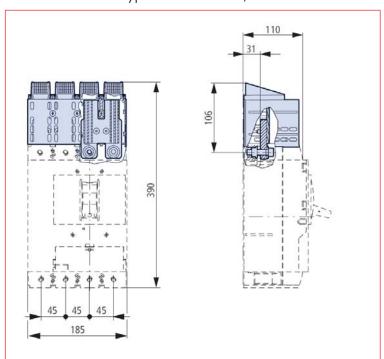


- Dimensions MC3 Accessories
- Rotary operator, rotary handle on switch, types MC3-XDV, MC3-XDVR

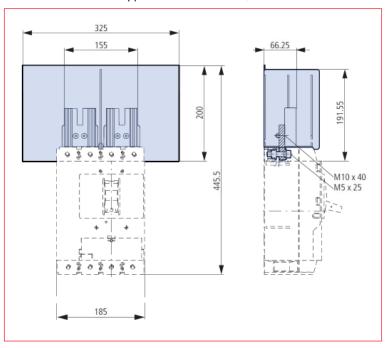


- 1) 3-pole
- 2) 4-pole 3) max. 3 padlocks

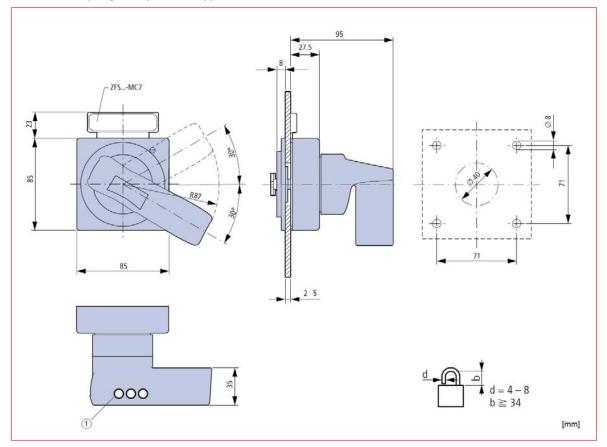
Serial connector types MC3-4-XKV2P, MC3-4-XKV2P-K



- Dimensions MC3 Accessories
- Serial connector types MC3-4-XKVI2P, MC3-4-XKVI2P-K



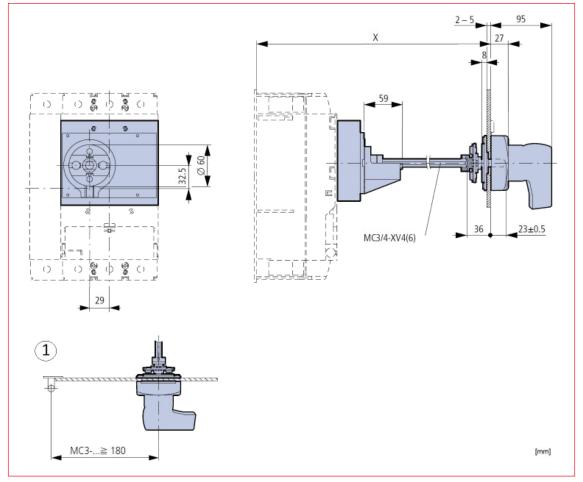
■ Door coupling rotary handle type MC3-XTVD(V)(R)...



1) max. 3 padlocks



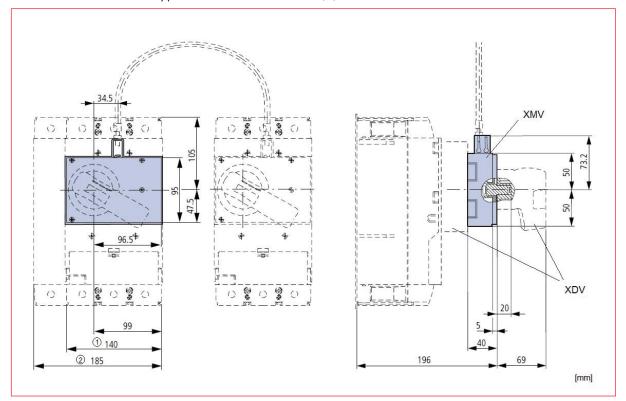
- Dimensions MC3 Accessories
- Door coupling rotary handle with extension shaft, types MC3-XTVD(V)(R), MC3/4-XV4(6)



Туре	x
MC3/4-XV4	270 – 400
MC3/4-XV6	400 – 600

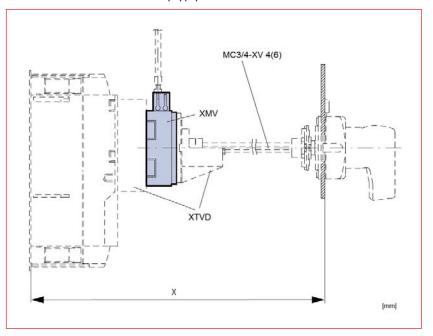
¹⁾ Minimum distance, door coupling rotary handle and door pivot point

- Dimensions MC3 Accessories
- Mechanical interlock types MC3-XMV+MC3-XDV(R)



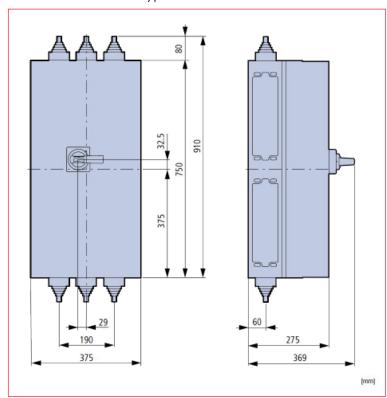
- 1) 3-pole
- 2) 4-pole

- Dimensions MC3 Accessories
- Mechanical interlock with door coupling rotary handle types MC3-XMV+MC3-XTVD(V)(R)

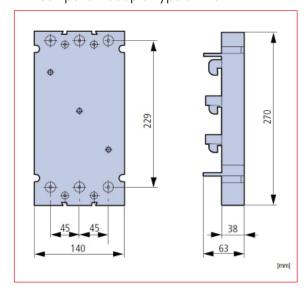


Туре	x (mm)
MC3/4-XV4	305 – 400
MC3/4-XV6	400 – 600

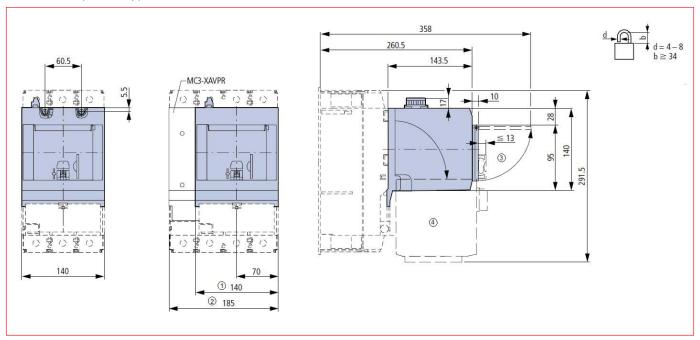
Insulated enclosure type MC3-XCI48-TVD



Component adapter type 32170

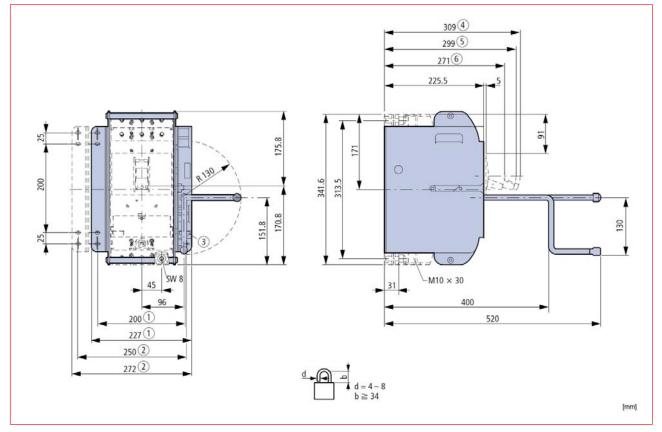


Remote operator type MC3-XR...



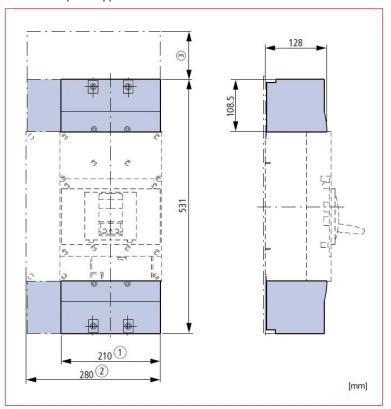
- 1) 3-pole 2) 4-pole
- 3) max. 3 padlocks
- 4) Remote operator, folded

- Dimensions MC3 Accessories
- Withdrawable unit with control circuit plug unit type MC3-XR



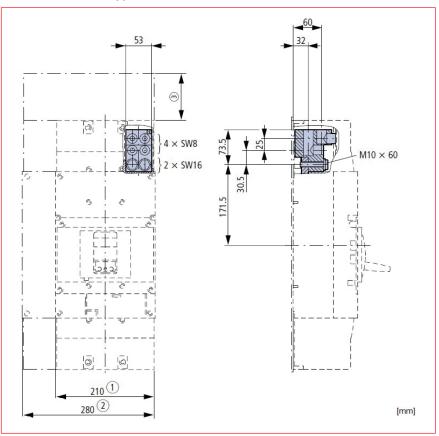
- 1) 3-pole 2) 4-pole
- 3) max. 3 padlocks
- 4) extended
- 5) test
- 6) retracted

Cover plate types MC4-XKSA, MC4-4-XKSA



- 1) 3-pole
- 2) 4-pole
 3) Clearance to conductive parts ≥ 100mm to 690V; ≥ 200mm at 1000V

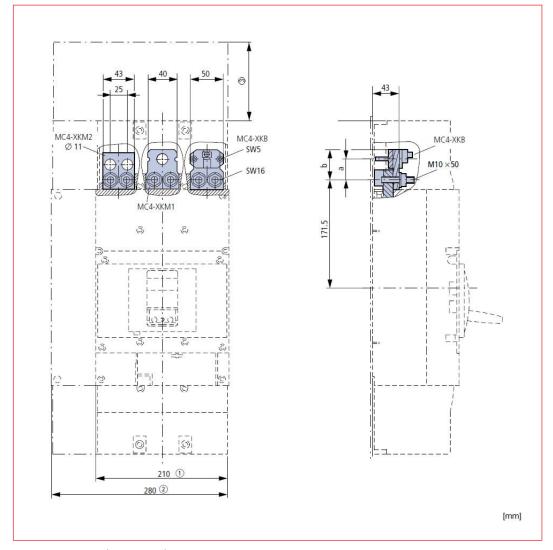
■ Tunnel terminal types MC4-XKA, MC4-4-XKA



- 1) 3-pole
- 2) 4-pole
- 3) Clearance to conductive parts ≥ 100mm to 690V; ≥ 200mm at 1000V



- Dimensions MC4 Accessories
- Screw connection module plate 1 bore types MC4-XKM1, MC4-4-XKM1, bore types MC4-XKM2, MC4-4-XKM2 / ribbon cable types MC4-XKB, MC4-4-XKB



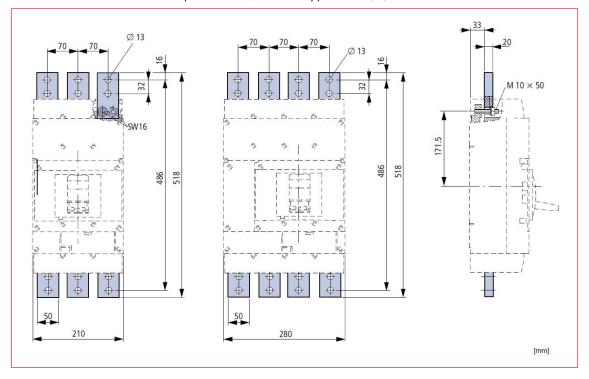
Туре	а	b
MC4(-4)-XKM1	36	47
MC4(-4)-XKM2	32	40
MC4(-4)-XKB	_	47

^{1) 3-}pole

^{2) 4-}pole

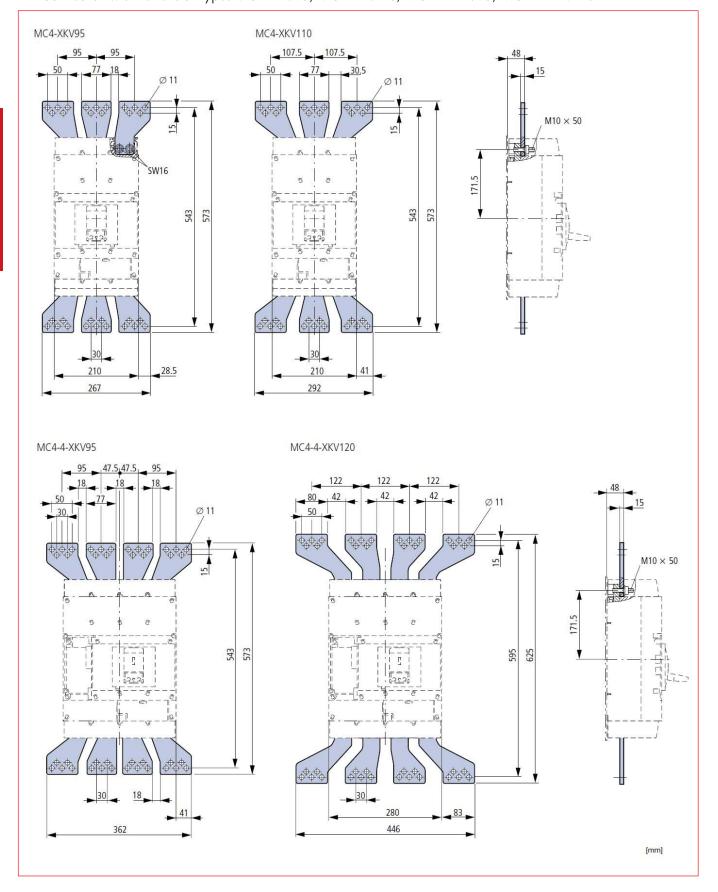
³⁾ Clearance to conductive parts ≥ 100mm to 690V; ≥ 200mm at 1000V

- Dimensions MC4 Accessories
- Screw connection module plate 2 bore, vertical type MC4-(4)-XKM2S-1600

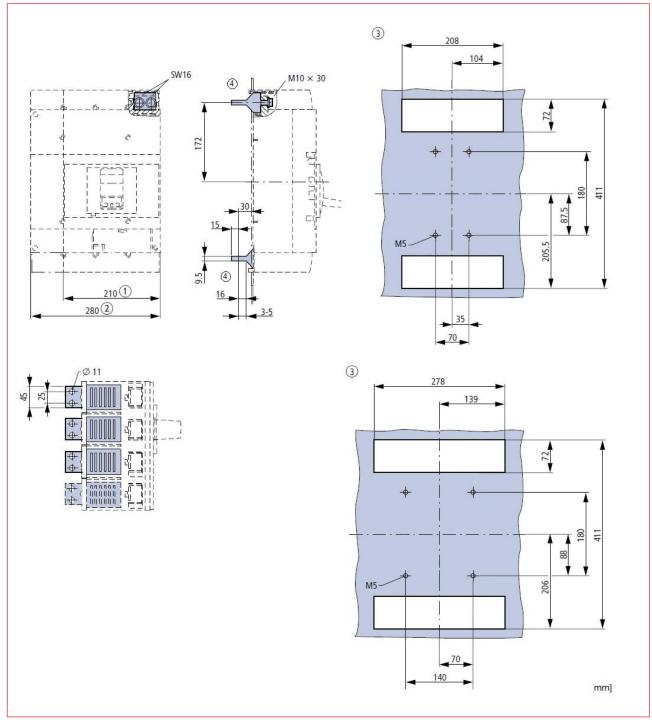




Connection width extension types MC4-XKV95, MC4-XKV110, MC4-4-XKV95, MC4-4-XKV120



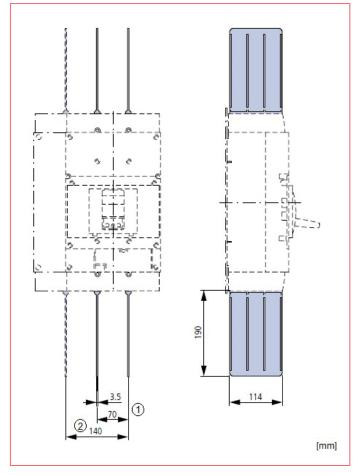
Rear connection types MC4-XKR, MC4-4-XKR



- 1) 3-pole

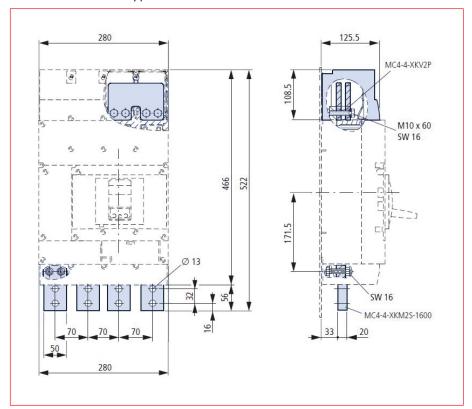
- 3) Layout of mounting plate
 4) Rear-side connection also possible with 90° rotation (vertical)

- Dimensions MC4 Accessories
- Phase isolator types MC4-XKP, MC4-4-XKP

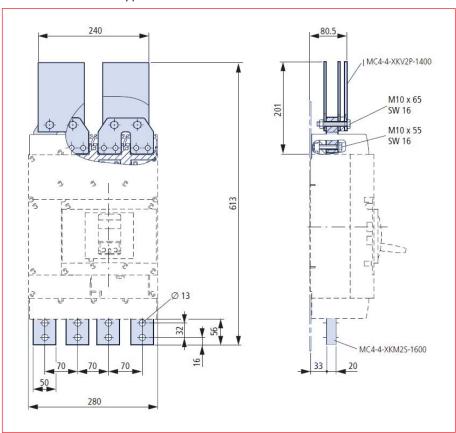


- 1) 3-pole 2) 4-pole

Serial connector type MC4-4-XKV2P

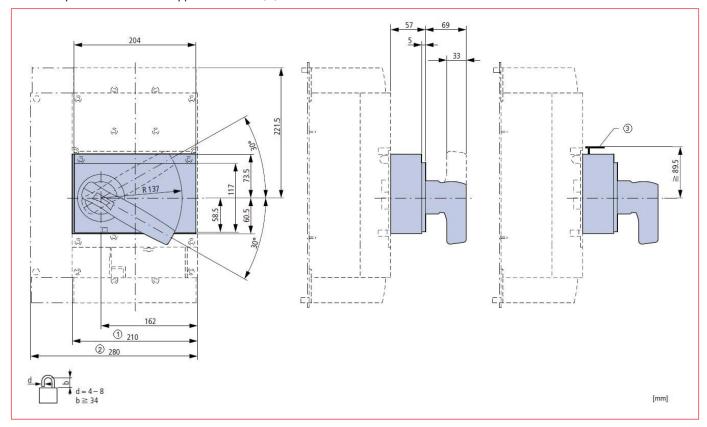


Serial connector type MC4-4-XKV2P-1400



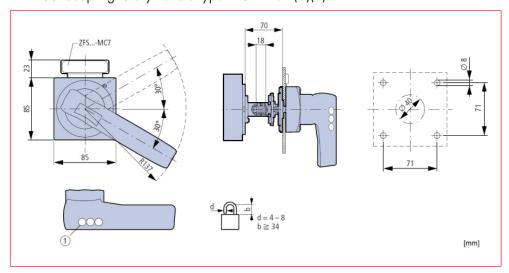


- Dimensions MC4 Accessories
- Rotary handle on switch type MC4-XDV(R)



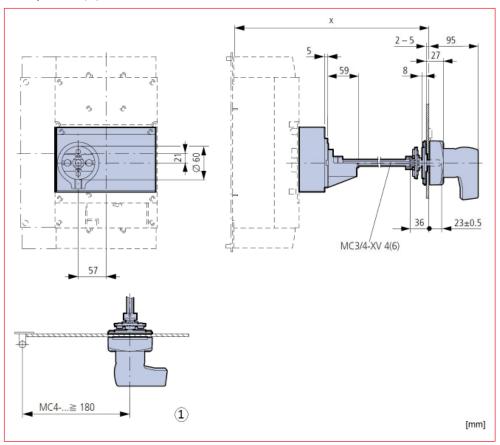
- 1) 3-pole 2) 4-pole 3) max. 3 padlocks

■ Door coupling rotary handle type MC4-XTVD(V)(R)...



1) max. 3 padlocks

Door coupling rotary handle with extension shaft, types MC4-XTVD(V)(R), MC3/4-XV4(6)

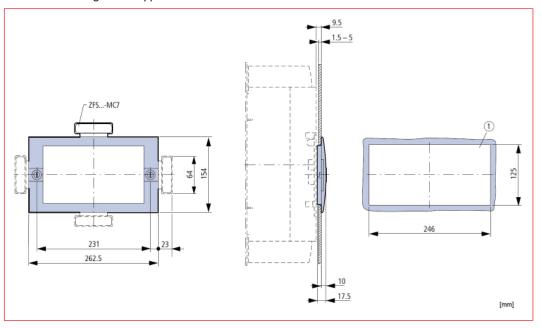


Туре	x (mm)
MC3/4-XV4	335 – 400
MC3/4-XV6	400 – 600

¹⁾ Minimum distance, door coupling rotary handle and door pivot point

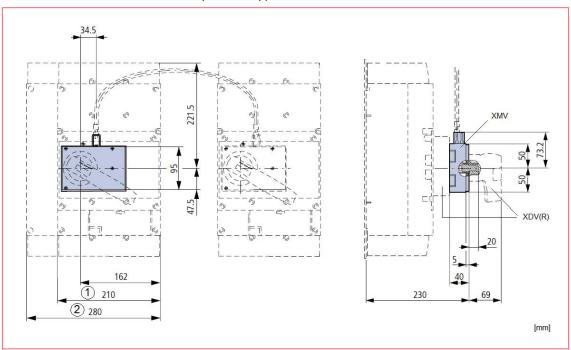


- Dimensions MC4 Accessories
- Door sealing frame type MC4-XBR



1) Mounting aperture

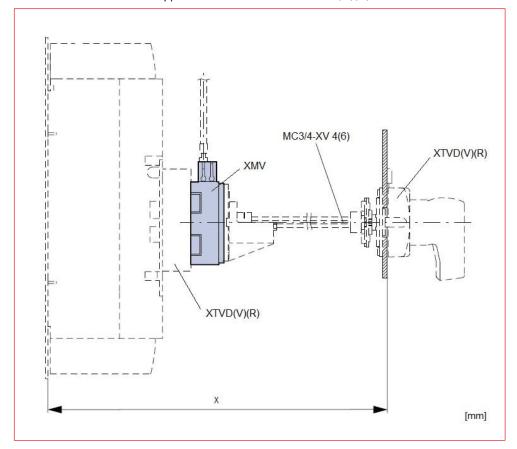
■ Mechanical interlock with rotary handle types MC4-XMV+MC4-XTVD(V)®



- 1) 3-pole 2) 4-pole



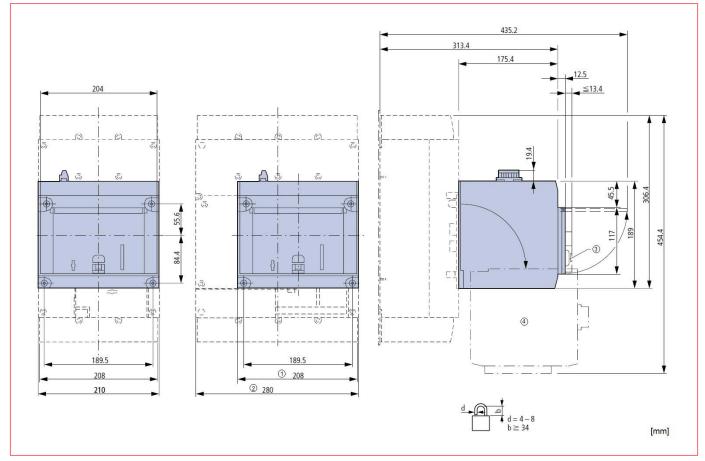
Mechanical interlock types MC4-XMV + MC4-XTVD(V)(R)



Туре	x (mm)
MC3/4-XV4	335 – 400
MC3/4-XV6	400 – 600

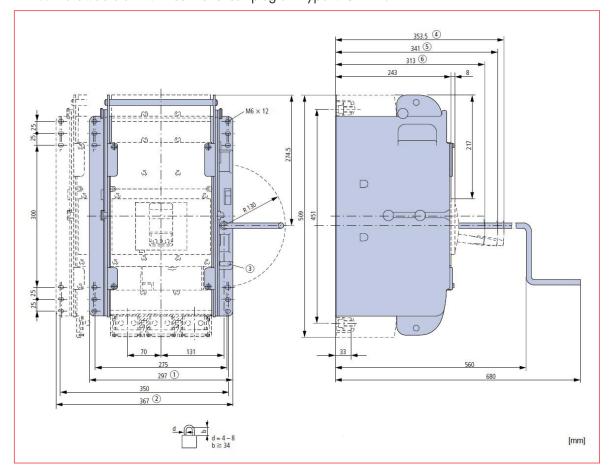


- Dimensions MC4 Accessories
- Remote operator type MC4-XR...



- 1) 3-pole 2) 4-pole
- 3) max. 3 padlocks 4) Remote operator, folded

■ Withdrawable unit with control circuit plug unit type MC4-XAV



1) 3-pole

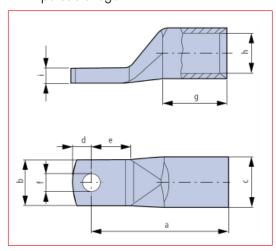
4) extended

2) 4-pole 4) max. 3 padlocks

5) test 6) retracted

Installation notes, project planning MC

Pipe cable luge



 $To press in the cable lugs, the K22, HK60/22 \ or \ EK22 \ pressing tool \ produced \ by \ Klauke \ is \ required \ with \ the \ following \ inserts:$

R22/95 for 95mm²

 $R22/120 \text{ for } 120 \text{mm}^2$

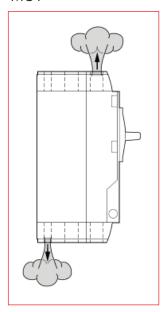
R22/150 for 150mm²

R22/185 for 185mm²

R22/240 for 240mm²

Cable lug Types	for use in	Nominal cross- section	Terminal bolts	Dimensi	ons in mr	n						
		mm ²	Ø	а	b	с	d	е	f	g	h	i
MC2-XKS95	MC2	95	M8	53+2	23±0,5	18±0,2	10±1	19	8,5	25	13,5	4,4
MC2-XKS 120	MC2	120	M8	56+2	23±0,5	19,5±0,2	10±1	19	8,5	26	15	4,4
MC2-XKS150	MC2	150	M8	61+2	23±0,5	21±0,2	10±1	19	8,5	30	16,5	4,4
MC2-XKS185	MC2	185	M8	65±1,5	22±1	24±0,3	9 +1 -0,5	19 ^{+2,5} _{-0,5}	8,5 ^{+0,05} _{-0,1}	30±2	19±0,4	7
MC3-XKS185	MC3, MC4	185	M10	65	24,5	24	11,5	18	10,5	30	19	7,0±0,8
MC3-XKS240	MC3, MC4	240	M10	72	31	26	11,5	19	10,5	35	21	5,0±0,8

Direction of blow-out for MC1, MC2, MC3, MC4

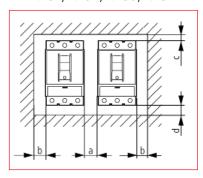


	Top front	Bottom
	front	rear
MC1	Х	-
MC2 1)	Х	X
MC3	Х	X
MC4	X	-

1) MC2B-A... same as MC1

Installation notes, project planning MC

Minimum clearances for MC1, MC2, MC3, MC4



Between two switches mounted side-by-side

Minimum clearance a in mm

	MC1	MC2	MC3	MC4
MC1	0	5	5	15
MC2	5	5	5	15
MC3	5	5	5	15
MC4	15	15	15	15

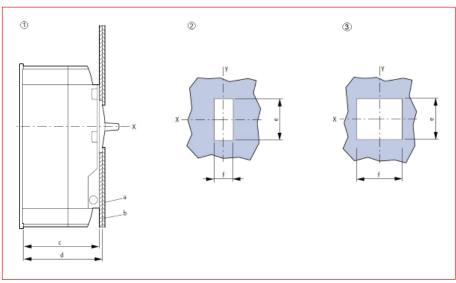
Between switches and other parts

Mnimum clearance a in mm

	b		(C	d		
	≤690V	1000V	≥690V	1000V	≥690V	1000V	
MC1	0	-	60	-	0	-	
MC2 1)	5	5	35	35	35	35	
MC3	5	5	60	60	60	60	
MC4	15	15	100	200	0	0	

1) M2B-A... C=60mm, d=0mm

Auxiliary contacts, trip-indicating contacts for MC1, MC2, MC3, MC4



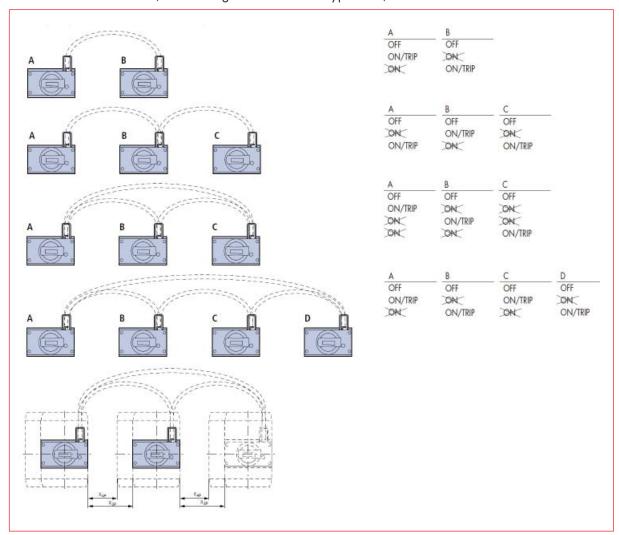
- 1) Cut-outs on front
- 2) Cutout a Toggle lever
- 3) Cutout b Rotary handle, remote operator

	Clearance from the mounting plate and door cutout		Cute	out a	Cutout b			
	c d		е	f	е	f		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
MC1	68.0	73.0	40	23	46	91		
MC2	103.0	108.0	79	36	96	101		
мсз	120.5	125.5	79	36	96	136		
MC4	138.0	146.0	101	105	118	204		



Installation notes, project planning MC

Possible combinations, interlocking circuit variations types MC, MC...-XBZ-...



Max. switch clearance for MC-XBZ225, MC-XBZ600, MC-XBZ1000

 X_{3P} = Switch clearance, 3-pole X_{4P} = Switch clearance, 4-pole

MC-XBZ225		Right	ght switch							
Max. switch clearance		M	MC1		MC2		MC3		MC4	
		X _{3P}	X _{4P}							
Left switch		[mm]								
MC1	3/4-pole	135	105	120	85	135	90	125	80	
MC2	3/4-pole	135	105	120	85	135	90	125	80	
MC3	3/4-pole	90	75	75	35	85	40	80	45	
MC4	3/4-pole	50	35	40	15	25	_	15	_	

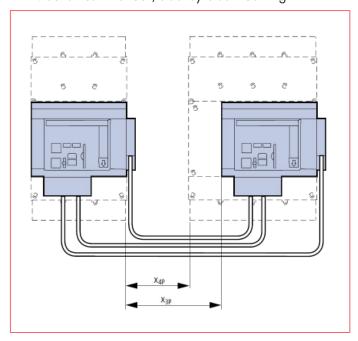
MC-XBZ600							Right switch			
Max. switch clearance		MC1		MC2		MC3		MC4		
		X _{3P}	X _{4P}	X _{3P}	X _{4P}	X _{3P}	X_{4P}	X _{3P}	X _{4P}	
Left switch		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
MC1	3/4-pole	510	480	495	460	510	465	475	405	
MC2	3/4-pole	510	480	495	460	510	465	475	405	
MC3	3/4-pole	460	430	450	410	460	415	460	390	
MC4	3/4-pole	400	370	380	340	400	375	390	320	

MC-XBZ1000							Right switch			
Max. switch clearance		MC1		MC2		MC3		MC4		
		X _{3P}	X _{4P}							
Left switch		[mm]	[mm]	[mm]	[mm]	mm	mm	mm	mm	
MC1	3/4-pole	910	880	895	860	910	865	865	<i>7</i> 95	
MC2	3/4-pole	910	880	895	860	910	865	865	<i>7</i> 95	
MC3	3/4-pole	820	790	850	810	860	815	860	790	
MC4	3/4-pole	<i>7</i> 50	720	<i>7</i> 30	700	800	775	790	720	



Installation notes, project planning MC

Mechanical interlock, side-by-side mounting



Mechanical interlock XMVR and XMVRL

 X_{3P} = Switch clearance, 3-pole

 X_{4P} = Switch clearance, 4-pole

Mechanical interlock XMVR (Side-by-side mounting)

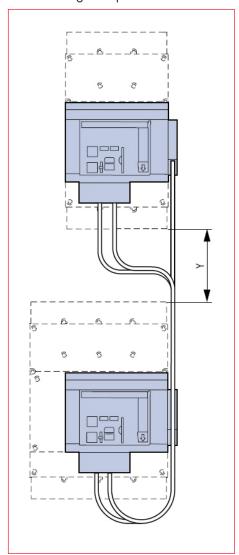
MCXMVR	2			Right switch							
Max. switch	clearance	M	C2	M	C3	MC4					
		X _{3P}	X _{4P}	X _{3P}	X _{4P}	X _{3P}	X _{4P}				
Left switch		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
MC2	3/4-pole	130	95	95	50	-	-				
МС3	3/4-pole	-	-	135	90	155	85				
MC4	3/4-pole	-	-	-	-	120	50				

Mechanical interlock XMVRL (Mounting in adjacent switch cabinet sections)

MCXMVRI	L			Right switch							
Max. switch	n clearance	M	C2	M	C3	MC4					
		X _{3P}	X _{4P}	X _{3P}	X _{4P}	X _{3P}	X _{4P}				
Left switch		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
MC2	3/4-pole	350	315	420	385	-	-				
МС3	3/4-pole	-	-	400	365	460	390				
MC4	3/4-pole	_	-	-	-	420	350				

X = Max. switch clearance

- Installation notes, project planning MC
- Mechanical interlock, mounting on top of one another



Mechanical interlock XMVRL (mounting on top of one another)

Mechanical interlock XMVRL (mounting on top of one another)

MCXM\	/RL	Switch top		
		MC2	MC3	MC4
		3/4-pole	3/4-pole	3/4-pole
Max. swit	tch clearance	Y	Y	Y
Bottom sw	ritch	mm	mm	mm
MC2	3/4-pole	220	225	-
МС3	3/4-pole	-	220	230
MC4	3/4-pole	-	-	230
3.6				

Y = Max. switch clearance



■ MC, BM-B(C), BE5/6



Incoming circuit breaker

Outgoing circuit breaker

Discrimination 415VAC

Between circuit breakers enables faulty system sections to be shut down separately.

There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker trips. System sections 3 and 4 remain operational.

- 1	Incoming	circuit	breaker	·(S1)
-----	----------	---------	---------	------	---

					٨	лС1A							-	MC2A				
	I _{cu}	[kA]			25(3	6)(50)(1	00)						25(3	6)(50)(1	50)			
	- In	[A]	2040	50	63	80	100	125	160	2040	50	63	80	100	125	160	200	250
Outgoing circuit breaker (S2)	In[A]	I _{cυ} (415V)		Discrimin	ation lim	it Is [kA]	for coo	rdination	betwee	en S2 and	S1, over	load- aı	nd short-	circuit re	leases se	et to max	x. value	
	[A]	[kA]																
BM-B(C)	0.5	15	T	T	Т	T	Т	T	T	T	T	T	T	Т	T	T	T	T
	1	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2	15	2	T	T	T	Т	Т	T	3	T	T	T	T	Т	T	T	T
	3	15	1.2	2	3	3	10	T	T	1.5	1.5	3	5	T	T	T	T	T
	4	15	1.2	2	3	3	8	T	T	1.2	1.5	3	4	T	T	T	T	T
	6	15	1.2	2	2,5	3	5	10	10	1.2	1.5	2,5	3	T	T	T	T	T
	10	15	1.2	1.5	2	2	4	10	10	1	1.5	2,5	3	10	10	10	10	10
	13	15	1	1.5	2	2	4	10	10	1	1.2	2	3	10	10	10	10	10
	16	15	1	1.2	1.5	2	3	8	8	1	1.2	1.5	2,5	10	10	10	10	10
	20	15	0.8	1.2	1.5	1.5	3	8	8	1	1.2	1.5	2,5	10	10	10	10	10
	25	15	0.7	1.2	1.5	1.5	3	7	7	0.8	1	1.5	2	10	10	10	10	10
	32	15	-	1.2	1	1.5	2	6	6	_	1	1.5	2	8	8	8	8	10
	40	15	-	-	1	1.5	2	5	5	_	-	1.2	1.5	7	7	7	7	10
	50	15	-	-	-	1.2	1.5	4	4	_	-	-	1.5	6	6	6	6	10
	63	15	_	-	_	-	1.5	3	3	_	_	-	-	6	6	6	6	10
BE5	0.16	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.25	100	T	T	T	T	T	Т	T	T	T	T	T	T	Т	T	T	T
	0.4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.63	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2.5	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6.3	100	4	5	5	T	T	T	T	2	3	4	5	T	T	T	T	T
	10	100	3	4	5	6	25	T	T	1.5	2.5	4	4	T	T	T	T	T
	12	50	3	4	5	6	25	T	T	1.5	2.5	4	4	T	T	T	T	T
	16	50	1.5	1.5	2	3	5	7	T	1	1.6	2	2.5	T	T	T	T	T
	20	50	0.8	1.5	1.5	2	3	5	T	0.8	1.2	1.5	2	T	T	T	T	T
	25	50	-	1	1.5	1.5	2.5	4	T	-	1	1.5	2	10	T	T	T	T
	32	50	-	_	1	1	2	3.5	T	-	-	1	1.5	8	40	T	T	T
BE6	16	100	0.5	0.8	0.8	0.8	2	5	5	0.5	0.8	0.8	0.8	2	5	5	5	5
	25	100	-	0.7	0.8	0.8	1.5	5	5	-	0.7	0.8	0.8	1.5	5	5	5	5
	32	50	-	-	0.8	0.8	1.5	4	4	-	-	0.8	0.8	1.5	4	4	4	4
	40	50	-	-	-	0.8	1.5	3	3	-	-	-	0.8	1.5	3	3	3	3
	50	50	-	-	-	-	1	2.5	2.5	-	-	-	-	1	2.5	2.5	2.5	2.5
	58	50	-	-	-	-	-	2.5	2.5	-	-	-	-	-	2.5	2.5	2.5	2.5
	63	50	_	-	-	-	-	2	2	_	-	-	-	-	2	2	2	2
Note: T - Total discriminat	ion																	



Discrimination MC

■ MC, BM-B(C), BE5/6



Incoming circuit breaker

Outgoing circuit breaker

Discrimination 415VAC

Between circuit breakers enables faulty system sections to be shut down separately.

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Incoming circuit breaker (S1)

				۸C2V			MC3AE			MC3VE MC4AE				MC4VE							
	Icu	[kA]		50(150)		50(150)		50(150)			50(85)					50(85)		
	l,	[A]	100	160	250	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Outgoing circuit breaker (S2)	I _n [A]	Ι _{ου} (415V) [kA]	Discrim	nination	limit Is	[kA] for	r coordi	nation l	oetwee	n S2 an	nd S1, c	verload	d- and s	short-cir	cuit rele	ease se	to max	imum v	alue		
BM-B(C)	0.5	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	3	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	15	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	13	15	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	15	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	15	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	15	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	15	8	8	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	40	15	7	7	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	50	15	6	6	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	63	15	6	6	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
BE5	0.16	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.25	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.63	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2.5	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6.3	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т	T	T	T
	12	50	T	Т	T	T	Т	T	T	T	T	T	Т	T	T	T	T	Т	T	T	T
	16	50	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	50	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	50	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т	T	T	T
	32	50	8	T	T	T	Т	T	T	T	T	T	T	T	T	T	Т	Т	T	T	T
BE6	16	100	5	5	6	6	16	45	6	16	45	45	T	T	T	T	45	T	T	T	T
	25	100	5	5	3.3	3.3	10	25	3.3	10	25	25	42	T	T	T	25	42	T	T	T
	32	50	4	4	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	40	50	3	3	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	50	50	2.5	2.5	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	58	50	2.5	2.5	2.5	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T
	63	50	2	2	2.5	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T

Note: T - Total discrimination









Incoming circuit breaker

Outgoing circuit breaker

Discrimination 415VAC

Between circuit breakers enables faulty system sections to be shut down separately.

There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker trips. System sections 3 and 4 remain operational.

Incoming circuit breaker (\$1)

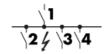
				MC1A							MC2A							
	I _{cu} (kA)			25(36)(50)(100)										6)(50)(1	150)			
	I _n (A)		2040	50	63	80	100	125	160	2040	50	63	80	100	125	160	200	250
Outgoing circuit breaker (\$2)	1	Ι_ω (415V) [kA]	Discrimir value.	nation li	imit Is (k	cA). Set	the ove	rload- d	and sho	rt-circuit r	elease	of the in	coming	circuit	breake	to the r	naximu	m
MC1A	2040	25100	-	-	0.5	0.7	0.8	1.5	1.5	-	-	0.6	0.8	1.5	1.5	1.5	2	3
	50	25100	-	-	-	0.6	0.8	1.5	1.5	-	-	-	0.8	1.5	1.5	1.5	2	3
	63	25100	-	-	-	-	0.8	1.5	1.5	-	-	-	-	1.5	1.5	1.5	2	3
	80	25100	-	-	_	-	_	1.5	1.5	-	-	-	-	-	1.5	1.5	2	3
	100	25100	-	-	-	-	_	-	1.5	-	-	-	-	-	-	1.5	2	3
	125	25100	-	-	_	_	-	-	-	-	-	-	-	-	-	_	2	3
	160	25100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3
MC2A	2040	25150	-	_	0.5	0.6	0.8	1	1	-	-	0.5	0.6	0.8	1	1.2	1.6	2
	50	25150	-	-	-	0.6	0.8	1	1	-	-	-	0.6	0.8	1	1.2	1.6	2
	63	25150	-	-	-	-	0.8	1	1	-	-	-	-	0.8	1	1.2	1.6	2
	80	25150	-	-	-	-	-	1	1	-	-	-	-	-	1	1.2	1.6	2
	100	25150	-	-	-	-	-	-	1	-	-	-	-	-	-	1.2	1.6	2
	125	25150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	2
	160	25150	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	200	25150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC1 M	250	25150	_	-	-	_	-	- 1	1	-	_	-	_	-	- 1	1.2	1.4	2
MC1M	40 50	25(50)	_	-	-		0.8	1	1	-	-	-	-	0.8	1	1.2	1.6	2
	63	25(50) 25(50)	_	_	_	_	-	_	1	-	_	_	-	-	-	1.2	1.6	2
	80	25(50)	_	_	_	_	_	_	-	_	_	_	_	_	_	1.2	1.6	2
	100	25(50)	_	_	_	_	_	_	-	_	_	-	-	-	-	-	-	2
MC2M	20125	25(50)	_	_	_	_	_	_	-	_	_	-	_	-	-	_	_	_
MG2,-M	160	25(50)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
	200	25(50)	_	_	_	_	_	_	-	_	_	-	-	-	-	-	_	-
MC2VE	100	50150	_	_	_	_	_	_	<u> </u>	_	_	<u> </u>	-	<u> </u>	-	1.2	1.6	2
	160	50150	_	_	-	_	_	_	_	-	_	_	_	_	_	-	-	_
	250	50150	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
MC2ME	90	50150	_	_	-	_	_	_	-	-	_	-	-	-	_	1.2	1.6	2
	140	50150	-	-	_	-	_	-	-	-	-	-	-	-	-	_	-	_
	220	50150	-	_	-	-	_	-	-	-	-	-	-	-	-	-	-	-
MC3A	250	50150	_	-	-	-	-	-	-	-	-	-	-	i -	-	<u> </u>	-	-
	400	50150	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-
	630	50150	-	_	_	-	_	-	-	-	-	-	-	_	-	_	_	_
MC3VE	250	50150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	400	50150	-	_	_	-	_	-	-	-	-	-	-	_	-	_	-	_
	630	50150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC3ME	220	50150	-	-	-	-	-	-	_	_	-	-	-	-	-	_	-	-
	350	50150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	450	50150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC4AE	630	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	800	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1000	50(85)	-	-	_	-	_	-	-	-	-	-	-	-	-	_	-	_
	1250	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1600	50(85)	-	-	-	-	-	-	_	-	-	_	_	-	-	-	-	-
MC4VE	630	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	800	50(85)	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-
	1000	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1250	50(85)	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1600	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC4ME	550	50(85)	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	875	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Notes T. Total discolution	1400	50(85)	_	_	_	_	_	_	_	_	_	_	_	-	-	_	_	_

Note: T - Total discrimination









Incoming circuit breaker

Outgoing circuit breaker

Discrimination 415VAC

Between circuit breakers enables faulty system sections to be shut down separately.

There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker trips.

System sections 3 and 4 remain operational.

Incoming circuit breaker (S1)

MC2 -VF MC3 -AF

				۱C2۱	/E	I	MC3A	λE	1	и с 3V	Æ			MC4A	E				MC4V	E	
	I _{cu} [kA]		5	50(150	D)		50(150	0)		50(150))			50(85)					50(85)		
	I _n [A]		100	160	250	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Outgoing circuit	I _n	I _{cu} (415V)	Dica	rimin.	rtion	limit I	- (I-A)	Sat th		load	and ch	ort sir	auit rol	ease of	the inc	amina	airanis k	akar	to the	mavim	
breaker			valu		anon		5 (KA).	Jei III	e over	iouu-	una si	iori-cir	con rei	euse oi	me mc	oming	Circon L	neaker	io ine	maximi	UIII
(S2)	[A]	[kA]																			
MC1A	2040	25100	2	5	7.5	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
	50	25100	2	5	7.5	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
	63	25100	2	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25100	-	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25100	-	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	125 160	25100	-	5	6	6	15 15	15 15	11	20	20	T	T	T	T	T	T	T	T	T	T
MCO A	_	25100		_	6	_	_	_	11		-	_				_			_		
MC2A	2040	25150 25150	1	2	4	6	15 15	15 15	11	20	20	T	T	T	T T	T	T	T	T	T	T
	63	25150	1	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25150	<u>'</u>	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25150	 -	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	125	25150	-	-	4	6	15	15	11	20	20	T	T	T	T	T	Ť	T	T	T	T
	160	25150	-	-	4	5	10	10	10	15	15	T	T	T	T	T	T	T	T	T	T
	200	25150	-	-	<u> </u>	_	10	10	-	15	15	T	T	T	T	T	T	T	T	T	T
	250	25150	-	-	-	-	10	10	-	15	15	T	T	T	T	T	Т	T	T	Т	T
MC1M	40	25(50)	1	2	4	6	15	15	11	20	20	Т	Т	Т	Т	Т	Т	Т	Т	Т	T
	50	25(50)	-	2	4	6	15	15	11	20	20	Т	T	T	T	T	T	T	T	T	T
	63	25(50)	-	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25(50)	-	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25(50)	-	-	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
MC2M	20125	25(50)	-	-	2	6	7	10	7	10	12	20	20	50	T	T	20	20	50	T	T
	160	25(50)	_	-	-	6	7	10	7	10	12	20	20	50	T	T	20	20	50	T	T
	200	25(50)	-	-	_	_	7	10	_	10	12	20	20	50	T	T	20	20	50	T	T
MC2VE	100	50150	-	1.2	2	6	7	10	7	8	11	20	20	50	T	T	20	20	50	T	T
	160	50150	-	-	2	6	7	10	7	8	11	20	20	50	T	T	20	20	50	T	T
	250	50150	<u> </u>	-	-	-	7	10	-	8	11	20	20	50	T	T	20	20	50	T	T
MC2ME	90	50150	-	-	2	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
	140	50150	-	-	-	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
1460 4	220	50150	-	-	-	_	7	10	5	10	12	T	T	T (20)	T	T(00)	T(00)	T	T(00)	T	T(00)
MC3A	250 400	50150	-	_	-	_	5	7.5 7.5	_	10	12	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
	630	50150 50150	-	-	-	_	_	7.5	-	_	-	1(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
MC3VE	250	50150	_	-	_	_	3.5	4	_	10	12	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
MCSVE	400	50150	 -	-	 -	_	-	4	-	-	12	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
	630	50150	 -	-	-		_	_	_	_	-	-	T(80)	T(80)	T(80)	T(80)	-	T(80)	T(80)	T(80)	T(80)
MC3ME	220	50150	-	-	_	_	3.5	4	_	10	12	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
	350	50150	-	-	-	_	-	4	_	-	12	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)	T(80)
	450	50150	-	-	-	_	_	-	-	-	-	-	T(80)	T(80)	T(80)	T(80)	-	T(80)	T(80)	T(80)	T(80)
MC4AE	630	50(85)	-	-	-	_	-	-	-	_	-	-	10	15	20	20	-	10	15	20	20
	800	50(85)	-	-	-	_	_	-	_	_	_	-	-	-	20	20	-	-	-	20	20
	1000	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	20	20	-	-	-	20	20
	1250	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	20
	1600	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC4VE	630	50(85)	-	-	-	-	-	-	-	-	-	-	10	15	20	20	-	10	15	20	20
	800	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	20	20	-	-	-	20	20
	1000	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	20	20	-	-	-	20	20
	1250	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	20
	1600	50(85)	-	_	_	_	-	-	_	_	-	_	-	-	-	-	-	-	-	-	_
MC4ME	550	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	20	20	-	-	-	20	20
	875	50(85)	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	20
	1400	50(85)	_	_	_	-	-	_	_	-	_	_	-	-	-	-	_	-	_	_	_



Line protection, backup protection MC

Protection of PVC-insulated cables against thermal overload in the event of short-circuit

VDE 0100 Part 430 specifies that all cables and lines must be protected in the event of a circuit overload or short-circuit.

Overload protection is realised with MC circuit breakers using the adjustable, current-dependent, time-delayed overload release.

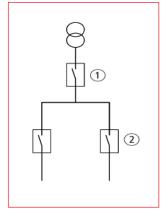
Protection in the event of a short-circuit is provided using the adjustable instantaneous releases which open the main contact in less than 25ms.

The low total disconnecting time restricts the temperature rise of the cable to a minimum.

The table indicates the minimum conductor cross-section reliably protected by circuit breakers during a short-circuit. (Operating voltage UN = 415V)

	Minimum protected cross-section mm ² Cu
MC1.(-4)20	6
MC1.(-4)25 - 160	10
MC2.(-4)20 - 250	10
MC3.(-4)250 - 630	16
MC4.(-4)630 - 1600	95

Back-up protection



Back-up protection between incoming circuit breaker MC(N)(H) and outgoing circuit breaker MC-B(N)(H)

			Incoming	circuit brea	ıker (1)									
				MC1			MC2		MC3					
				n up to 160A	4		n up to 250 <i>A</i>	4	In up to 630A					
			I _{cu} (415 V)											
Outgoing	circuit breaker	(2)	25kA	36kA	50kA	100kA	25kA	36kA	50kA	150kA	50kA	150kA		
	I _{cυ} (415 V)	I _n												
MC1B	25kA	up to 160A	25	36	50	100	25	36	50	100	50	100		
MC1N	50kA	up to 160A	-		50	100	-	-		100	50	100		
мс1н	100kA	up to 160A	-	-	-	100	-	-	-	100	-	100		
MC2B	25kA	up to 250A	25	36	50	100	25	36	50	150	50	150		
MC2N	50kA	up to 250A	-	-	50	100	-	-	50	150	50	150		
MC2H	150kA	up to 250A	-	-	-	-	-	-	-	150	-	150		
MC3N	50kA	up to 630A	-	-	-	-	-	-	-	-	50	150		
мсзн	150kA	up to 630A	_	-	-	-	-	-	-	-	-	150		

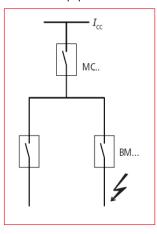
Where the prospective fault current at the point of installation of circuit breakers is very high, the standard approach is to use MC.N(H) high-performance circuit breakers. An attractively priced alternative is to fit a current-limiting high-performance circuit-breaker MC.N(H) at the point in the network upstream of standard circuit breakers MC.B(C)(N) if the switching capacity of the MC.B(C)(N) is not sufficient at this point in the network.

The table indicates which current-limiting circuit breaker MC.B(C)(N) in combination with MC.B(C)(N) can provide reliably protection at network locations with high short-circuit capacities.

The discrimination limit is determined by the response value of the non-delayed short-circuit release in the incoming circuit breaker. This is sufficient for many applications.

■ Line protection, backup protection MC

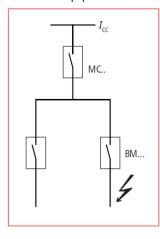
■ Back-up protection



Back-up protection between incoming circuit breaker MC2A... and outgoing circuit breaker BM-B©

Outgoing circuit breaker	Incoming circuit breaker	
BM-B(C).	MC1B-A	MC1+N(H)-A
0.5 – 16A	25kA	30kA
20 – 40A	20kA	20kA
50, 63A	15kA	15kA

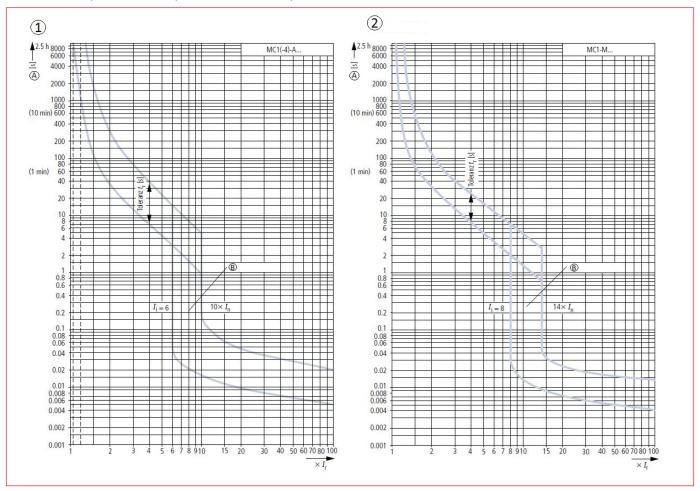
Back-up protection



Back-up protection between incoming circuit breaker MC1.A and outgoing circuit breaker BM-B©

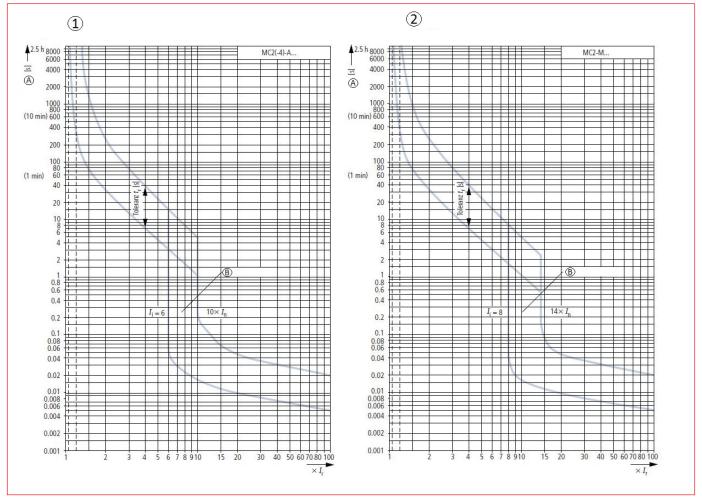
Outgoing circuit breaker	Incoming cir	cuit breaker
BM-B(C).	MC2B-A	MC2N(H)-A
0.5 – 10A	25kA	50kA
13 – 32A	25kA	30kA
40 – 63A	20kA	20kA

MC1: 1) System and line protection 2) Motor protection



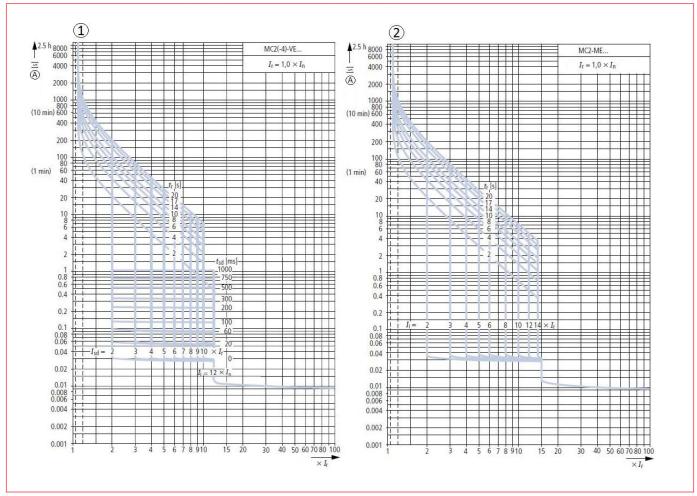
- A) Tripping time
- B) Setting range

- Tripping characteristics MC
- MC2: 1) System and line protection 2) Motor protection



- **A)** Tripping time **B)** Setting range

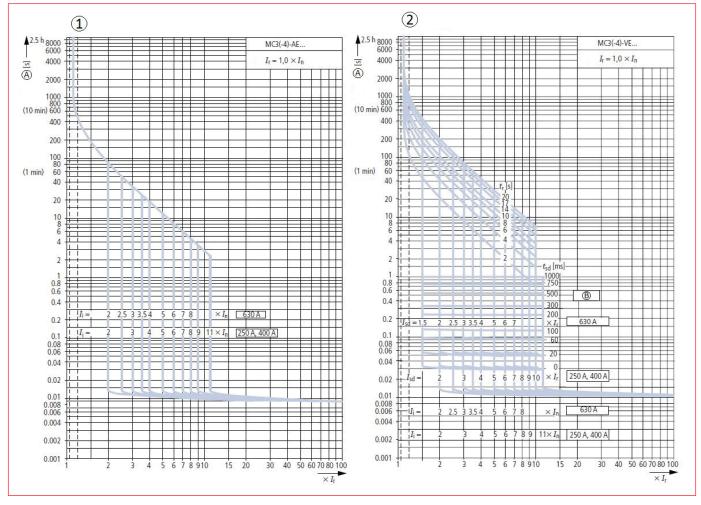
■ MC2: 1) Selective and generator protection electronic 2) Motor protection electronic



A) Tripping time



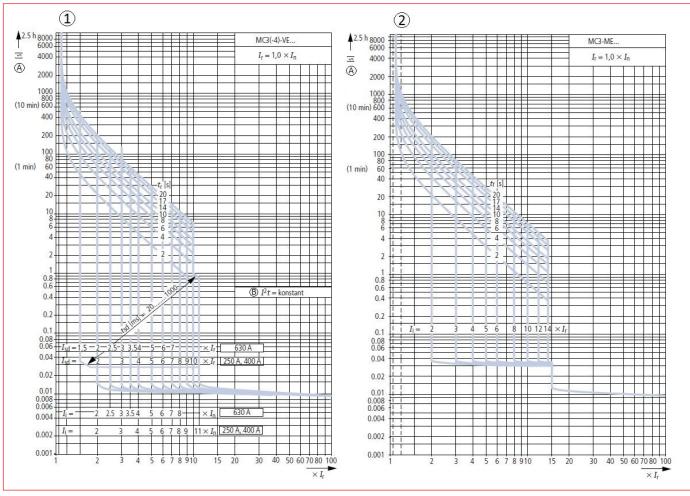
■ MC3: 1) System and line protection electronic 2) Selective and generator protection electronic without I²t



A) Tripping time

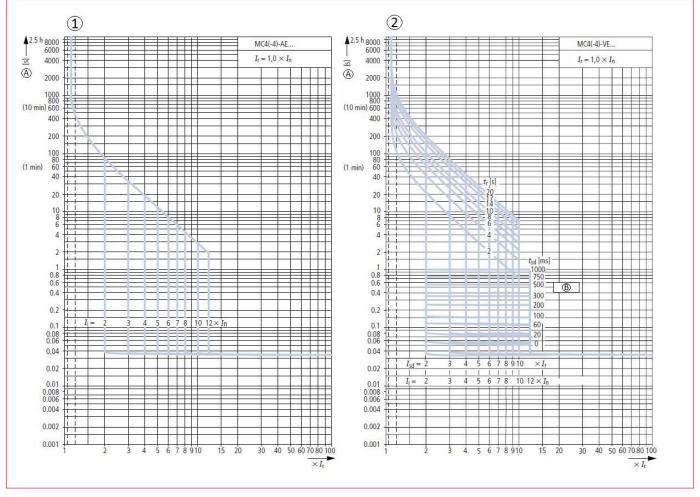
B) without function $I^2t = constant$

■ MC3: 1) Selective and generator protection electronic with I²t 2) Motor protection electronic



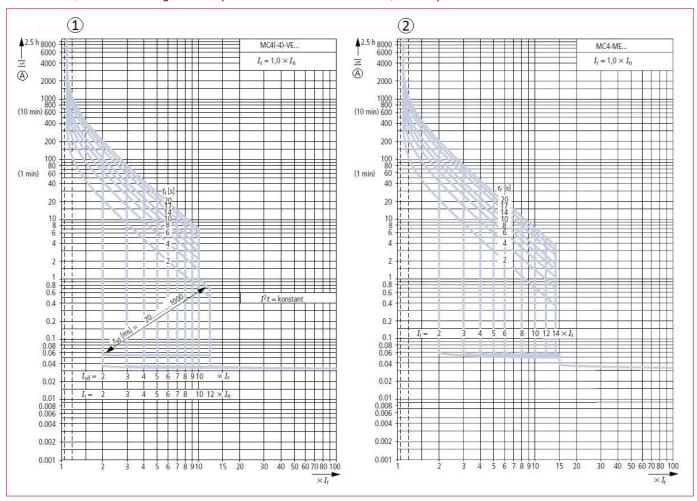
- A) Tripping time
- **B)** with function $I^2t = constant$

■ MC4: 1) System and line protection electronic 2) Selective and generator protection electronic without I²t



- **A)** Tripping time
- **B)** without function $I^2t = constant$

■ MC4: 1) Selective and generator protection electronic with I²t 2) Motor protection electronic

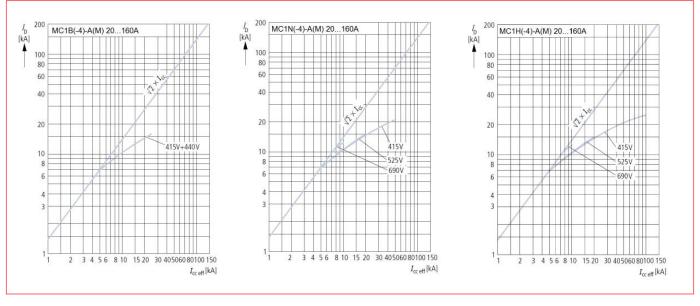


- **A)** Tripping time
- **B)** with function $I^2t = constant$

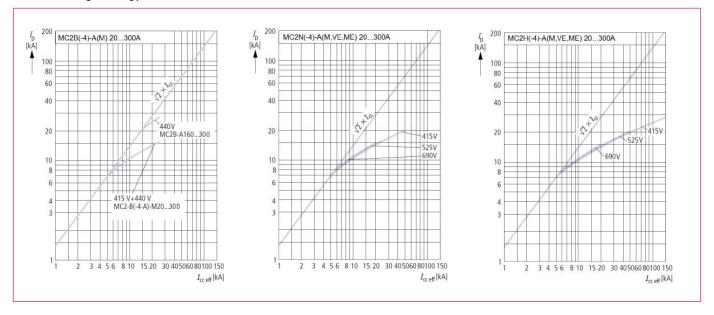


■ Let-through current & let-through energy MC

Let-through current: MC1

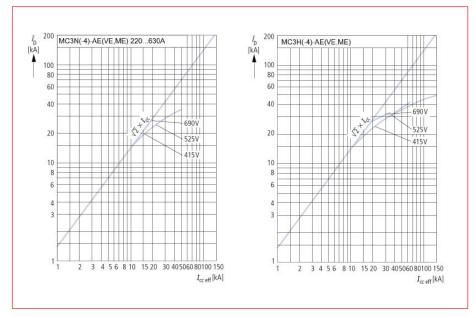


Let-through energy: MC1 - 1) Half wave

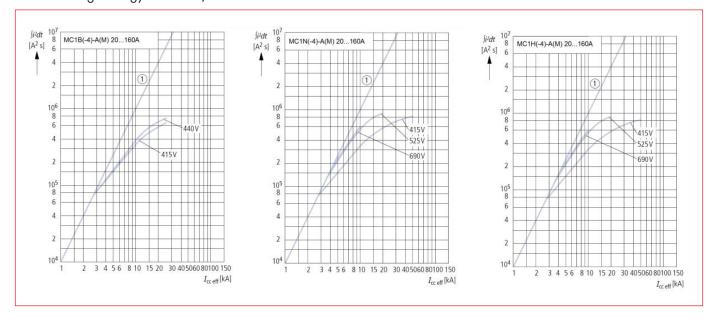


■ Let-through current & let-through energy MC

Let-through current: MC2



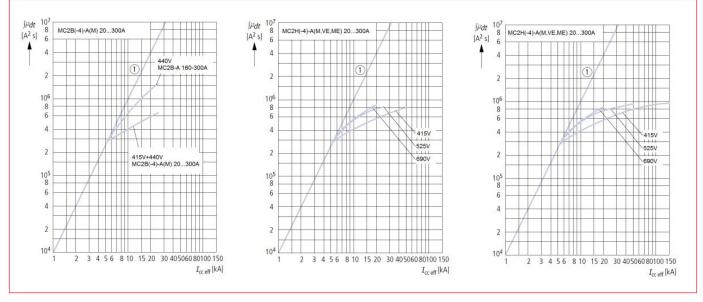
Let-through energy: MC2 - 1) Half wave



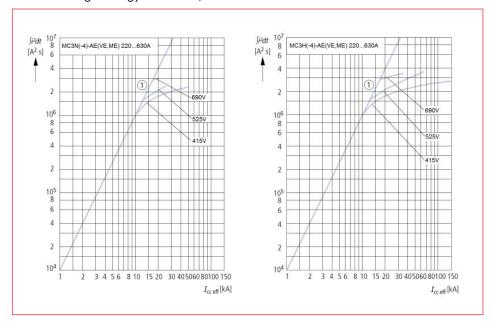


■ Let-through current & let-through energy MC

■ Let-through current: MC3



Let-through energy: MC3 - 1) Half wave





ACB MO, fix installed



MO108232

Schrack-Info

- Fixed mounted ACB in 3 sizes, 3 or 4-pole, 250A up to 6300A
- Short circuit switching capacity Icu = 55, 66, 80kA (100kA on request)
- 5 types of electronic release units ETU
- Horizontal and front side connection bars available (vertical version on request)
- Wide range of accessories
- Internet-Configurator downloadable. According this, ACB will be factory-assembled and delivered
 as complete device

ACB MO Size 1 - 3-pole



Schrack-Info

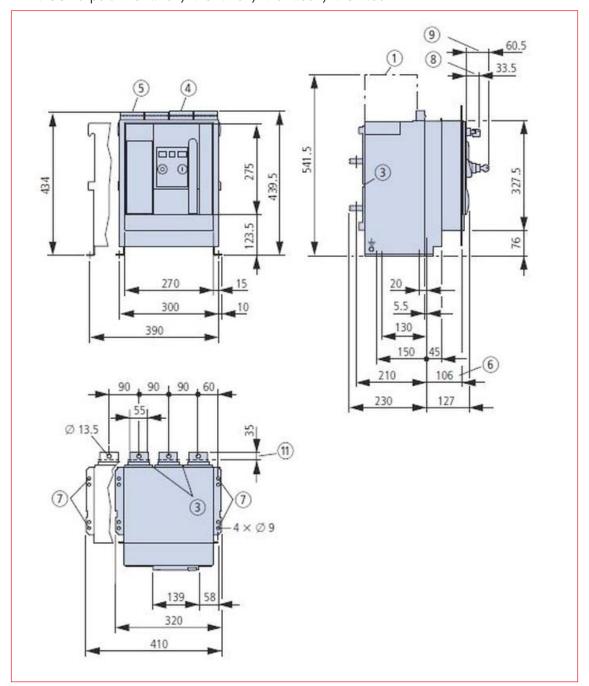
- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 2000A

MO1B	MOIN
250 - 2000A	250 - 2000A
690VAC	690VAC
55kA	66kA
42kA	50kA
55kA	66kA
42kA	50kA
-25°C to +70°C	
vertical and 30° in all directions	
IEC/EN 6094	7-2, VDE 0660
	250 - 2000A 690VAC 55kA 42kA 55kA 42kA -25°C vertical and 30



ACB MO Size 1 - 3-pole

MCCB 3-pole MO1..232/MO1..234/MO1..332/MO1..334

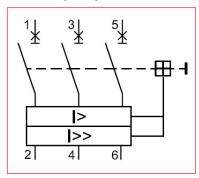


- 1) Mounting space for removing of arcing chamber covers
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 8) Interlock in OFF (optional accessory)
- 9) Key operation (optional accessory)
- 11) Connection area



ACB MO Size 1 - 3-pole

Wiring Diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
55kA		
ACB 3-pole, 55kA 800A fixed, rear side horizontal	MO1B	MO108232
ACB 3-pole, 55kA 1000A fixed, rear side horizontal	MO1B	MO110232
ACB 3-pole, 55kA, 1250A fixed, rear side horizontal	MO1B	MO112232
ACB 3-pole, 55kA, 1600A fixed, rear side horizontal	MO1B	MO116232
ACB 3-pole, 55kA, 2000A fixed, rear side horizontal	MO1B	MO120232
ACB 3-pole, 55kA 1000A fixed, front side double-bore	MO1B	MO110234
ACB 3-pole, 55kA, 1250A fixed, front side double-bore	MO1B	MO112234
ACB 3-pole, 55kA, 1600A fixed, front side double-bore	MO1B	MO116234
ACB 3-pole, 55kA, 2000A fixed, front side double-bore	MO1B	MO120234
66kA		
ACB 3-pole, 66kA 800A fixed, rear side horizontal	MOIN	MO108332
ACB 3-pole, 66kA 1000A fixed, rear side horizontal	MO1N	MO110332
ACB 3-pole, 66kA, 1250A fixed, rear side horizontal	MO1N	MO112332
ACB 3-pole, 66kA, 1600A fixed, rear side horizontal	MOIN	MO116332
ACB 3-pole, 66kA, 2000A fixed, rear side horizontal	MOIN	MO120332
ACB 3-pole, 66kA 1000A fixed, front side double-bore	MO1N	MO110334
ACB 3-pole, 66kA, 1250A fixed, front side double-bore	MO1N	MO112334
ACB 3-pole, 66kA, 1600A fixed, front side double-bore	MO1N	MO116334
ACB 3-pole, 66kA, 2000A fixed, front side double-bore	MOIN	MO120334



ACB MO Size 1 - 4-pole



MO108242

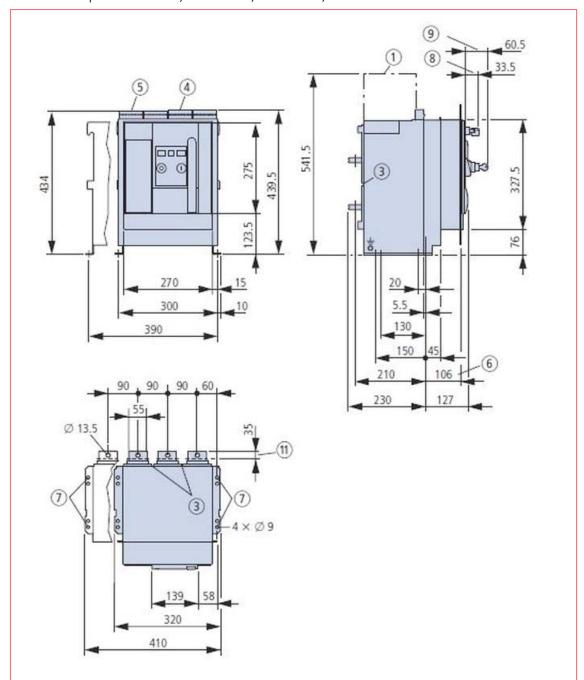
Schrack-Info

- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 2000A

	MO1B-4	MO1N-4
Rated current In	250 - 2000A	250 - 2000A
Rated voltage U _e	690VAC	690VAC
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _w at 500V 50/60Hz	55kA	66kA
I _{cu} at 690V 50/60Hz	42kA	50kA
I _{cs} at 500V 50/60Hz	55kA	66kA
I _{cs} at 690V 50/60Hz	42kA	50kA
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

ACB MO Size 1 - 4-pole

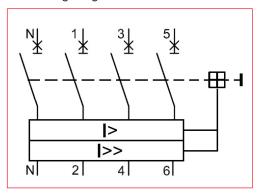
MCCB 3-pole MO1..242/MO1..244/MO1..342/MO1..344 dimensions



- 1) Mounting space for removing of arcing chamber covers
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 8) Interlock in OFF (optional accessory)
- 9) Key operation (optional accessory)
- 11) Connection area

ACB MO Size 1 - 4-pole

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
55kA		
ACB 4-pole, 55kA 800A fixed, rear side horizontal	MO1B-4	MO108242
ACB 4-pole, 55kA 1000A fixed, rear side horizontal	MO1B-4	MO110242
ACB 4-pole, 55kA, 1250A fixed, rear side horizontal	MO1B-4	MO112242
ACB 4-pole, 55kA, 1600A fixed, rear side horizontal	MO1B-4	MO116242
ACB 4-pole, 55kA, 2000A fixed, rear side horizontal	MO1B-4	MO120242
ACB 4-pole, 55kA 1000A fixed, front side double-bore	MO1B-4	MO110244
ACB 4-pole, 55kA, 1250A fixed, front side double-bore	MO1B-4	MO112244
ACB 4-pole, 55kA, 1600A fixed, front side double-bore	MO1B-4	MO116244
ACB 4-pole, 55kA, 2000A fixed, front side double-bore	MO1B-4	MO120244
66kA		
ACB 4-pole, 66kA 800A fixed, rear side horizontal	MO1N-4	MO108342
ACB 4-pole, 66kA 1000A fixed, rear side horizontal	MO1N-4	MO110342
ACB 4-pole, 66kA, 1250A fixed, rear side horizontal	MO1N-4	MO112342
ACB 4-pole, 66kA, 1600A fixed, rear side horizontal	MO1N-4	MO116342
ACB 4-pole, 66kA, 2000A fixed, rear side horizontal	MO1N-4	MO120342
ACB 4-pole, 66kA 1000A fixed, front side double-bore	MO1N-4	MO110344
ACB 4-pole, 66kA, 1250A fixed, front side double-bore	MO1N-4	MO112344
ACB 4-pole, 66kA, 1600A fixed, front side double-bore	MO1N-4	MO116344
ACB 4-pole, 66kA, 2000A fixed, front side double-bore	MO1N-4	MO120344





■ ACB MO Size 2 - 3-pole



MO220232

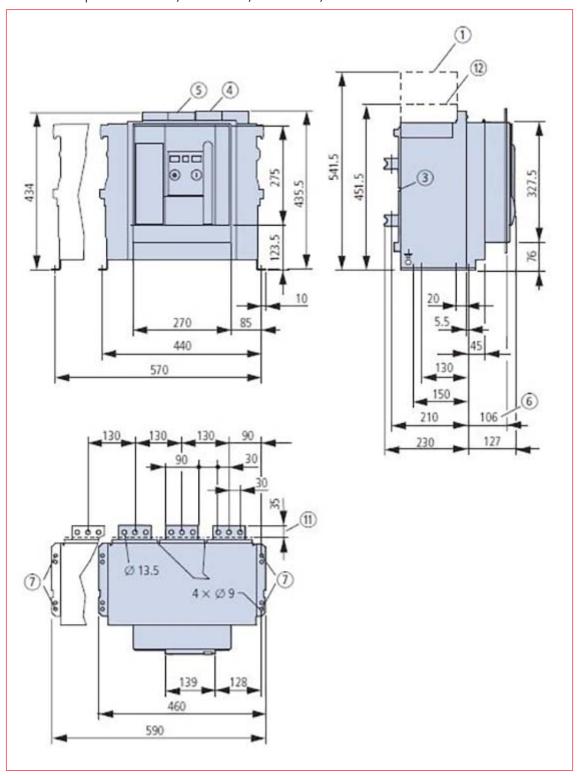
Schrack-Info

- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 3200A

	MO2B	MO2N
Rated current In	250 - 3200A	250 - 3200A
Rated voltage U _e	690VAC	690VAC
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 500V 50/60Hz	66kA	80kA
I _{cu} at 690V 50/60Hz	50kA	75kA
I _s at 500V 50/60Hz	66kA	80kA
I _s at 690V 50/60Hz	50kA	75kA
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

ACB MO Size 2 - 3-pole

MCCB 3-pole MO2..232/MO2..234/MO2..332/MO2..334 dimensions

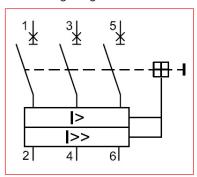


- 1) Mounting space for removing of arcing chamber covers
- With Ue = 1000V, 175mms are required for removing of the arcing chamber.
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- $\,$ 6) Dimension to inside of closed switchgear door $\,$
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only



■ ACB MO Size 2 - 3-pole

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
66kA		
ACB 3-pole, 66kA, 1600A fixed, rear side horizontal	MO2B	MO216232
ACB 3-pole, 66kA, 2000A fixed, rear side horizontal	MO2B	MO220232
ACB 3-pole, 66kA, 2500A fixed, rear side horizontal	MO2B	MO225232
ACB 3-pole, 66kA, 3200A fixed, rear side horizontal	MO2B	MO232232
ACB 3-pole, 66kA, 1600A fixed, front side double-bore	MO2B	MO216234
ACB 3-pole, 66kA, 2000A fixed, front side double-bore	MO2B	MO220234
ACB 3-pole, 66kA, 2500A fixed, front side double-bore	MO2B	MO225234
ACB 3-pole, 66kA, 3200A fixed, front side double-bore	MO2B	MO232234
80kA		
ACB 3-pole, 80kA, 800A fixed, rear side horizontal	MO2N	MO208332
ACB 3-pole, 80kA, 1000A fixed, rear side horizontal	MO2N	MO210332
ACB 3-pole, 80kA, 1250A fixed, rear side horizontal	MO2N	MO212332
ACB 3-pole, 80kA, 1600A fixed, rear side horizontal	MO2N	MO216332
ACB 3-pole, 80kA, 2000A fixed, rear side horizontal	MO2N	MO220332
ACB 3-pole, 80kA, 2500A fixed, rear side horizontal	MO2N	MO225332
ACB 3-pole, 80kA, 3200A fixed, rear side horizontal	MO2N	MO232332
ACB 3-pole, 80kA, 1600A fixed, front side double-bore	MO2N	MO216334
ACB 3-pole, 80kA, 2000A fixed, front side double-bore	MO2N	MO220334
ACB 3-pole, 80kA, 2500A fixed, front side double-bore	MO2N	MO225334
ACB 3-pole, 80kA, 3200A fixed, front side double-bore	MO2N	MO232334



ACB MO Size 2 - 4-pole



MO220242

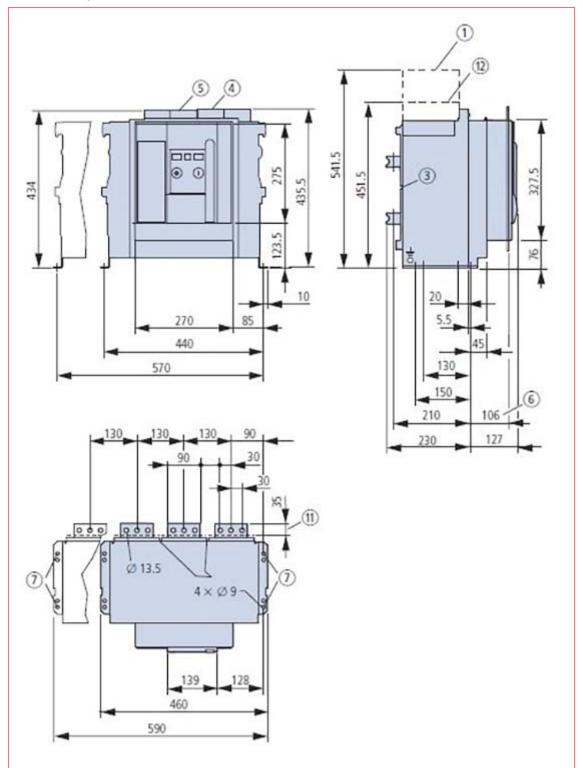
Schrack-Info

- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 3200A

	MO2B-4	MO2N-4
Rated current In	250 - 3200A	250 - 3200A
Rated voltage U _e	690VAC 690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _w at 500V 50/60Hz	66kA	80kA
I _{cu} at 690V 50/60Hz	50kA	<i>7</i> 5kA
I _{cs} at 500V 50/60Hz	66kA	80kA
I _{cs} at 690V 50/60Hz	50kA	<i>7</i> 5kA
Ambient temperature (operation)	-25°C	to +70°C
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

ACB MO Size 2 - 4-pole

MCCB 3-pole MO2..242/MO2..244/MO2..342/MO2..344 dimensions

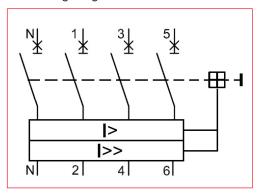


- 1) Mounting space for removing of arcing chamber covers
- With Ue = 1000V, $175 \, \text{mms}$ are required for removing of the arcing chamber.
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only



■ ACB MO Size 2 - 4-pole

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
66kA		
ACB 4-pole, 66kA, 1600A fixed, rear side horizontal	MO2B-4	MO216242
ACB 4-pole, 66kA, 2000A fixed, rear side horizontal	MO2B-4	MO220242
ACB 4-pole, 66kA, 2500A fixed, rear side horizontal	MO2B-4	MO225242
ACB 4-pole, 66kA, 3200A fixed, rear side horizontal	MO2B-4	MO232242
ACB 4-pole, 66kA, 1600A fixed, front side double-bore	MO2B-4	MO216244
ACB 4-pole, 66kA, 2000A fixed, front side double-bore	MO2B-4	MO220244
ACB 4-pole, 66kA, 2500A fixed, front side double-bore	MO2B-4	MO225244
ACB 4-pole, 66kA, 3200A fixed, front side double-bore	MO2B-4	MO232244
80kA		
ACB 4-pole, 80kA, 800A fixed, rear side horizontal	MO2N-4	MO208342
ACB 4-pole, 80kA, 1000A fixed, rear side horizontal	MO2N-4	MO210342
ACB 4-pole, 80kA, 1250A fixed, rear side horizontal	MO2N-4	MO212342
ACB 4-pole, 80kA, 1600A fixed, rear side horizontal	MO2H-4	MO216342
ACB 4-pole, 80kA, 2000A fixed, rear side horizontal	MO2N-4	MO220342
ACB 4-pole, 80kA, 2500A fixed, rear side horizontal	MO2N-4	MO225342
ACB 4-pole, 80kA, 3200A fixed, rear side horizontal	MO2N-4	MO232342
ACB 4-pole, 80kA, 1600A fixed, front side double-bore	MO2H-4	MO216344
ACB 4-pole, 80kA, 2000A fixed, front side double-bore	MO2N-4	MO220344
ACB 4-pole, 80kA, 2500A fixed, front side double-bore	MO2N-4	MO225344
ACB 4-pole, 80kA, 3200A fixed, front side double-bore	MO2N-4	MO232344

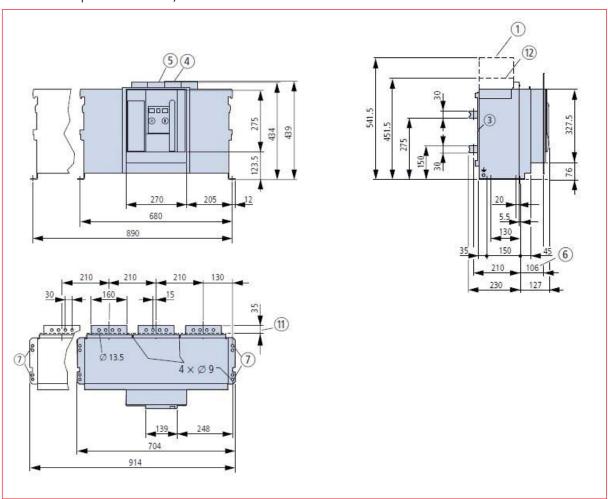
ACB MO Size 3 - 3-pole

Schrack-Info

- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 6300A

	мозн	
Rated current In	1250 - 6300A	
Rated voltage U _e	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 500V 50/60Hz	100kA	
I _{cu} at 690V 50/60Hz	85kA	
I _{cs} at 500V 50/60Hz	100kA	
I _{cs} at 690V 50/60Hz	85kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

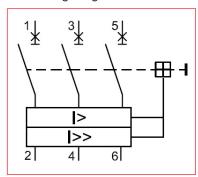
MCCB 3-pole MO3..432/MO3..431 dimensions



- 1) Mounting space for removing of arcing chamber covers
- With Ue = 1000V, 175mms are required for removing of the arcing chamber.
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- $\,$ 6) Dimension to inside of closed switchgear door $\,$
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only



- ACB MO Size 3 3-pole
- Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
100kA		
ACB 3-pole, 100kA, 4000A fixed, rear side horizontal	МОЗН	MO340432
ACB 3-pole, 100kA, 5000A fixed, rear side horizontal	МОЗН	MO350432
ACB 3-pole, 100kA, 6300A fixed, rear side vertical	МОЗН	MO363431

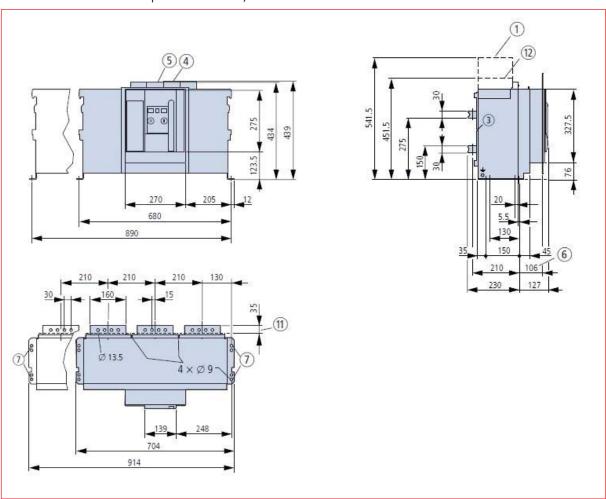
ACB MO Size 3 - 4-pole

Schrack-Info

- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 6300A

	MO3H-4	
Rated current In	1250 - 6300A	
Rated voltage U _e	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 500V 50/60Hz	100kA	
I _{cu} at 690V 50/60Hz	85kA	
I _{cs} at 500V 50/60Hz	100kA	
I _{cs} at 690V 50/60Hz	85kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

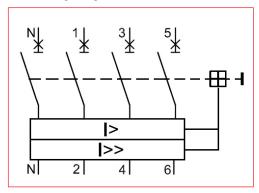
■ Dimensions: MCCB 4-pole MO3..442/MO3..441 dimensions



- 1) Mounting space for removing of arcing chamber covers
- With Ue = 1000V, 175mms are required for removing of the arcing chamber.
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only



- ACB MO Size 3 4-pole
- Wiring diagram



DESCRIPTION	TYPE NO. AVA	ILABLE ORDER NO.
100kA		
ACB 4-pole, 100kA, 4000A fixed, rear side horizontal	MO3H-4	MO340442
ACB 4-pole, 100kA, 5000A fixed, rear side horizontal	MO3H-4	MO350442
ACB 4-pole, 100kA, 6300A fixed, rear side vertical	MO3H-4	MO363441

Accessories, factory installed



Schrack-Info

- Electronic releases, motor operator, additional auxiliary contacts, mechanical interlocks, protection covers and locking mechanism can be selected by Configurator
- Factory installed accessories fully wired to auxiliary connectors
- For more information, see technical annex

Mo Pelacise units	DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Electronic release ETU258 with protection function LSIN MO-ZU MOSP0250 Electronic release ETU258 with protection function LSINS MO-ZU MOSP0250 Electronic release ETU258 with protection function LSINA, no display MO-ZU MOSP0450 Electronic release ETU458 with protection function LSINA, no display MO-ZU MOSP0450 Electronic release ETU458 with protection function LSINA + display MO-ZU MOSP0450 Electronic release ETU458 with protection function LSINA + display MO-ZU MOSP0460 Cover for arc chamber MO Size 1 - 3-pole Arc chute cover, for guide from MO1, 3-pole, factory installed MO1-ZU MOSIOR10 Cover for orc chamber MO Size 1 - 4-pole Arc chute cover, for guide from MO1, 4-pole, factory installed MO1-ZU MOSIOR10 Cover for orc chamber MO Size 2 - 3-pole Arc chute cover, for guide from MO2, 3-pole, factory installed MO2-ZU MOSP0810 Cover for orc chamber MO Size 2 - 4-pole Arc chute cover, for guide from MO2, 3-pole, factory installed MO2-ZU MOSP0810 Cover for orc chamber MO Size 3 - 3-pole Arc chute cover, for guide from MO2, 3-pole, factory installed MO2-ZU MOSP0810 Cover for orc chamber MO Size 3 - 3-pole Arc chute cover, for guide from MO3, 3-pole, factory installed MO3-ZU MOSP0810 Cover for orc chamber MO Size 3 - 3-pole Arc chute cover, for guide from MO3, 3-pole, factory installed MO3-ZU MOSP0810 Cover for orc chamber MO Size 3 - 4-pole Arc chute cover, for guide from MO3, 4-pole, factory installed MO3-ZU MOSP0810 Arc chute cover, for guide from MO3, 4-pole, factory installed MO3-ZU MOSP0810 Arc chute cover, for guide from MO3, 4-pole, factory installed MO3-ZU MOSP0800 Arc chute cover, for guide from MO3, 4-pole, factory installed MO3-ZU MOSP0800 Additionally Auxiliary contacts Ready to close signalling switch, factory installed MO3-ZU MOSP0800 Additionally Auxiliary contacts Ready to close signalling switch, factory installed MO3-ZU MOSP0800 Additional quite from MO3-ZU MOSP0800 Additional quite from MO3-ZU MOSP0800 Additional quite from MO3-ZU MOSP08000 Additional quite from MO3-ZU MOSP08000 Add	MO release units			
Electronic release ETU278 with protection function LSING MO-2U MO89027G Electronic release ETU458 with protection function LSIN, no display MO-2U MO890450 Electronic release ETU458 with protection function LSIN + display MO-2U MO890450 Electronic release ETU458 with protection function LSIN + display MO-2U MO890450 Electronic release ETU458 with protection function LSIN + display MO-2U MO890760 Cover for or cchamber MO Size 1 - 3-pole Arc chute cover, for guide frame MO1, 3-pole, factory installed MO1-2U MO810810 Cover for or cchamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed MO1-2U MO810810 Cover for or cchamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed MO2-2U MO820810 Cover for or cchamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 4-pole, factory installed MO2-2U MO820810 Cover for or cross MO3-2D MO820810 Cover f	Electronic release ETU 15B with protection function LI	MO-ZU		MO890150
Electronic release ETU.458 with protection function LSIN, no display Bectronic release ETU.458 with protection function LSIN * display Bectronic release ETU.458 with protection function LSIN * display MO-ZU MO890450 Electronic release ETU.458 with protection function LSIN * display MO-ZU MO890760 Cover for arc chamber MO Size 1 - 3-pole Arc chute cover, for guide frame MO1, 3-pole, factory installed MO1-ZU MO810810 Cover for arc chamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO1, 3-pole, factory installed MO2-ZU MO820810 Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed MO2-ZU MO820810 Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed MO2-ZU MO820810 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole, factory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO830810 Doar sealing frame MO-ZU MO800140 Alarm and auxiliary contacts Ready to dose signalling switch, factory installed MO-ZU MO800022 Tripped alarm switch, factory installed MO-ZU MO800003 Shutt release Z4VDC - 100% ED, factory installed MO-ZU MO800000 Shutt release Z4VDC - 100% ED, factory installed MO-ZU MO800000 Undervoltage release 24VDC, factory installed MO-ZU MO800000 Undervoltage release 24VDC, factory installed MO-ZU MO800000 Undervoltage release 24VDC, factory installed MO-ZU MO800000 Undervoltage release 22VDC / 200-XC, factory installed MO-ZU MO800000 Undervoltage release 22VDC / 200-XC, factory installed MO-ZU MO800000 MO800000 Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO800000 MO80000000000000000000000000	Electronic release ETU25B with protection function LSI	MO-ZU		MO890250
Electronic release ETU458 with protection function LSIN+ display Bectronic release ETU768 with protection function LSIN+ display MO-2U MO890760 Cover for arc chamber MO Size 1 - 3-pole Arc chute cover, for guide frame MO1, 3-pole, foctory installed MO1-ZU MO81010 Cover for arc chamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO1, 4-pole, foctory installed MO1-ZU MO810110 Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, foctory installed MO2-ZU MO820810 Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 3-pole, foctory installed MO2-ZU MO820810 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, foctory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole, foctory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 3-pole, foctory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, foctory installed MO3-ZU MO830810 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, foctory installed MO3-ZU MO830810 Door sealing frame Door sealing frame Door sealing frame MO-ZU MO8000140 Alarm and auxiliary contacts Ready to close signalling switch, foctory installed MO-ZU MO800002 Redditionally Auxiliary contacts 2NO+2NC, foctory installed MO-ZU MO800000 MO800000 MO800000 MO800000 Moeval MO800000 Undervoltage release 24VDC 10VAC, foctory installed MO-ZU MO800000 Undervoltage release 24VDC, foctory installed MO-ZU MO800000 Undervoltage release 22VVC, foctory installed MO-ZU MO800000 Undervoltage release 22VVC, foctory installed MO-ZU MO800000 Mo6000 Moeval Mo800000 Mofor operator Motor operator	Electronic release ETU27B with protection function LSING	MO-ZU		MO89027G
Electronic release ETU768 with protection function LSIN+ display Cover for arc chamber MO Size 1 - 3-pole Arc chulte cover, for guide frame MO1, 3-pole, factory installed MO1-ZU MO810R10 Cover for arc chamber MO Size 1 - 4-pole Arc chulte cover, for guide frame MO1, 4-pole, factory installed MO1-ZU MO814R10 Cover for arc chamber MO Size 2 - 3-pole Arc chulte cover, for guide frame MO2, 3-pole, factory installed MO2-ZU MO820R10 Cover for arc chamber MO Size 2 - 3-pole Arc chulte cover, for guide frame MO2, 3-pole, factory installed MO2-ZU MO820R10 Cover for arc chamber MO Size 3 - 3-pole Arc chulte cover, for guide frame MO2, 3-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 3-pole Arc chulte cover, for guide frame MO3, 3-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chulte cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chulte cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chulte cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800C07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO800C07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO800C00 Shurt release 24VDC - 100% ED, factory installed MO-ZU MO800C00 Shurt release 24VDC, factory installed MO-ZU MO800C00 Undervoltage release 24VDC, factory installed MO-ZU MO800C00 Undervoltage release 24VDC, factory installed MO-ZU MO800C00 Undervoltage release 24VDC, factory installed MO-ZU MO800C00 MO600C00 Mo600C00 Mo600C00C00 Mo600C00C00C00C0C0C, factory installed MO-ZU MO800C00 MO600C00C00C00C0C0C0C, factory installed MO600C0C0C0C0C0C0C0C0C0C0C0C0C0C0C0C0C0C0	Electronic release ETU45B with protection function LSIN, no display	MO-ZU		MO890450
Cover for arc chamber MO Size 1 - 3-pole Arc chute cover, for guide frame MO1, 3-pole, foctory installed Arc chute cover, for guide frame MO3, 4-pole, foctory installed Arc chute cover, for guide frame MO3, 4-pole, foctory installed Arc chute cover, for guide frame MO3, 4-pole, foctory installed Arc chute cover, for guide frame MO2, 4-pole, foctory installed Arc chute cover, for guide frame MO2, 3-pole, foctory installed Arc chute cover, for guide frame MO2, 3-pole, foctory installed Arc chute cover, for guide frame MO2, 4-pole, foctory installed Arc chute cover, for guide frame MO3, 3-pole, foctory installed Arc chute cover, for guide frame MO3, 3-pole, foctory installed Arc chute cover, for guide frame MO3, 3-pole, foctory installed Arc chute cover, for guide frame MO3, 4-pole, foctory installed Arc chute cover, for	Electronic release ETU45B with protection function LSIN + display	MO-ZU		MO89D450
Arc chute cover, for guide frame MO1, 3-pole, factory installed Arc chute cover, for guide frame MO1, 4-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide fram	Electronic release ETU76B with protection function LSIN + display	MO-ZU		MO890760
Cover for arc chamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO1, 4-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Alarm and auxiliary contacts Alarm and auxiliary contacts Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC, factory installed Ano-ZU ANO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed Ano-ZU ANO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed Ano-ZU ANO800M00 Ano800000 Anoevoltage release units Anoevoltage release units Anoevoltage release 2AVDC - 100% ED, factory installed Anoevoltage release 2AVDC, factory installed Anoevolta	Cover for arc chamber MO Size 1 - 3-pole			
Arc chute cover, for guide frame MO1, 4-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Alarm and auxiliary contacts Ready to dose signalling switch, factory installed Alarm and auxiliary contacts Ready to dose signalling switch, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Alarm and auxiliary contacts Ready to dose signalling switch, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, factory installed Active cover, for guide frame MO3, 4-pole, f	Arc chute cover, for guide frame MO1, 3-pole, factory installed	MO1-ZU		MO810R10
Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Alarm and auxiliary contacts Ready to close signalling switch, factory installed Alarm and auxiliary contacts Ready to close signalling switch, factory installed Alarm and auxiliary contacts Ready to close signalling switch, factory installed Alarm and auxiliary contacts 2NO+2NC, factory installed Alarm and auxiliary contacts	Cover for arc chamber MO Size 1 - 4-pole			
Arc chute cover, for guide frame MO2, 3-pole, factory installed MO2-ZU MO820R10 Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 4-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO834R10 Door sealing frame Door sealing frame Door sealing frame MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2 NO+2NC, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2 NO+2NC, factory installed MO-ZU MO800K07 MO890000 Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890000 Shunt release 22VD C / 230VAC, factory installed MO-ZU MO890000 Undervoltage release 2 VDC, factory installed MO-ZU MO890000 Mo890000	Arc chute cover, for guide frame MO1, 4-pole, factory installed	MO1-ZU		MO814R10
Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Alarm and auxiliary contacts Ready to close signalling switch, factory installed Alarm and auxiliary contacts Ready to close signalling switch, factory installed AMO-ZU MO800CQ2 Tripped alarm switch, factory installed MO-ZU MO800CQ2 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890000 Shunt frelease 24VDC - 100% ED, factory installed MO-ZU MO890000 Shunt release 24VDC / 230VAC, factory installed MO-ZU MO890000 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Mo890000 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO890000 Mo890000 Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO890000	Cover for arc chamber MO Size 2 - 3-pole			
Arc chute cover, for guide frame MO2, 4-pole, factory installed Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO834R10 Door sealing frame Door sealing frame MO-ZU MO800C12 Tripped alarm switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800C07 Additionally Auxiliary contacts NO-ZU MO800C07 Additionally Auxiliary contacts NO-ZU MO800C07 Additionally Auxiliary contacts NO-ZU MO800C07 M	Arc chute cover, for guide frame MO2, 3-pole, factory installed	MO2-ZU		MO820R10
Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole, factory installed MO3-ZU MO830R10 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO834R10 Door sealing frame Door sealing frame Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890000 Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890000 Shunt release 210V DC / 230VAC, factory installed MO-ZU MO890600 Undervoltage release 24VDC, factory installed MO-ZU MO890600 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Mo890000 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO890000 Mo890000 Motor operator	Cover for arc chamber MO Size 2 - 4-pole			
Arc chute cover, for guide frame MO3, 3-pole, factory installed Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO834R10 Door sealing frame Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt rejease 24VDC - 100% ED, factory installed MO-ZU MO890800 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890600 Undervoltage release 220V DC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Mo890000 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO890000 Mo890000 Mechanical interlock	Arc chute cover, for guide frame MO2, 4-pole, factory installed	MO2-ZU		MO824R10
Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole, factory installed MO3-ZU MO8034R10 Door sealing frame Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO800K07 MO890004 Shunt rips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890F00 Shunt release 22VV Companies of the companies	Cover for arc chamber MO Size 3 - 3-pole			
Arc chute cover, for guide frame MO3, 4-pole, factory installed Door sealing frame Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt rips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890800 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890600 Undervoltage release 24VDC, factory installed MO-ZU MO890600 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Mo890000 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890000 MO890000 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890000 MO890000 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO890000 MO890000 Moerchanical interlock	Arc chute cover, for guide frame MO3, 3-pole, factory installed	MO3-ZU		MO830R10
Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO890000 Undervoltage release 220VAC factory installed MO-ZU MO890000 Undervoltage release 220VAC factory installed MO-ZU MO8900N0 Undervoltage release 220VAC factory installed MO-ZU MO8900N0 Mo8900N0 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO8900N0 MO-ZU MO8900N0	Cover for arc chamber MO Size 3 - 4-pole			
Door sealing frame MO-ZU MO800T40 Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890800 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890600 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890600 Undervoltage release 220V DC, factory installed MO-ZU MO890000 Undervoltage release 220V DC, factory installed MO-ZU MO890000 Undervoltage release 220V DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO8900N0 Mechanical interlock	Arc chute cover, for guide frame MO3, 4-pole, factory installed	MO3-ZU		MO834R10
Alarm and auxiliary contacts Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO890J0 Undervoltage release 24VDC, factory installed MO-ZU MO890N0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 Mo890N0 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 Mo890N0 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 MO890N0 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 Moervoltage release 220VAC/DC, factory installed MO-ZU MO890N0 Mo8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000	Door sealing frame			
Ready to close signalling switch, factory installed MO-ZU MO800C22 Tripped alarm switch, factory installed MO-ZU MO800K07 Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900J0 Undervoltage release 210VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO8900N0 Mechanical interlock	Door sealing frame	MO-ZU		MO800T40
Tripped alarm switch, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890B00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO890G00 Undervoltage release 210-125VAC/DC, factory installed MO-ZU MO890000 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator Moechanical interlock	Alarm and auxiliary contacts			
Additionally Auxiliary contacts 2NO+2NC, factory installed MO-ZU MO890004 Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO890J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO890M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Mo8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO8900N0 Mo8900N0	Ready to close signalling switch, factory installed	MO-ZU		MO800C22
Shunt trips and undervoltage release units Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO8900N0	Tripped alarm switch, factory installed	MO-ZU		MO800K07
Shunt release 24VDC - 100% ED, factory installed MO-ZU MO890B00 Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900J0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator Mo-ZU MO894000 Mechanical interlock	Additionally Auxiliary contacts 2NO+2NC, factory installed	MO-ZU	555 0-6	MO890004
Shunt release 110V DC / 110VAC, factory installed MO-ZU MO890F00 Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Shunt trips and undervoltage release units			
Shunt release 220V DC / 230VAC, factory installed MO-ZU MO890G00 Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Shunt release 24VDC - 100% ED, factory installed	MO-ZU		MO890B00
Undervoltage release 24VDC, factory installed MO-ZU MO8900J0 Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Shunt release 110V DC / 110VAC, factory installed	MO-ZU		MO890F00
Undervoltage release 110-125VAC/DC, factory installed MO-ZU MO8900M0 Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Shunt release 220V DC / 230VAC, factory installed	MO-ZU		MO890G00
Undervoltage release 220VAC/DC, factory installed MO-ZU MO8900N0 Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Undervoltage release 24VDC, factory installed	MO-ZU		MO8900J0
Motor operator Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Undervoltage release 110-125VAC/DC, factory installed	MO-ZU		MO8900M0
Motor operator, 220-250VDC / 208-240VAC, factory installed MO-ZU MO894000 Mechanical interlock	Undervoltage release 220VAC/DC, factory installed	MO-ZU		MO8900N0
Mechanical interlock	Motor operator			
	Motor operator, 220-250VDC / 208-240VAC, factory installed	MO-ZU		MO894000
Mechanical Interlock module for fixed type circuit breaker MO-ZU MO800S55	Mechanical interlock			
	Mechanical Interlock module for fixed type circuit breaker	MO-ZU		MO800S55



Accessories, as spare parts



Schrack-Info

• For retrofitting (possibly, additional necessary auxiliary connectors have to be considered)

MO90AT81

Cover for arc chamber MO Size 1 - 3-pole Arc chute cover, for guide frame MO1, 3-pole (as spare part) MO1-ZU MO90AS32 Cover for arc chamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO1, 4-pole (as spare part) MO1-ZU MO90AS42 Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole (as spare part) MO2-ZU MO90AS36 Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AHO1 Tripped signal switch (as spare part) MO-ZU MO90AHO1 Tripped signal switch (as spare part) MO-ZU MO90AD06 Shunt trips and undervoltage release units Shunt release 22VDC / 23OVAC (as spare part) MO-ZU MO90AD05 Shunt release 21VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 MO90AE01 MO90AE01 MO40AE01 MO90AE01 MO40AE01 MO90AE01	DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Cover for arc chamber MO Size 1 - 4-pole Arc chute cover, for guide frame MO1, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare	Cover for arc chamber MO Size 1 - 3-pole			
Arc chute cover, for guide frame MO1, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part)	Arc chute cover, for guide frame MO1, 3-pole (as spare part)	MO1-ZU		MO90AS32
Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO5 Size 2 - 4-pole Arc chute cover, for guide frame MO5, 4-pole (as spare part) MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AH01 Tripped signal lisy switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220VDC / 205-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Cover for arc chamber MO Size 1 - 4-pole			
Arc chute cover, for guide frame MO2, 3-pole (as spare part) Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shunt release 380-415VAC (as spare part) MO-ZU MO90AD01 Undervoltage release 220VDC / 208-240VAC (as spare part) MO-ZU MO90AD05 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 220VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 220VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Arc chute cover, for guide frame MO1, 4-pole (as spare part)	MO1-ZU		MO90AS42
Cover for arc chamber MO Size 2 - 4-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AB01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 MO90AE05	Cover for arc chamber MO Size 2 - 3-pole			
Arc chute cover, for guide frame MO2, 4-pole (as spare part) Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO3-ZU MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 MO90AE05 MO90AE05 MO-ZU MO90AE05 MO90AE05 MO-ZU MO90AE05	Arc chute cover, for guide frame MO2, 3-pole (as spare part)	MO2-ZU		MO90AS36
Cover for arc chamber MO Size 3 - 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) MO90AS38 Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 MO90AE05 MO90AE05	Cover for arc chamber MO Size 2 - 4-pole			
Arc chute cover, for guide frame MO3, 3-pole (as spare part) Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS38 Additionally Auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 MO90AE05 MO90AE05	Arc chute cover, for guide frame MO2, 4-pole (as spare part)	MO2-ZU		MO90AS44
Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Cover for arc chamber MO Size 3 - 3-pole			
Arc chute cover, for guide frame MO3, 4-pole (as spare part) Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) Ready to close signalling switch (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Arc chute cover, for guide frame MO3, 3-pole (as spare part)	MO3-ZU		MO90AS38
Additionally Auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Cover for arc chamber MO Size 3 - 4-pole			
Additionally Auxiliary contacts 2NO+2NC (as spare part) Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Arc chute cover, for guide frame MO3, 4-pole (as spare part)	MO3-ZU		MO90AS46
Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Alarm and auxiliary contacts			
Tripped signal switch (as spare part) Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Additionally Auxiliary contacts 2NO+2NC (as spare part)	MO-ZU		MO90AG01
Shunt trips and undervoltage release units Shunt release 220VDC / 230VAC (as spare part) Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Ready to close signalling switch (as spare part)	MO-ZU		MO90AH01
Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05	Tripped signal switch (as spare part)	MO-ZU		MO90AH04
Shunt release 110VDC / 110VAC (as spare part) Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AE06 Undervoltage release 280-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01	Shunt trips and undervoltage release units			
Shunt release 24VDC (as spare part) Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01	Shunt release 220VDC / 230VAC (as spare part)	MO-ZU	000 0-0	MO90AD06
Undervoltage release 380-415VAC (as spare part) Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01	Shunt release 110VDC / 110VAC (as spare part)	MO-ZU		MO90AD05
Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01	Shunt release 24VDC (as spare part)	MO-ZU		MO90AD01
Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01	Undervoltage release 380-415VAC (as spare part)	MO-ZU		MO90AE06
	Undervoltage release 220-250VDC/208-240VAC (as spare part)	MO-ZU		MO90AE05
Motor operator	Undervoltage release 24VDC (as spare part)	MO-ZU		MO90AE01
	Motor operator			
Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04	Motor operator, 220-250VDC / 208-240VAC (as spare part)	MO-ZU		MO90AF04
Mechanical interlock	Mechanical interlock			
Mechanical Interlock module for fixed type circuit breaker, spare part MO-ZU MO90S550	Mechanical Interlock module for fixed type circuit breaker, spare part	MO-ZU		MO90S550
Door sealing frame	Door sealing frame			
Door sealing frame (as spare part) MO-ZU MO90AP01	Door sealing frame (as spare part)	MO-ZU	000 0-0	MO90AP01
Other Accessory	Other Accessory			
Make connectors for circuit breakers MO-ZU MO90AB01	Make connectors for circuit breakers	MO-ZU		MO90AB01
Auxiliary connector for frame and switch MO-ZU MO90AB03	Auxiliary connector for frame and switch	MO-ZU		MO90AB03
Safety cover IP55, is not use in combination with door sealing frame MO-ZU MO90AP02	Safety cover IP55, is not use in combination with door sealing frame	MO-ZU		MO90AP02
4 line display for ETU45B MO-ZU MO90AT81	4 line display for ETU45B	MO-ZU		MO90AT81
Sealing cap for mechanical On/Off, made by CES MO-ZU MO90BA22	Sealing cap for mechanical On/Off, made by CES	MO-ZU		MO90BA22
Support bracket, frame size 1/2 (as spare part) MO-ZU MO90BB50	Support bracket, frame size 1/2 (as spare part)	MO-ZU		MO90BB50



ACB MO, withdrawable



MO 112236

Schrack-Info

- Withdrawable ACB in 3 sizes, 3 or 4-pole, 250A up to 6300A
- Shot circuit switching capacity Icu = 55, 66, 80kA (100kA on request)
- 5 types of electronic release units ETU
- Horizontal- and front side-connection bars available (vertical version on request)
- Wide range of accessories
- Internet-Configurator downloadable. According this, ACB will be factory-assembled and delivered as complete device

■ ACB MO Size 1 - 3-pole, withdrawable



MO110236

Schrack-Info

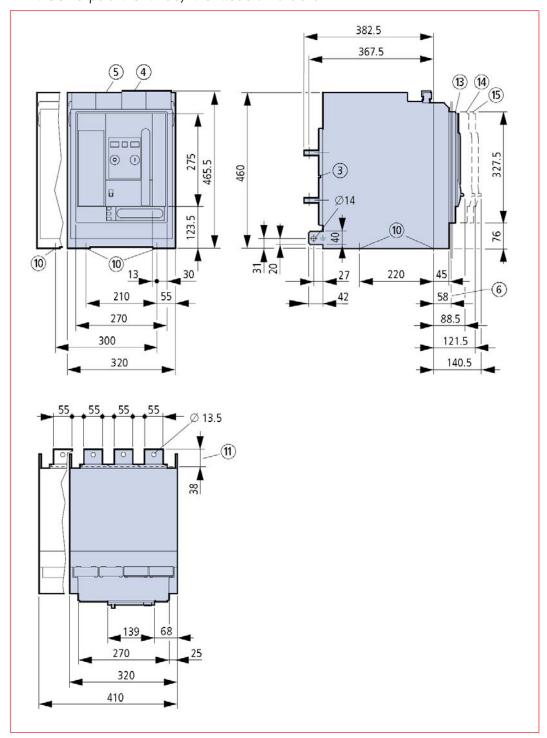
- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 2000A

MO1B	MOIN	
250 - 2000A	250 - 2000A	
690VAC	690VAC	
55kA	66kA	
42kA	50kA	
55kA	66kA	
42kA	50kA	
-25°C to +70°C		
vertical and 30° in all directions		
IEC/EN 60947-2, VDE 0660		
	250 - 2000A 690VAC 55kA 42kA 55kA 42kA -25°C vertical and 30	



■ ACB MO Size 1 - 3-pole, withdrawable

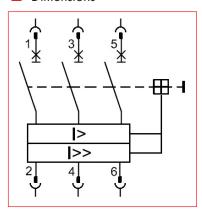
■ MCCB 3-pole MO1..236/MO1..336 dimensions



- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position

■ ACB MO Size 1 - 3-pole, withdrawable

Dimensions



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
55kA		
ACB 3-pole, 55kA 1000A draw-out, rear side horizontal	MO1B	MO110236
ACB 3-pole, 55kA, 1250A draw-out, rear side horizontal	MO1B	MO 112236
ACB 3-pole, 55kA, 1600A draw-out, rear side horizontal	MO1B	MO 116236
ACB 3-pole, 55kA, 2000A draw-out, rear side horizontal	MO1B	MO 120236
66kA		
ACB 3-pole, 66kA 1000A draw-out, rear side horizontal	MO1N	MO110336
ACB 3-pole, 66kA, 1250A draw-out, rear side horizontal	MO1N	MO 112336
ACB 3-pole, 66kA, 1600A draw-out, rear side horizontal	MO1N	MO116336
ACB 3-pole, 66kA, 2000A draw-out, rear side horizontal	MOIN	MO120336

■ ACB MO Size 1 - 4-pole, withdrawable



Schrack-Info

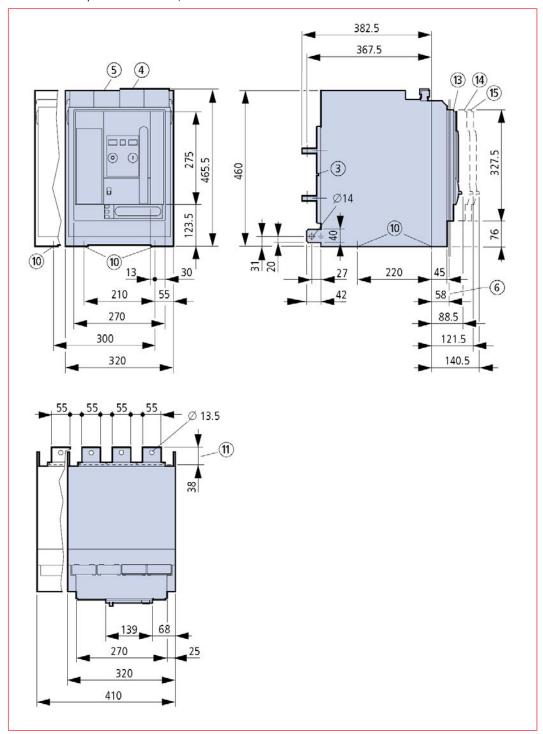
- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 2000A

MO110246

	MO1B-4 MO1N-4		
Rated current In	250 - 2000A	250 - 2000A	
Rated voltage U _e	690VAC	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _w at 500V 50/60Hz	55kA	66kA	
I _{cu} at 690V 50/60Hz	42kA	50kA	
I _{cs} at 500V 50/60Hz	55kA	66kA	
I _{cs} at 690V 50/60Hz	42kA	50kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 30° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

■ ACB MO Size 1 - 4-pole, withdrawable

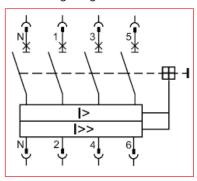
■ MCCB 4-pole MO1..246/MO1..346 dimensions



- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position

ACB MO Size 1 - 4-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
55kA		
ACB 4-pole, 55kA 1000A draw-out, rear side horizontal	MO1B-4	MO110246
ACB 4-pole, 55kA, 1250A draw-out, rear side horizontal	MO1B-4	MO112246
ACB 4-pole, 55kA, 1600A draw-out, rear side horizontal	MO1B-4	MO116246
ACB 4-pole, 55kA, 2000A draw-out, rear side horizontal	MO1B-4	MO120246
66kA		
ACB 4-pole, 66kA 1000A draw-out, rear side horizontal	MO1N-4	MO110346
ACB 4-pole, 66kA, 1250A draw-out, rear side horizontal	MO1N-4	MO112346
ACB 4-pole, 66kA, 1600A draw-out, rear side horizontal	MO1N-4	MO116346
ACB 4-pole, 66kA, 2000A draw-out, rear side horizontal	MO1N-4	MO120346

■ ACB MO Size 2 - 3-pole, withdrawable



Schrack-Info

- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 3200A

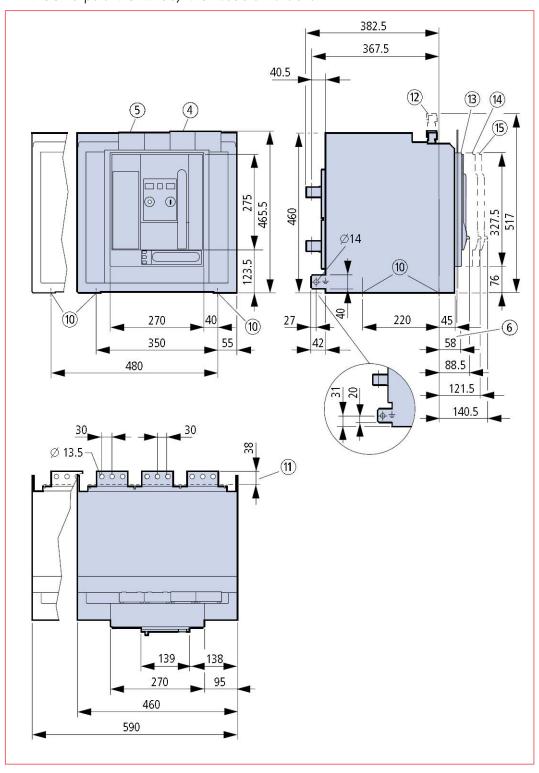
MO216236

	MO2B MO2N		
Rated current In	250 - 3200A	250 - 3200A	
Rated voltage U _e	690VAC	690VAC	
Rated short-circuit breaking capacity l _{cu} /l _{cs}			
I _{cu} at 500V 50/60Hz	66kA	80kA	
I _{cu} at 690V 50/60Hz	50kA	75kA	
I _{cs} at 500V 50/60Hz	66kA	80kA	
I _s at 690V 50/60Hz	50kA	75kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 30° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		



■ ACB MO Size 2 - 3-pole, withdrawable

■ MCCB 3-pole MO2..236/MO2..336 dimensions

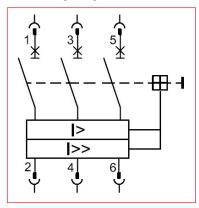


- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position



■ ACB MO Size 2 - 3-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
66kA		
ACB 3-pole, 66kA, 1600A draw-out, rear side horizontal	MO2B	MO216236
ACB 3-pole, 66kA, 2000A draw-out, rear side horizontal	MO2B	MO220236
ACB 3-pole, 66kA, 2500A draw-out, rear side horizontal	MO2B	MO225236
ACB 3-pole, 66kA, 3200A draw-out, rear side horizontal	MO2B	MO232236
80kA		
ACB 3-pole, 80kA, 1600A draw-out, rear side horizontal	MO2N	MO216336
ACB 3-pole, 80kA, 2000A draw-out, rear side horizontal	MO2N	MO220336
ACB 3-pole, 80kA, 2500A draw-out, rear side horizontal	MO2N	MO225336
ACB 3-pole, 80kA, 3200A draw-out, rear side horizontal	MO2N	MO232336

■ ACB MO Size 2 - 4-pole, withdrawable



Schrack-Info

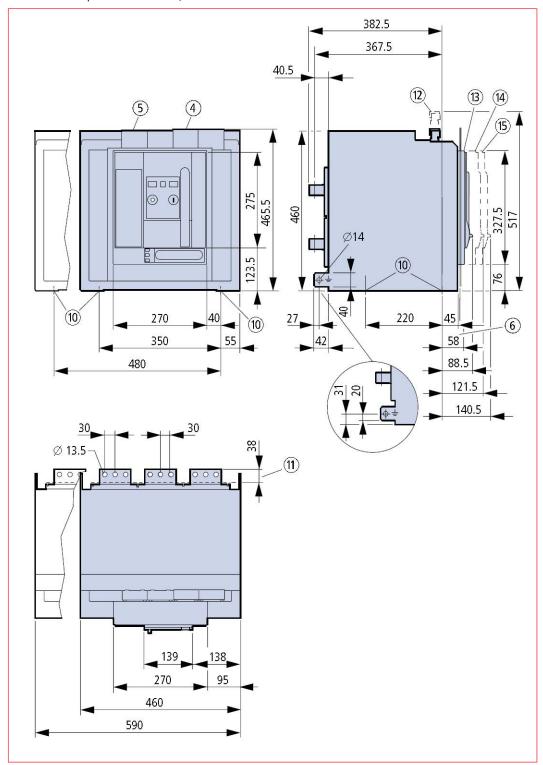
- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 3200A

MO216246

	MO2B-4 MO2N-4		
Rated current In	250 - 3200A	250 - 3200A	
Rated voltage U _e	690VAC	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}			
I _{cu} at 500V 50/60Hz	66kA	80kA	
I _{cu} at 690V 50/60Hz	50kA	75kA	
I _s at 500V 50/60Hz	66kA	80kA	
I _{cs} at 690V 50/60Hz	50kA	75kA	
Ambient temperature (operation)	-25°C to +70°C		
Mounting position	vertical and 30° in all directions		
Standards and regulations	IEC/EN 60947-2, VDE 0660		

■ ACB MO Size 2 - 4-pole, withdrawable

■ MCCB 3-pole MO2..246/MO2..346 dimensions

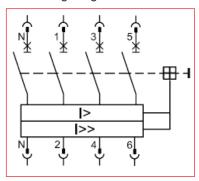


- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position



■ ACB MO Size 2 - 4-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
66kA		
ACB 4-pole, 66kA, 1600A draw-out, rear side horizontal	MO2B-4	MO216246
ACB 4-pole, 66kA, 2000A draw-out, rear side horizontal	MO2B-4	MO220246
ACB 4-pole, 66kA, 2500A draw-out, rear side horizontal	MO2B-4	MO225246
ACB 4-pole, 66kA, 3200A draw-out, rear side horizontal	MO2B-4	MO232246
80kA		
ACB 4-pole, 80kA, 1600A draw-out, rear side horizontal	MO2H-4	MO216346
ACB 4-pole, 80kA, 2000A draw-out, rear side horizontal	MO2N-4	MO220346
ACB 4-pole, 80kA, 2500A draw-out, rear side horizontal	MO2N-4	MO225346
ACB 4-pole, 80kA, 3200A draw-out, rear side horizontal	MO2N-4	MO232346

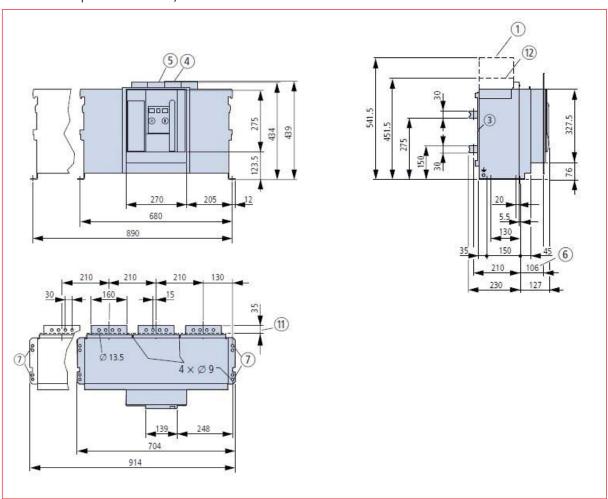
ACB MO Size 3 - 3-pole, withdrawable

Schrack-Info

- 3-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 6300A

	мозн	
Rated current In	1250 - 6300A	
Rated voltage U _e	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 500V 50/60Hz	100kA	
I _{cu} at 690V 50/60Hz	85kA	
I _{cs} at 500V 50/60Hz	100kA	
I _{cs} at 690V 50/60Hz	85kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

MCCB 3-pole MO3..436/MO3..437 dimensions

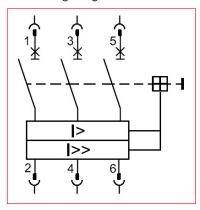


- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\frac{1}{2}$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position



■ ACB MO Size 3 - 3-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
100kA			
ACB 3-pole, 100kA, 4000A draw out, rear side horizontal	мозн		MO340436
ACB 3-pole, 100kA, 5000A draw out, rear side horizontal	мозн		MO350436
ACB 3-pole, 100kA, 6300A draw out, rear side vertical	мозн		MO363437

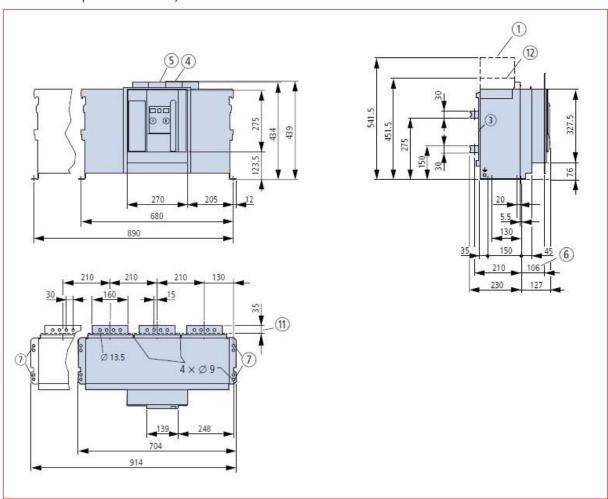
ACB MO Size 3 - 4-pole, withdrawable

Schrack-Info

- 4-pole basic device, manually operated, 2NO+2NC auxiliary contacts included and wired to auxiliary connector, without electronic release ETU
- Rated current up to 6300A

	MO3H-4	
Rated current In	1250 - 6300A	
Rated voltage U _e	690VAC	
Rated short-circuit breaking capacity I _{cu} /I _{cs}		
I _{cu} at 500V 50/60Hz	100kA	
I _{cu} at 690V 50/60Hz	85kA	
I _{cs} at 500V 50/60Hz	100kA	
I _{cs} at 690V 50/60Hz	85kA	
Ambient temperature (operation)	-25°C to +70°C	
Mounting position	vertical and 30° in all directions	
Standards and regulations	IEC/EN 60947-2, VDE 0660	

MCCB 4-pole MO3..446/MO3..447 dimensions

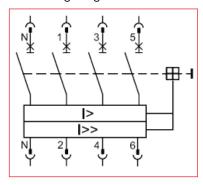


- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in in connected position
- 14) MO in test position
- 15) MO in disconnected position



■ ACB MO Size 3 - 4-pole, withdrawable

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLI	E ORDER NO.
100kA		
ACB 4-pole, 100kA, 4000A draw out, rear side horizontal	MO3H-4	MO340446
ACB 4-pole, 100kA, 5000A draw out, rear side horizontal	MO3H-4	MO350446
ACB 4-pole, 100kA, 6300A draw out, rear side vertical	МОЗН-4	MO363447

Accessories, factory installed



Schrack-Info

- Electronic releases, motor operator, additional auxiliary contacts, mechanical interlocks, protection covers and locking mechanism can be selected by Configurator
- Factory installed accessories fully wired to auxiliary connectors
- For more information, see technical annex

MOBUURSS		
DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Alarm and auxiliary contacts		
Electronic release ETU 15B with protection function LI	MO-ZU	MO890150
Electronic release ETU25B with protection function LSI	MO-ZU	MO890250
Electronic release ETU27B with protection function LSING	MO-ZU	MO89027G
Electronic release ETU45B with protection function LSIN, no display	MO-ZU	MO890450
Electronic release ETU45B with protection function LSIN + display	MO-ZU	MO89D450
Electronic release ETU76B with protection function LSIN + display	MO-ZU	MO890760
Cover for arc chamber MO Size 1 - 3-pole		
Arc chute cover, for guide frame MO1, 3-pole, factory installed	MO1-ZU	MO810R10
Cover for arc chamber MO Size 1 - 4-pole		
Arc chute cover, for guide frame MO1, 4-pole, factory installed	MO1-ZU	MO814R10
Cover for arc chamber MO Size 2 - 3-pole		
Arc chute cover, for guide frame MO2, 3-pole, factory installed	MO2-ZU	MO820R10
Cover for arc chamber MO Size 2 - 4-pole		
Arc chute cover, for guide frame MO2, 4-pole, factory installed	MO2-ZU	MO824R10
Cover for arc chamber MO Size 3 - 3-pole		
Arc chute cover, for guide frame MO3, 3-pole, factory installed	MO3-ZU	MO830R10
Cover for arc chamber MO Size 3 - 4-pole		
Arc chute cover, for guide frame MO3, 4-pole, factory installed	MO3-ZU	MO834R10
Shutter		
Shutter 3-pole, frame size 1	MO1-ZU	MO810R21
Shutter 4-pole, frame size 1, factory installed	MO1-ZU	MO814R21
Shutter 3-pole, frame size 2, factory installed	MO2-ZU	MO820R21
Shutter 4-pole, frame size 2, factory installed	MO2-ZU	MO824R21
Shutter 3-pole, frame size 3, factory installed	MO3-ZU	MO830R21
Shutter 4-pole, frame size 3, factory installed	MO3-ZU	MO834R21
Door sealing frame		
Door sealing frame	MO-ZU	MO800T40
Alarm and auxiliary contacts		
Ready to close signalling switch, factory installed	MO-ZU	MO800C22
Tripped alarm switch, factory installed	MO-ZU	MO800K07
Shunt trips and undervoltage release units		
Shunt release 24VDC - 100% ED, factory installed	MO-ZU	MO890B00
Shunt release 110V DC / 110VAC, factory installed	MO-ZU	MO890F00
Shunt release 220V DC / 230VAC, factory installed	MO-ZU	MO890G00
Undervoltage release 24VDC, factory installed	MO-ZU	MO8900J0
Undervoltage release 110-125VAC/DC, factory installed	MO-ZU	MO8900M0
Undervoltage release 220VAC/DC, factory installed	MO-ZU	MO8900N0
Motor operator		
Motor operator, 220-250VDC / 208-240VAC, factory installed	MO-ZU	MO894000
Mechanical interlock		
Mechanical Interlock module for draw-out circuit breaker	MO-ZU	MO800R55
Electronic release ETU76B with protection function LSIN + display Arc chute cover, for guide frame MO1, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 3-pole, factory installed Arc chute cover, for guide frame MO2, 4-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 3-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide frame MO3, 4-pole, factory installed Arc chute cover, for guide fr		/Seus

Accessories, as spare parts



Schrack-Info

• For retrofitting (possibly, additional necessary auxiliary connectors have to be considered)

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Cover for arc chamber MO Size 1 - 3-pole MO1-ZU MO90AS32 Arc chate cover, for guide frome MO1, 3-pole (as spare part) MO1-ZU MO90AS32 Cover for arc chamber MO Size 1 - 4-pole MO90AS42 Cover for arc chamber MO Size 2 - 3-pole MO2-ZU MO90AS36 Cover for arc chamber MO Size 2 - 3-pole MO2-ZU MO90AS44 Cover for arc chamber MO Size 2 - 4-pole MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole MO2-ZU MO90AS44 Cover for arc chamber MO Size 3 - 3-pole MO3-ZU MO90AS48 Cover for arc chamber MO Size 3 - 3-pole MO3-ZU MO90AS46 Cover for arc chamber MO Size 3 - 4-pole MO3-ZU MO90AS46 Shutter Apole, former size 1 (as spore part) MO3-ZU MO90AS46 Shutter Apole, former size 2 (as spore part) MO1-ZU MO90AP0 Shutter 4-pole, former size 1 (as spore part) MO1-ZU MO90AP0 Shutter 4-pole, former size 2 (as spore part) MO1-ZU MO90AP0 Shutter 4-pole, former size 1 (as spore part) MO2-ZU MO90AP0 Additionally Auxiliary contacts MO2-ZU MO90AP0 <tr< th=""><th>DESCRIPTION</th><th>TYPE NO. AVAILABLE</th><th>ORDER NO.</th></tr<>	DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Cover for arc chamber MO Size 1 - 4-pole Arc chule cover, for guide frame MOJ, 4-pole (as spare part) Arc chule cover, for guide frame MOJ, 4-pole (as spare part) Arc chule cover, for guide frame MOZ, 3-pole (as spare part) Arc chule cover, for guide frame MOZ, 3-pole (as spare part) Arc chule cover, for guide frame MOZ, 4-pole (as spar	Cover for arc chamber MO Size 1 - 3-pole		
Arc chute cover, for guide frame MO1, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole Arc chute cover, for guid	Arc chute cover, for guide frame MO1, 3-pole (as spare part)	MO1-ZU	MO90AS32
Cover for arc chamber MO Size 2 - 3-pole Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole Arc dute c	Cover for arc chamber MO Size 1 - 4-pole		
Arc chute cover, for guide frame MO2, 3-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover,	Arc chute cover, for guide frame MO1, 4-pole (as spare part)	MO1-ZU	MO90AS42
Cover for arc chamber MO Size 2 - 4-pole (as spare part) MO2-ZU MO90A544 Arc chute cover, for guide frame MO2, 4-pole (as spare part) MO3-ZU MO90A548 Cover for arc chamber MO Size 3 - 3-pole MO90A538 MO90A538 Cover for arc chamber MO Size 3 - 4-pole (as spare part) MO3-ZU MO90A546 Shutter Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO9-ZU MO90A946 Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts MO90AP11 MO90AP11 Alarm and auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AP01 Ready to close signolling switch (as spare part) MO-ZU MO90AP01 Ready to close signolling switch (as spare part) MO-ZU MO90AP01 Shutt release 24VDC (as spare part) MO-ZU MO90AP01 Shutt release 24VDC (as spare part) MO-ZU MO90AP01 Under	Cover for arc chamber MO Size 2 - 3-pole		
Arc chute cover, for guide frame MO2, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 3-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AP46 Shutter Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP06 Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Additionally Auxiliary contacts Additionally Auxiliary contacts Additionally Auxiliary contacts Additionally Auxiliary contacts Additionally Auxiliary contacts (as spare part) MO2-ZU MO90AP01 Shutt risped signal switch (as spare part) MO2-ZU MO90AP01 Shutt risped signal switch (as spare part) MO2-ZU MO90AP01 Shutt risp and undervoltage release units Shutt release 110VDC / 110VAC (as spare part) MO2-ZU MO90AD01 Shutt release 24VDC (as spare part) MO2-ZU MO90AD05 Shutt release 22VDC / 230VAC (as spare part) MO2-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO2-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO2-ZU MO90AD06 MO90AD06 MO90AE06 MO90AE06 MO00AD06 MO00AD07 MO00AD07 MO00AD07 MO00AD08 MO00A	Arc chute cover, for guide frame MO2, 3-pole (as spare part)	MO2-ZU	MO90AS36
Cover for arc chamber MO Size 3 - 3-pole Arc chule cover, for guide frame MO3, 3-pole (as spare part) Arc chule cover, for guide frame MO3, 3-pole (as spare part) Arc chule cover, for guide frame MO3, 4-pole (as spare part) Arc chule cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90AS46 Shutter Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 3-pole, frame size 2 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 1 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP01 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AP01 Tripped signal switch (as spare part) MO-ZU MO90AP01 Shutt release 24VDC (as spare part) MO-ZU MO90AP01 Shutt release 24VDC (as spare part) MO-ZU MO90AD01 Shutt release 24VDC (as spare part) MO-ZU MO90AD05 Shutt release 22VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 MO90AE05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 MO90AE06 Mobror operator Molor operator Molor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part	Cover for arc chamber MO Size 2 - 4-pole		
Arc chute cover, for guide frame MO3, 3-pole (as spare part) Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) MO3-ZU MO90A\$46 Shutter Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP06 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NC+2NC (as spare part) MO-ZU MO90AP01 Ready to close signalling switch (as spare part) MO-ZU MO90AP01 Tripped signal switch (as spare part) MO-ZU MO90AP01 Shunt release 24VDC (as spare part) MO-ZU MO90AP01 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release part MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 MO90AE01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 MO90AE05 MO90AE06 Mobror operator Molor operator Molor operator Molor operator woole for draw-out circuit breaker, spare part MO-ZU MO90AE06 Molor operator Moloz Molor operator Moloz Molor operator Moloz Mol	Arc chute cover, for guide frame MO2, 4-pole (as spare part)	MO2-ZU	MO90AS44
Cover for arc chamber MO Size 3 - 4-pole Arc chute cover, for guide frame MO3, 4-pole (as spare part) Arc chute cover, for guide frame MO3, 4-pole (as spare part) Shutter 3-pole, frame size 1 (as spare part) MO90AP04 Shutter 3-pole, frame size 2 (as spare part) MO90AP06 Shutter 4-pole, frame size 2 (as spare part) MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AP01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AP01 Shurt release 24VDC (as spare part) MO-ZU MO90AD01 Shurt release 210VDC / 10VAC (as spare part) MO-ZU MO90AD05 Shurt release 22VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 MO90AE06 Mortor operator Molor operator Molor Operator (220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE04 MO90AE04 Molor operator Molor operator (220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE04 MO90AE04 Molor operator Molor operator (200-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE04 MO90AE04 Molor operator Molor operator (200-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE04 Mo90AE04 Molor operator Molor operator (200-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 MO90AE04 Molor operator Molor operator (200-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 MO90AE04 Molor operator	Cover for arc chamber MO Size 3 - 3-pole		
Arc chute cover, for guide frame MO3, 4-pole (as spare part) Shutter Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 3-pole, frame size 2 (as spare part) MO2-ZU MO90AP06 Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AP01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shutt release 24VDC (as spare part) MO-ZU MO90AD01 Shutt release 210VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shutt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE06 Mo1-ZU MO1-ZU MO9	Arc chute cover, for guide frame MO3, 3-pole (as spare part)	MO3-ZU	MO90AS38
Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 3-pole, frame size 2 (as spare part) MO2-ZU MO90AP06 Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts WO-ZU MO90AP11 Additionally Auxiliary contacts MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 24VDC (as spare part) MO-ZU MO90AD05 Shunt release 210VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 22VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 22VDC (as spare part) MO-ZU MO90AE06 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator MO-ZU MO90AE06 Motor ope	Cover for arc chamber MO Size 3 - 4-pole		
Shutter 3-pole, frame size 1 (as spare part) MO1-ZU MO90AP04 Shutter 3-pole, frame size 2 (as spare part) MO2-ZU MO90AP06 Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AF01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 230VDC / 230VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 Mechanical interlock Mechanical interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Arc chute cover, for guide frame MO3, 4-pole (as spare part)	MO3-ZU	MO90AS46
Shutter 3-pole, frame size 2 (as spare part) MO90AP06 Shutter 4-pole, frame size 1 (as spare part) MO90AP08 Shutter 4-pole, frame size 1 (as spare part) MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH01 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 22VDC / 230VAC (as spare part) MO-ZU MO90AD05 Shunt release 22VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Mo90AE06 Motor operator MO-ZU MO90AE06 Moor spare part MO-ZU MO90AE06	Shutter		
Shutter 4-pole, frame size 1 (as spare part) MO1-ZU MO90AP08 Shutter 4-pole, frame size 2 (as spare part) MO2-ZU MO90AP11 Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO2U MO90AG01 Ready to close signalling switch (as spare part) MO2U MO90AH01 Tripped signal switch (as spare part) MO2U MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO2U MO90AD01 Shunt release 22VDC / 230VAC (as spare part) MO2U MO90AD05 Shunt release 22VDC / 230VAC (as spare part) MO2U MO90AD06 Undervoltage release 24VDC (as spare part) MO2U MO90AD06 Undervoltage release 24VDC (as spare part) MO2U MO90AD06 MO90AE01 Undervoltage release 280-415VAC (as spare part) MO2U MO90AE05 MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO2U MO90AF04 Mechanical Interlock MO-ZU MO90AF05 MO90AF06 MO-ZU MO90AF06	Shutter 3-pole, frame size 1 (as spare part)	MO1-ZU	MO90AP04
Shutter 4-pole, frame size 2 (as spare part) Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AF01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220VDC / 200VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Moro operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Shutter 3-pole, frame size 2 (as spare part)	MO2-ZU	MO90AP06
Alarm and auxiliary contacts Additionally Auxiliary contacts 2NO+2NC (as spare part) MO-ZU MO90AG01 Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220VDC / 230VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 Mechanical interlock Mechanical Interlock Mo-ZU MO90AF05 MO90AF05 MO-ZU MO90AF05 MO90AF06	Shutter 4-pole, frame size 1 (as spare part)	MO1-ZU	MO90AP08
Additionally Auxiliary contacts 2NO+2NC (as spare part) Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD05 Undervoltage release 24VDC (as spare part) MO-ZU MO90AD06 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE01 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Shutter 4-pole, frame size 2 (as spare part)	MO2-ZU	MO90AP11
Ready to close signalling switch (as spare part) MO-ZU MO90AH01 Tripped signal switch (as spare part) MO-ZU MO90AH04 Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 Mechanical interlock Moo-ZU MO90AF04	Alarm and auxiliary contacts		
Tripped signal switch (as spare part) Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE04 Mechanical interlock Mechanical interlock Mo90AE06 MO-ZU MO90AE06	Additionally Auxiliary contacts 2NO+2NC (as spare part)	MO-ZU	MO90AG01
Shunt trips and undervoltage release units Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator Motor operator Moechanical interlock Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90A500 MO90A500 MO90A500 MO90A500 MO90A500	Ready to close signalling switch (as spare part)	MO-ZU	MO90AH01
Shunt release 24VDC (as spare part) MO-ZU MO90AD01 Shunt release 110VDC / 110VAC (as spare part) MO-ZU MO90AD05 Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 Moorou Mo90AE06	Tripped signal switch (as spare part)	MO-ZU	MO90AH04
Shunt release 110VDC / 110VAC (as spare part) Shunt release 220VDC / 230VAC (as spare part) MO-ZU MO90AD06 Undervoltage release 24VDC (as spare part) MO-ZU MO90AE01 Undervoltage release 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AE06 MoyoAE06 Motor operator, 220-250VDC / 208-240VAC (as spare part) MO-ZU MO90AF04 MoyoAF04 Mechanical interlock Mo-ZU MO90R550 Door sealing frame	Shunt trips and undervoltage release units		
Shunt release 220VDC / 230VAC (as spare part) Undervoltage release 24VDC (as spare part) Undervoltage release 220-250VDC / 208-240VAC (as spare part) Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) Mo-ZU MO90AF04 Mechanical interlock Mechanical interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Shunt release 24VDC (as spare part)	MO-ZU	MO90AD01
Undervoltage release 24VDC (as spare part) Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) Mo-ZU MO90AF04 Mo90AF04 Mechanical interlock Moenanical Interlock module for draw-out circuit breaker, spare part Mo90R550 Door sealing frame	Shunt release 110VDC / 110VAC (as spare part)	MO-ZU	MO90AD05
Undervoltage release 220-250VDC/208-240VAC (as spare part) MO-ZU MO90AE05 Undervoltage release 380-415VAC (as spare part) MO-ZU MO90AE06 Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) Mo-ZU MO90AF04 Mechanical interlock Mo-ZU MO90R550 Door sealing frame	Shunt release 220VDC / 230VAC (as spare part)	MO-ZU	MO90AD06
Undervoltage release 380-415VAC (as spare part) Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) Moechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part Moechanical Interlock module for draw-out circuit breaker, spare part Moechanical Interlock module for draw-out circuit breaker, spare part Moechanical Interlock module for draw-out circuit breaker, spare part Moechanical Interlock module for draw-out circuit breaker, spare part	Undervoltage release 24VDC (as spare part)	MO-ZU	MO90AE01
Motor operator Motor operator, 220-250VDC / 208-240VAC (as spare part) Mo-ZU Mo90AF04 Mechanical interlock Mo-ZU Mo90R550 Door sealing frame	Undervoltage release 220-250VDC/208-240VAC (as spare part)	MO-ZU	MO90AE05
Motor operator, 220-250VDC / 208-240VAC (as spare part) Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Undervoltage release 380-415VAC (as spare part)	MO-ZU	MO90AE06
Mechanical interlock Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Motor operator		
Mechanical Interlock module for draw-out circuit breaker, spare part MO-ZU MO90R550 Door sealing frame	Motor operator, 220-250VDC / 208-240VAC (as spare part)	MO-ZU	MO90AF04
Door sealing frame	Mechanical interlock		
	Mechanical Interlock module for draw-out circuit breaker, spare part	MO-ZU	MO90R550
Door sealing frame (as spare part) MO-ZU MO90AP01	Door sealing frame		
	Door sealing frame (as spare part)	MO-ZU	MO90AP01



Accessories, as spare parts

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Further accessories		
Undervoltage release 24VDC (as spare part)	MO-ZU	MO90AE01
Undervoltage release 220-250VDC/208-240VAC (as spare part)	MO-ZU	MO90AE05
Undervoltage release 380-415VAC (as spare part)	MO-ZU	MO90AE06
Motor operator, 220-250VDC / 208-240VAC (as spare part)	MO-ZU	MO90AF04
Ready to close signalling switch (as spare part)	MO-ZU	MO90AH01
Make connectors for circuit breakers	MO-ZU	MO90AB01
Auxiliary connector for frame and switch	MO-ZU	MO90AB03
Sliding contact module for guide frames	MO-ZU	MO90AB08

Guide frame 3-pole



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• Empty guide frame for spare feeders not assembled with ACB

MO901AC4

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Guide frame for MO1 3-pole 1000A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO901AC4
Guide frame for MO1 3-pole 1600A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO902AC4
Guide frame for MO1 3-pole 2000A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO902AC41
Guide frame for MO2 3-pole 2000A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO903AC4
Guide frame for MO2 3-pole 2500A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO904AC4
Guide frame for MO2 3-pole 3200A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO905AC4
Guide frame for MO3 3-pole 4000A horizontal, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO906AC4
Guide frame for MO3 3-pole 5000A horizontal, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO907AC4
Guide frame for MO3 3-pole 6300A vertical, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO908AD4



■ Guide frame 4-pole



Schrack-Info

• Empty guide frame for spare feeders not assembled with ACB

MO901BC4

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Guide frame for MO1 4-pole 1000A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO901BC4
Guide frame for MO1 4-pole 1600A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO902BC4
Guide frame for MO1 4-pole 2000A horizontal, 4 control contact blocks, size 1 (as spare part)	MO1-ZU	MO902BC41
Guide frame for MO2 4-pole 2000A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO903BC4
Guide frame for MO2 4-pole 2500A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO904BC4
Guide frame for MO2 4-pole 3200A horizontal, 4 control contact blocks, size 2 (as spare part)	MO2-ZU	MO905BC4
Guide frame for MO3 4-pole 4000A horizontal, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO906BC4
Guide frame for MO3 4-pole 5000A horizontal, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO907BC4
Guide frame for MO3 4-pole 6300A vertical, 4 control contact blocks, size 3 (as spare part)	MO3-ZU	MO908BD4

Converting set for MO from "fix installed" to "draw-out"

Schrack-Info

• Each "fixed" ACB can be converted to "draw-out" without additional space requirement

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Converting sets		
Converting set for MO1 3-pole, from fixed to draw-out	MO1-ZU	MO90BC11
Converting set for MO2 3-pole, from fixed to draw-out	MO2-ZU	MO90BC12
Converting set for MO3 3-pole, from fixed to draw-out	MO3-ZU	MO90BC13

Permissible uninterrupted current

As a factor of the ambient operating temperature with vertical or horizontal mounting

T	Vi	Ambient operating temperature				
Гуре	Version	up to 55°C	60°C	70°C		
MO1(-4)	·			•		
101/4) /20	Fixed-mounting	630	630	630		
MO1(-4)630	Withdrawable units	630	630	630		
101/1/ 000	Fixed-mounting	800	800	800		
MO1(-4)800	Withdrawable units	800	800	800		
101/4) 1000	Fixed-mounting	1000	1000	1000		
VIO 1 (-4) 1000	Withdrawable units	1000	1000	910 (1000)		
101/4) 1050	Fixed-mounting	1250	1250	1250		
MOT(-4)1250	Withdrawable units	1250	1250	1140 (1210)		
101/1/1/1/00	Fixed-mounting	1600	1600	1500 (1600)		
O1(-4)1000 V	Withdrawable units	1600	1600	1390 (1490)		
101/ 1) 0000	Fixed-mounting	2000	1930	1700 (1780)		
MOT(-4)2000	Withdrawable units	2000	1930	1700 (180)		
MO2(-4)			•			
MO2(-4)800	Fixed-mounting	800	800	800		
	Withdrawable units	800	800	800		
100/ 1) 1000	Fixed-mounting	1000	1000	1000		
MO2(-4)1000	Withdrawable units	1000	1000	1000		
100/ 1) 1050	Fixed-mounting	1250	1250	1250		
MO2(-4)1250	Withdrawable units	1250	1250	1250		
100/ 1/ 1/00	Fixed-mounting	1600	1600	1600		
MO2(-4)1600	Withdrawable units	1600	1600	1600		
100/ 1) 0000	Fixed-mounting	2000	2000	2000		
MO2(-4)2000	Withdrawable units	2000	2000	2000		
100/ 1) 0500	Fixed-mounting	2500	2500	2350 (2360)		
MO2(-4)2500	Withdrawable units	2500	2500	2220 (2280)		
1100/ 11 0000	Fixed-mounting	3200	3150	2910 (2940)		
MO2(-4)3200	Withdrawable units	3200	3070	2790 (2870)		
MO3(-4)						
100/ 11 1000	Fixed-mounting	4000	4000	4000		
MU3(-4)4000	Withdrawable units	4000	4000	4000		
100/ 1) 5000	Fixed-mounting	5000	5000	5000 (4860)		
MO3(-4)5000	Withdrawable units	5000	5000	5000 (4730)		
11001 11 1000	Fixed-mounting 6300 A (40°C)	6150	5910 (5970)	5610 (5670)		
AO2(-4)1000 AO2(-4)1250 AO2(-4)1600 AO2(-4)2000 AO2(-4)2500 AO2(-4)2500	Withdrawable units 6300 A (40°C)	5920	5810 (5900)	5400 (5500)		

Notes:

Values in parentheses: Black-painted copper rails, partly with reduced recommended conductor cross-sections



		MO1(-4)630		MO1(-4	MO1(-4)800)1000	
General Data		В	N	В	N	В	N	
Standards and regulations		1		IEC/EN 609	47, VDE 0660	•		
Climate resistance				IEC/EN 60	0068-2-30			
Ambient operating temperature	Storage		-40	– 70°C (devices	with LCD max. 55	5 °C)		
	Operation (open)		-25	– 70°C (devices	with LCD max. 55	5 °C)		
Mounting position			1	30° 30°	30° 30°			
Utilization category		В	В	В	В	В	В	
Degree of protection			IP20, IP41 wi	ith door sealing fro	ame, IP55 with sh	rouding cover		
Direction of power supply		1	-		ny			
Main Circuits		•						
Rated current = rated uninterrupted current $I_n = I_u$		630A	630A	800A	800A	1000A	1000A	
Rated impulse withstand voltage U _{imp}		12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	
Rated operational voltage U _n		690/ 1000VAC	690/ 1000VAC	690/ 1000VAC	690/ 1000VAC	690VAC	690VAC	
Use in IT networks up to U = 440 AC I_{IT}		23kA	23kA	23kA	23kA	23kA	23kA	
Use in IT networks up to U = 690 V I _{II} for 1000V versions only		MO-4 ETU 15, 25 are not suitable for IT networks without overload protection in 4th pole						
Overvoltage protection/pollution degree		111/3	III/3	III/3	III/3	111/3	III/3	
Rated insulation voltage U ₁		1000V	1000V	1000V	1000V	1000V	1000V	
Switching Capacity								
	up to 500V 50/60Hz	121 kA	145kA	121 kA	145kA	121 kA	145kA	
Rated short-circuit breaking capacity value Icm	up to 690V 50/60Hz	88kA	105kA	88kA	105kA	88kA	105kA	
	1000V 50/60Hz	-	-	-	-	-	-	
	t = 0.5s	55kA	66kA	145kA	66kA	55kA	66kA	
Rated short-time withstand current 50/60 Hz Icw	t = 1s	42kA	50kA	42kA	50kA	42kA	50kA	
Raica siloit iiiilo wiiiistalia corrolli 50/ 50 112 lew	t = 2s	29kA	35kA	29kA	35kA	29kA	35kA	
	t = 3s	24kA	29kA	24kA	29kA	24kA	29kA	
rated short-circuit breaking capacity value Icn					1			
	up to 500V 50/60Hz	55kA	66kA	55kA	66kA	55kA	66kA	
IEC/EN 60947 Switching sequence Icu O-t-CO	up to 690V 50/60Hz	42kA	50kA	42kA	50kA	42kA	50kA	
	up to 1000V 50/60Hz	-	-	-	-	-	-	
	up to 500V 50/60Hz	55kA	66kA	55kA	66kA	55kA	66kA	
IEC/EN 60947 Switching sequence Ics O-t-CO-t-CO	up to 690V 50/60Hz	42kA	50kA	42kA	50kA	42kA	50kA	
	up to 1000V 50/60Hz	-	-	-	-	-	-	



0 10.			MO1(-4	1)630	MO1(-4	1)800	MO1(-4	1)1000	
General Data			В	N	В	N	В	N	
	Total disconnecting time ¹⁾		38ms	38ms	38ms	38ms	38ms	38ms	
	ON time ²⁾		35ms	35ms	35ms	35ms	35ms	35ms	
	ON time electrical (via closing r	elease)3)	80ms	80ms	80ms	80ms	80ms	80ms	
Switching times	OFF time electrical (via shunt-/urelease)4)	ındervoltage	<i>7</i> 3ms	73ms	73ms	<i>7</i> 3ms	73ms	<i>7</i> 3ms	
	OFF time via control electronics circuit release) 5)	(non-delayed short-	50ms	50ms	50ms	50ms	50ms	50ms	
	mechanical, no maintenance	operations	10000	10000	10000	10000	10000	10000	
	mechanical, maintenance ⁶⁾	operations	20000	20000	20000	20000	20000	20000	
Service life	electrical, no maintenance	operations	10000	10000	10000	10000	10000	10000	
	electrical, maintenance ⁶⁾	operations	20000	20000	20000	20000	20000	20000	
	1000V version	operations	-	_	-	-	_	_	
Maximum operating	version 690V	operations/h	60	60	60	60	60	60	
cycles	version 1000V	operations/h	-	_	-	-	_	_	
Power loss at rated cur	rent in at	permanent installation	100W	100W	100W	100W	100W	100W	
3-phase symmetrical lo	oad	withdrawable units	195W	195W	195W	195W	195W	195W	
Weight					•		•		
December 11 and 11 and 12	3-pole		43kg	43kg	43kg	43kg	43kg	43kg	
Permanent installation	4-pole		50kg	50kg	50kg	50kg	50kg	50kg	
Withdrawable units	3-pole		70kg	70kg	70kg	70kg	70kg	70kg	
vvimarawable units	4-pole		84kg	84kg	84kg	84kg	84kg	84kg	
Conductor cross-section	ns								
	permanent installation	blank	1x40x10mm	1x40x10mm	1x50x10mm	1x50x10mm	1x60x10mm	1x60x10mm	
Cu rails	permaneni insiananon	black	1x40x10mm	1x40x10mm	1x60x10mm	1x60x10mm	1x60x10mm	1x60x10mm	
Cu ruiis	withdrawable units	blank	1x40x10mm	1x40x10mm	1x50x10mm	1x50x10mm	1x60x10mm	1x60x10mm	
	Williarawable Units	black	1x40x10mm	1x40x10mm	1x50x10mm	1x50x10mm	1x60x10mm	1x60x10mm	

Notes:

¹⁾ Time of mechanical bending until contact separation + static average of the arc quenching time.

²⁾ Time of mechanical bending until main contact closes.

 $^{^{3)}}$ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5 \leq ED): 50 ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

⁵⁾ Except releases for ETU15 system protection: 85 ms.

^{6) &#}x27;Maintenance' means: Replace main switch and arcing chamber elements

Consent Data		MO1(-4)1250	MO1(-4)1600	MO1(-4)2000
General Data		В	N	В	N	В	Ν
Standards and regulations				IEC/EN 609	47, VDE 0660		
Climate resistance				IEC/EN 60	0068-2-30		
Ambient operating temperature	Storage		-40	– 70°C (devices	with LCD max. 5	55°C)	
	Operation (open)		-25	– 70°C (devices	with LCD max. 5	55°C)	
Mounting position			≠	30° 30°	30° 30		
Utilization category		В	В	В	В	В	В
Degree of protection			IP20, IP41 wit	h door sealing fr	ame, IP55 with s	hrouding cover	
Direction of power supply				а	ny		
Main Circuits							
Rated current = rated uninterrupted current $I_n = I_u$		1250 A	1250 A	1600 A	1600 A	2000 A	2000 A
Rated impulse withstand voltage U _{imp}		12000V AC	12000V AC	12000V AC	12000V AC	12000V AC	12000V AC
Rated operational voltage U _n		690V AC	690V AC	690V AC	690V AC	690V AC	690V AC
Use in IT networks up to U = 440 AC I _{IT}		23kA	23kA	23kA	23kA	23kA	23kA
Use in IT networks up to U = 690 V I _{IT} for 1000V versions only							
Overvoltage protection/pollution degree		111/3	111/3	III/3	111/3	III/3	III/3
Rated insulation voltage U ₁		1000V	1000V	1000V	1000V	1000V	1000V
Switching Capacity							
	up to 500V 50/60Hz	121kA	145kA	121 kA	145kA	121 kA	145kA
Rated short-circuit breaking capacity value Icm	up to 690V 50/60Hz	88kA	105kA	88kA	105kA	88kA	105kA
	1000V 50/60Hz	-	-	-	-	-	_
	t = 0.5s	55kA	66kA	55kA	66kA	55kA	66kA
Rated short-time withstand current 50/60 Hz Icw	t = 1s	42kA	50kA	42kA	50kA	42kA	50kA
,	t = 2s	29kA	35kA	29kA	35kA	29kA	35kA
	t = 3s	24kA	29kA	24kA	29kA	24kA	29kA
Rated short-circuit breaking capacity value Icn			1		1		
	up to 500V 50/60Hz	55kA	66kA	55kA	66kA	55kA	66kA
IEC/EN 60947 Switching sequence Icu O-t-CO	up to 690V 50/60Hz	42kA	50kA	42kA	50kA	42kA	50kA
	up to 1000V 50/60Hz	_	-	-	-	-	_
	up to 500V 50/60Hz	55kA	66kA	55kA	66kA	55kA	66kA
IEC/EN 60947 Switching sequence Ics O-t-CO-t-CO	up to 690V 50/60Hz	42kA	50kA	42kA	50kA	42kA	50kA
	up to 1000V 50/60Hz	-	-	-	-	-	_



General Data			MO1(-4)1250	MO1(-4)1600	B ms 38ms ms 35ms ms 80ms ms 73ms ms 50ms ms 50ms ms 50ms ms 50ms ms 200 10000 00 15000 00 7500 00 15000 1000 00 60 20 W 240W 440W W 440W My 4	-4)2000	
General Dara			В	N	В	N	В	N	
	Total disconnecting time ¹⁾		38ms	38ms	38ms	38ms	38ms	38ms	
	ON time ²⁾		35ms	35ms	35ms	35ms	35ms	35ms	
Switching times	ON time electrical (via closing re	lease) ³⁾	80ms	80ms	80ms	80ms	80ms	80ms	
3wiidiing iinies	OFF time electrical (via shunt-/ur	dervoltage release)4)	73 ms	73ms	73ms	<i>7</i> 3ms	73 ms	<i>7</i> 3ms	
	OFF time via control electronics (r circuit release) 5)	non-delayed short-	50ms	50ms	50ms	50ms	50ms	50ms	
	mechanical, no maintenance	operations	10000	10000	10000	10000	10000	10000	
	mechanical, maintenance ⁶⁾	operations	20000	20000	20000	20000	15000	15000	
Service life	electrical, no maintenance	operations	10000	10000	10000	10000	<i>7</i> 500	7500	
	electrical, maintenance ⁶⁾	operations	20000	20000	20000	20000	15000	15000	
	1000V version	operations	-	_	-	-	1000	1000	
Maximum operating	version 690V	operations/h	60	60	60	60	60	60	
cycles	version 1000V	operations/h	-	_	-	-	20	20	
Power loss at rated curre	ent In at	permanent installation	105W	105W	150W	150W	240W	240W	
3-phase symmetrical loc	ad	withdrawable units	205W	205W	350W	350W	440W	440W	
Weight					•		•		
Permanent installation	3-pole		43kg	43kg	43kg	43kg	43kg	43kg	
rermanent installation	4-pole		50kg	50kg	50kg	50kg	50kg	50kg	
Withdrawable units	3-pole		70kg	70kg	70kg	70kg	70kg	70kg	
vvitnarawable units	4-pole		84kg	84kg	84kg	84kg	84kg	84kg	
Conductor cross-section	s								
	permanent installation	blank	2x40x10mm	2x40x10mm	2x50x10mm	2x50x10mm	3x50x10mm	3x50x10mm	
Cu rails	permanent installation	black	2x40x10mm	2x40x10mm	2x50x10mm	2x50x10mm	3x50x10mm	3x50x10mm	
Cu ruiis	withdrawable units	blank	2x40x10mm	2x40x10mm	2x50x10mm	2x50x10mm	3x50x10mm	3x50x10mm	
	williarawable units	black	2x40x10mm	2x40x10mm	2x50x10mm	2x50x10mm	3x50x10mm	3x50x10mm	

¹⁾ Time of mechanical bending until contact separation + static average of the arc quenching time.

²⁾ Time of mechanical bending until main contact closes.

 $^{^{3)}}$ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5 \leq ED): 50 ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.
5) Except releases for ETU15 system protection: 85 ms.

⁶⁾ 'Maintenance' means: Replace main switch and arcing chamber elements

	l Mo	02(-4)8	300	Мо	2(-4)10	000	мо	2(-4)12	250	МО	2(-4)1	600
General Data	В	N	Н	В	N	Н	В	N	Н	В	N	Н
Standards and regulations					IEC	/EN 6094	47, VDE 06	60				
Climate resistance					I	EC/EN 60	0068-2-30)				
Ambient operating temperature	İ											
Storage	İ				40 – 70°C	(devices	with LCD m	nax. 55 °C	<u> </u>			
Operation (open)	İ			-	25 – 70°C	(devices	with LCD m	nax. 55 °C	<u>:)</u>			
Mounting position					30° 3 ⋅	80° ×	★ 30°	30°				
Main Circuits												
Utilization category							3					
Degree of protection				IP20, IP41	with door	sealing fr	ame, IP55	with shrou	ding cover	-		
Direction of power supply						aı	ny					
Rated current = rated uninterrupted current $I_n = I_u$	800A	800A	800A	1000A	1000A	1000A	1250A	1250A	1250A	1600A	1600A	1600A
Rated impulse withstand voltage U _{imp}	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V
Rated operational voltage U _e	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /
	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC
Use in IT networks up to U = 440 AC I _{IT}	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Use in IT networks up to U = 690 V $I_{\rm IT}$ for 1000V versions only for 1000V versions only $^{1)}$	-	-	50 kA	-	ı	50 kA	ı	ı	50 kA	ı	ı	50 kA
Overvoltage protection/pollution degree	111/3	111/3	111/3	111/3	III/3	III/3	III/3	III/3	111/3	III/3	III/3	111/3
Rated insulation voltage U ₁	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V
Switching Capacity												
Rated short-circuit breaking capacity value Icm												
up to 500 V 50/60Hz	145kA	176kA	220kA	145kA	176kA	220kA	145kA	176kA	220kA	145kA	176kA	220kA
up to 690 V 50/60Hz	105kA	165kA	187kA	105kA	165kA	187kA	105kA	165kA	187kA	105kA	165kA	187kA
1000V 50/60Hz	-	-	105kA	-	-	105kA	-	-	105kA	-	-	105kA
Rated short-time withstand current 50/60 Hz Icw												
t = 0.5s	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA
t = 1s	55kA	66kA	80kA	55kA	66kA	80kA	55kA	66kA	80kA	55kA	66kA	80kA
t = 2s	39kA	46kA	65kA	39kA	46kA	65kA	39kA	46kA	65kA	39kA	46kA	65kA
t = 3s	32kA	44kA	50kA	32kA	44kA	50kA	32kA	44kA	50kA	32kA	44kA	50kA
Rated short-circuit breaking capacity value Icn												
IEC/EN 60947 Switching sequence I _{cu} O-t-CO												
up to 500V 50/60Hz	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA
up to 690V 50/60Hz	50kA	75kA	85kA	50kA	75kA	85kA	50kA	<i>7</i> 5kA	85kA	50kA	75kA	85kA
up to 1000V 50/60Hz	-	-	50kA	-	-	50kA	-	-	50kA	-	-	50kA
IEC/EN 60947 Switching sequence I _{cs} O-t-CO-t-CO												
up to 500V 50/60Hz	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA
up to 690V 50/60Hz	50kA	<i>7</i> 5kA	85kA	50kA	75kA	85kA	50kA	<i>7</i> 5kA	85kA	50kA	<i>7</i> 5kA	85kA
up to 1000V 50/60Hz	-	-	50kA	-	-	50kA	-	-	50kA	-	-	50kA



B N H B N H B N H B N H B N H B N H H H H		MO2(-4)2000 MO2(-4			2(-4)2500		MO2(-4)3200		MO3(-4)				
	General Data										4000		6300
EEC/EN 60048-2-30 Ambient operating temperature		В	N	Н	В					Н	Н	Н	Н
Ambient operating temperature							<i>'</i>						
Ado - 70°C devices with ICD max. 55°C						l	EC/EN 6	0068-2-30	0				
Main Circuits	, , ,	ļ											
Mounting position	Storage									-			
Main Circuits P20, IP41 with door sealing frome, IP55 with shrouding cover P30 P41 with door sealing frome, IP55 with shrouding cover P40 P41 with door sealing frome, IP55 with shrouding cover P40 P41 with door sealing frome, IP55 with shrouding cover P40 P41 with door sealing frome, IP55 with shrouding cover P40 P41 with door sealing frome, IP55 with shrouding cover P40 P41 with door sealing frome, IP55 with shrouding cover P40 P41	Operation (open)				-	25 – 70°	C (devices	with LCD r	max. 55°C	:)			
Begree of protection P2O, IP41 with door sealing frome, IP55 with shrouding cover P3O, IP41 with door sealing frome, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud value P3O, IP50 with shroud v	Mounting position				!	30° 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0°	★ \30°	30°]			
P20, P41 with door sealing frame, P55 with shrouding cover	Main Circuits	_											
Direction of power supply	Utilization category							_					
Rated current = rated uninterrupted current	Degree of protection				IP20, IP41	with door	sealing fr	ame, IP55	with shrou	ding cover			
Rated impulse withstand voltage U 2000V 12000V 12	Direction of power supply						а	ny					
Rated operational voltage U_s 690V 690	Rated current = rated uninterrupted current $I_n = I_u$	2000A	2000A	2000A	2500A	2500A	2500A	3200A	3200A	3200A	4000A	5000A	6300A
1000AC 1	Rated impulse withstand voltage U _{imp}	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V	12000V
Use in IT networks up to U = 440 AC I; 50kA 5	Rated operational voltage U _e	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /
Use in IT networks up to U = 690V I _{IT} for 1000V versions only only for 1000V versions only only for 1000V versions only only oversions on		1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC	1000AC
only - - -	Use in IT networks up to U = 440 AC I _{IT}	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
only for 1000V versions only 1	Use in IT networks up to U = 690V I _{IT} for 1000V versions	İ		50LA	İ		50LA	İ		501 4	50LA	50LA	50LA
	only	-	_	JUKA	-	_	JUKA	_	-	JUKA	JUKA	JUKA	JUKA
Rated insulation voltage U₁ 1000V 1	for 1000V versions only ¹⁾												
Switching Capacity Rated short-circuit breaking capacity value Icm Up to 500 V 50/60Hz 145kA 176kA 220kA 145kA 176kA 220kA 145kA 176kA 220kA	Overvoltage protection/pollution degree	III/3	III/3	III/3	III/3	III/3	III/3	111/3	III/3	III/3	III/3	III/3	111/3
Reted short-circuit breaking capacity value Icm up to 500 V 50/60Hz up to 500 V 50/60Hz 105kA 165kA 187kA 105kA 165kA 187kA 105kA 165kA 187kA 105kA 187kA 105kA 187kA 187kA 187kA 187kA 187kA 187kA 100kA	Rated insulation voltage U ₁	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V
up to 500 V 50/60Hz 145kA 176kA 220kA 145kA 176kA 220kA 145kA 176kA 220kA 120kA 20kA	Switching Capacity												
up to 690 V 50/60Hz	Rated short-circuit breaking capacity value Icm												
Tool Tool	up to 500 V 50/60Hz	145kA	176kA	220kA	145kA	176kA	220kA	145kA	176kA	220kA	220kA	220kA	220kA
Rated short-time withstand current 50/60Hz lcw t = 0.5s	up to 690 V 50/60Hz	105kA	165kA	187kA	105kA	165kA	187kA	105kA	165kA	187kA	187kA	187kA	187kA
t = 0.5s	1000V 50/60Hz	-	-	105kA	-	-	105kA	-	-	105kA	105kA	105kA	105kA
t = 1s	Rated short-time withstand current 50/60Hz Icw												
# = 2s	t = 0.5s	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	100kA	100kA	100kA
t = 3s	t = 1s	55kA	66kA	80kA	55kA	66kA	80kA	55kA	66kA	80kA	100kA	100kA	100kA
Rated short-circuit breaking capacity value Icn IEC/EN 60947 Switching sequence I _{co} O-t-CO up to 500V 50/60Hz do 66kA 80kA 100kA 66kA 80kA 100kA 66kA 80kA 10	t = 2s	39kA	46kA	65kA	39kA	46kA	65kA	39kA	46kA	70kA	80kA	80kA	80kA
IEC/EN 60947 Switching sequence I _{co} O-t-CO up to 500V 50/60Hz by to 500V 50/60Hz complete for the first of the first	t = 3s	32kA	44kA	50kA	32kA	44kA	50kA	32kA	44kA	65kA	65kA	65kA	65kA
up to 500V 50/60Hz	Rated short-circuit breaking capacity value Icn		•										
up to 690V 50/60Hz	IEC/EN 60947 Switching sequence I _{cu} O-t-CO												
up to 1000V 50/60Hz	up to 500V 50/60Hz	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	100kA	100kA	100kA
IEC/EN 60947 Switching sequence c_s O-t-CO-t-CO	up to 690V 50/60Hz	50kA	75kA	85kA	50kA	75kA	85kA	50kA	75kA	85kA	85kA	85kA	85kA
up to 500V 50/60Hz 66kA 80kA 100kA 66kA 80kA 100kA 66kA 80kA 100kA	up to 1000V 50/60Hz	-	-	50kA	-	-	50kA	-	-	50kA	50kA	50kA	50kA
up to 500V 50/60Hz 66kA 80kA 100kA 66kA 80kA 100kA 66kA 80kA 100kA	IEC/EN 60947 Switching sequence I _{cs} O-t-CO-t-CO	İ			•			•			•		
up to 690V 50/60Hz 50kA 75kA 85kA 50kA 75kA 85kA 85kA 85kA 85kA 85kA 85kA 85kA	up to 500V 50/60Hz	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA	100kA	100kA	100kA
	up to 690V 50/60Hz	50kA	75kA	85kA	50kA	75kA	85kA	50kA	75kA	85kA	85kA	85kA	85kA
	up to 1000V 50/60Hz	1 -	_	50kA	-	_	50kA	-	_	50kA	50kA	50kA	50kA

Note: 1) The following are not suitable for IT networks: MO-4 ETU 15, 25 without overload protection in 4th pole.



■ Switching times, service life, maximal operating cycles, weight, conductor cross-sections MO

		M	02(-4)8	00	Mo	02(-4)10	000	MC	2(-4)12	250	MO2(-4)1600		
		В	N	Н	В	N	Н	В	N	Н	В	N	Н
Switching times													
Switching times ¹⁾							73	ms					
ON time ²⁾							100	Oms					
ON time, electrical (via closing	release) ³⁾						100	Oms					
On-off switch, electrical (via sh	unt/undervoltage						73	ms					
OFF time via control electronics short-circuit-solution) ⁵⁾	s (non-delayed						50	ms					
Service life													
mechanical, w/o maintenance	operations	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
mechanical, with maintenance	operations	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000
electrical, w/o maintenance	operations	<i>7</i> 500	7500	7500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	<i>7</i> 500
electrical, with maintenance	operations	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000
Version 1000V	operations	> 1000	> 1000	> 1000	> 1000	> 1000	> 1000	> 1000	> 1000	> 1000	>1000	>1000	>1000
Maximum operating cycles									•				
Version 690V	operations/h	60	60	60	60	60	60	60	60	60	60	60	60
Version 1000V	operations/h	-	-	20	-	-	20	-	-	20	-	-	20
Power loss at rated current In													
at 3-phase symmetrical load													
Fixed-mounting		40W	40W	40W	45W	45W	45W	80W	80W	80W	85W	85W	85W
Withdrawable units		85W	85W	85W	95W	95W	95W	165W	165W	165W	175W	175W	175W
Weight													
Fixed-mounting													
3-pole		56kg	56kg	56kg	56kg	56kg	56kg	56kg	56kg	56kg	56kg	56kg	56kg
4-pole		67kg	67kg	67kg	67kg	67kg	67kg	67kg	67kg	67kg	67kg	67kg	67kg
Withdrawable units													
3-pole		91 kg	91 kg	91 kg	91 kg	91 kg	91 kg	91 kg	91 kg	91kg	91 kg	91 kg	91kg
4-pole		109kg	109kg	109kg	109kg	109kg	109kg	109kg	109kg	109kg	109kg	109kg	109kg
Conductor cross-sections													
Cu busbar													
Fixed-mounting (mm)													
	blank		1x50x10			1x60x10			2x40x10			2x50x10	
	black		1x50x10			1x60x10			2x40x10			2x50x10	
Withdrawable units (mm)													
	blank		1x50x10			1x60x10			2x40x10			2x50x10	
	black		1x50x10			1x60x10			2x40x10			2x50x10	

Notes

¹⁾ Time of mechanical bending until contact separation + static average of the arc quenching time.

²⁾ Time of mechanical bending until main contact closes.

³⁾ Time from application of voltage until closing of main contacts. ON time with overexcited closing release ($5 \le ED$): 50ms

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

⁵⁾ Except releases for ETU 15 system protection: 85ms.

⁶⁾ 'Maintenance' means: Replace main switch and arcing chamber elements

Switching times, service life, maximal operating cycles, weight, conductor cross-sections MO

		١	0/4\ 0		١	0/4\ 0		1,,,,,,	4) 000	0/4000\		MO3(-4)	
		MO	2(-4)2	2000	MO	2(-4)2	300	MO2(-2	4)320	0(4000)	4000	5000	6300
		В	N	Н	В	N	Н	В	N	Н	Н	Н	Н
Switching times													
Switching times ¹⁾								73	ms				
ON time ²⁾								100	Oms				
ON time, electrical (via closing	release)3)							100	Oms				
On-off switch, electrical (via shi release) ⁴⁾	unt/undervoltage							73	ms				
OFF time via control electronics short-circuit-solution) ⁵⁾	(non-delayed							50	ms				
Service life		•											
mechanical, w/o maintenance	operations	10000	10000	10000	10000	10000	10000	10000	10000	10000	5000	5000	5000
mechanical, with maintenance	operations	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
electrical, w/o maintenance	operations	<i>7</i> 500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	7500	4000	4000	4000	2000	2000	2000
electrical, with maintenance	operations	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
Version 1000V	operations	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000
Maximum operating cycles		•			•			•					
Version 690V	operations/h	60	60	60	60	60	60	60	60	60	60	60	60
Version 1000V	operations/h	-	_	20	-	-	20	-	-	20	20	20	20
Power loss at rated current I _n at 3-phase symmetrical load		-						-					
Fixed-mounting		180W	180W	180W	270W	270W	270W	410W	410W	410W	520W	630W	900W
Withdrawable units		320W	320W	320W	520W	520W	520W	710W	710W	710W	810W	1050W	1600W
Weight													
Fixed-mounting													
3-pole		56kg	56kg	56kg	59kg	59kg	59kg	64kg	64kg	64kg	82kg	82kg	90kg
4-pole		67kg	67kg	67kg	<i>7</i> 1kg	71 kg	71 kg	77kg	77kg	77kg	99kg	99kg	108kg
Withdrawable units													
3-pole		91 kg	91 kg	91 kg	102kg	102kg	102kg	113kg	113kg	113kg	148kg	148kg	166kg
4-pole		109kg	109kg	109kg	123kg	123kg	123kg	136kg	136kg	136kg	190kg	190kg	227kg
Conductor cross-sections								•					
Cu rail													
Fixed-mounting (mm)													
	blank		3x50x10)	:	2×100×10)	,	3×100×1	0	4x100x10	5x100x10	6x120x10
	black		3x50x10)	:	2×100×10)	;	3×100×1	0	4x100x10	5×100×10	6x120x10
Withdrawable units (mm)					•							•	
	blank		3x50x10)	:	2×100×10)	;	3×100×1	0	4x100x10	5x100x10	6x120x10
	black		3x50x10)	:	2x100x10)	;	3×100×1	0	4x100x10	5x100x10	6x120x10

¹¹ Time of mechanical bending until contact separation + static average of the arc quenching time.

 $^{^{\}mbox{\scriptsize 2)}}$ Time of mechanical bending until main contact closes.

 $^{^{3)}}$ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5 \leq ED): 50ms

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

⁵⁾ Except releases for ETU15 system protection: 85ms.

⁶⁾ 'Maintenance' means: Replace main switch and arcing chamber elements

■ Control electronics MO

	MO + ETU15	MO1/2 + ETU25	MO3 + ETU25	MO1/2 + ETU45	MO3 + ETU45	MO1/2 + ETU76	MO3 + ETU76
Overload protection L							
Setting range I _r	0.5 - 1.0 x I _n	0.4 - 1.0 x I _n	0.4 - 1.0 x I _n	0.4 - 1.0 x l ₀	0.4 - 1.0 x l _n	0.4 - 1.0 x l ₀	0.4 - 1.0 x l _n
Time-delay t, at							
6 x l,	10s	10s	10s	_	_	_	_
6 x I _r at time-lag class setting on I ²⁾ t	_	-	-	2 - 30s	2 – 30s	2 – 30s	2 – 30s
6 x I _r at time-lag class setting on I ⁴⁾ t	_	_	_	1 – 5s	1 – 5s	1 – 5s	1 – 5s
Phase sensitivity	_	only at t _{sd} =20 (m	otor contactor)ms	only at t _{sd} =20 (me	otor contactor)ms	ON/OFF via in	ternal system bus
thermal memory	_	_	_	switches	s on/off	switche	s on/off
Tolerance	Protecti	ve features to IEC/EN	N 60947		Current inc Neasurement function	to IEC/EN 60947 licator ≤ 5% n, basic variables ≤ 1 derived variables ≤ 2	
ZSI feature	_	-	_	Ор	tion	Ор	tion
Short-circuit protection, short time-d	elayed S			'			
Setting range I _{sd}	_	1.25 -	· 12 x I _n	1.25 -	12 x I _n	1.25 x ln – 0.8 x	I _{cw} (max. 0.8 x I _{cw})
Time delay sd	_	1 ' '	tactor), 100, 200, 400ms	,	r), 100, 200, 300, s, OFF	20, 100, 200, 300, 2000, 3000,	0, 400, 500, 1000 4000ms, OFF
I ²⁾ t at 12 x I _n	_	_	_	100, 200, 300	0, 400ms, OFF	100, 200, 300	0, 400ms, OFF
Short circuit protection, non-delayed	d I	1					
Can be deactivated	_	_	-	OFF ²⁾	OFF ²⁾	OFF via menu/ Comm ²⁾	OFF via menu/ Comm ²⁾
Setting range I _i	2 - 8 x I _n	≥ 20 x I _n (n	nax. 50 kA)	1.5 x I _n - 0.8	x I _{cs} (max. 0.8	1.5 x I _n - 0.8	x I _{cs} (max. 0.9
Tolerance: g 0 + 20%				x Ics), OFF: I	$_{cs} = I_{cw} (0.5 s)$	x Ics), OFF: I	$_{cs} = I_{cw} (0.5 s)$
N-conductor protection N							
Setting range	-		0 % of I _n with slide switch	1 %, 10 switches on/off	0 % of In with slide switch	· '	MM 50 % up to % of I _n
Earth-fault protection G	•			•			
	_	Ор	tion	module can be	e fitted by user	module can b	e fitted by user
Setting range of tripping current \mathbf{I}_{g} for the release	-	OFF, 100, 300, 600, 900, 1200A	OFF, 400, 600, 800, 1000, 1200A	OFF, 100, 300, 600, 900, 1200A	OFF, 400, 600, 800, 1000, 1200A	100-1200A	400–1200A
Setting range of tripping current $I_{\rm g}$ or the alarm	-	-	-	100, 300, 600, 900, 1200A	400, 600, 800, 1000, 1200A	100-1200A	400–1200A
Time delay t _g	-	100, 200, 30	0, 400, 500ms	100, 200, 300), 400, 500ms	100	500ms
Time delay at I ²⁾ t	_		_	100, 200, 300), 400, 500ms	100	500ms
Trigger feature	-	switche	s on/off	switches	s on/off	switche	s on/off
Alarm feature	_	-	_	-	-	switche	s on/off
ZSI feature	-	-		Ор	tion	Ор	tion
Senses ground fault current via total current converter with internal or external N conductor converter	-	yes	yes	yes, switchable		yes, sw	itchable
Senses ground fault current via external protective conductor converter	-	_	-	yes, sw	itchable	yes, sw	itchable
Notes:	1						

2) When the I release has tripped, the rated breaking capacity of the circuit breaker drops to Ics = Icw.
For the overcurrent release ETU45, 76 it is not possible to trip the short time-delayed short-circuit protection, setting tsd = OFF, and the non-delayed short-circuit protection unit, Ii = OFF at the same time! If at tsd = OFF, the setting Ii = OFF is selected, an internal correction to Ii = 1.5 x In will take place automatically.



Auxiliary contact, voltage release MO

■ Technical data - Auxiliary contacts

	Standard auxiliary contact	ON ready indicator	Trip-indicating contacts	Position indicator contact- switch
Rated insulation voltage U _i			-	
AC	500VAC	_	_	440VAC
DC	500VAC	-	_	250VAC
Rated operational voltage U _e	500VAC	220VAC	230VAC	440VAC
	220V DC	220V DC	230V DC	250V DC
Rated impulse withstand voltage U _{imp}	4 kV	_	_	4 kV
Short-circuit protection			'	
Max. safety fuse	10A gL	2A gL	6A gL	8A gL
Fuse less	BM-C10/1	-	_	BM-C6/1
Rated short-circuit breaking capacity	,		-	· · · · · · · · · · · · · · · · · · ·
AC-12				
24 – 230V	10A	_	_	_
110/127V	10A	0.14A	_	13A
220/230V	10A	0.1A	6A	13A
400V	10A	_	-	-
500V	10A	_	_	_
AC-15				
24 – 230V	4A	_	_	_
110/127V	4A	_	_	5A
220/230V	4A	_	_	4A
400V	3A	_	_	3A
440V	-		_	3A
500V	2A	_	_	-
DC-12	277		+	
24V	10A	0.2A	6A	13A
30V	-	-		10A
48V	8A		_	2.5A
110V	3.5A		0.4A	0.8A
220V	1A	0.1A	0.2A	0.6A
DC-13	10	V.1A	0.27	0.0A
24V	8A	_	_	3A
48V	4A			-
100V	1.2A		_	_
220/250V	0.4A		_	0.1A
400V	-		_	-
DC-15	-		-	_
24V	10A		_	_
48V	4A	-		
110V	1.2A			
220V	0.4A			
Conductor cross-sections	U.4A		-	_
Flexible without end sleeve	210.5. 2.512	210.5. 2.512	210.5. 2.512	210.5. 2.512
	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²	$2 \times (0.5 - 2.5) \text{mm}^2$
Flexible with end sleeve	2 x (0.5 – 1.5)mm ²	$2 \times (0.5 - 1.5) \text{mm}^2$	2 x (0.5 – 1.5)mm ²	2 x (0.5 - 1.5)mm ²

Note - Conductor cross-sections: Standard connection, spring-loaded connections



Auxiliary contact, voltage release MO

■ Technical data - Voltage release

		Shunt release		Under volto	ige release
	Shunt release f	or switching ON	Shunt release for	Shunt release fo	r switching OFF
	Shorii release i	or switching Ort	switching OFF	time-delayed	not time-delayed
	100% duty cycle	5% duty cycle	100% duty cycle	t = 0.2 - 3.2s	t = 200ms
Rated control voltage U _s					
AC 50/60Hz	110, 230V	110-127, 208-240V	110, 230V	110-127, 208 -240, 380-415V	110-127, 208-240, 380-415V
DC	24, 30, 48, 60, 110, 220V	24, 48, 110-125, 220- 250V	24, 30, 48, 60, 110, 220V	48, 110-125, 220-250V	24, 30, 48, 60, 110- 125, 220-250V
Power consumption					
AC 50/60Hz	15VA	15VA	15VA	5VA (pull-in 200)	5VA (pull-in 200)
DC	15W	15W	15W	5W (pull-in 200)	5W (pull-in 200)
Response time of circuit breaker	80ms	50ms	73ms	80ms non-delayed, otherwise as per Time delay	80ms non-delayed, otherwise as per Time delay
Minimum command time	60ms	25ms	60ms	-	-
Operating range					
Drop-out voltage x U _s	-	_	-	0.35 - 0.7	0.35 – 0.7
Pick-up voltage x U _s	0.85 - 1.1	0.85 - 1.1	0.85 – 1.1	0.85 – 1.1	0.85 - 1.1
Extended operating range for battery operation	n				
Pick-up voltage x U _s	0.7 – 1.26	0.7 – 1.26	0.7 – 1.26	0.85 – 1.26	0.85 - 1.26
Short-circuit protection					
Diazed fuse (gL)	1 A TDz (slow)	1 A TDz (slow)			
Miniature circuit-breaker with C characteristics	1A	1A	1A	1A	1A
Conductor cross-sections					
Fine-wired without end sleeve	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²	2 x (0.5 - 2.5)mm ²
Fine-wired with end sleeve	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²	2 x (0.5 - 1.5)mm ²

Note - Conductor cross-sections: Standard connection, spring-loaded connections Rated operational voltage. Undervoltage release: Pull-in power AC 200 VA /DC 200 W

Motor operator

	24-30DC	48-60DC	110AC/DC	230AC/220DC
Rated control voltage U _s				
AC 50/60Hz	-	-	110 – 125V	208 – 250V
DC	24 – 30V	48 – 60V	110 – 127V	220 – 225V
Operating range x U,	0.85 - 1.1V	0.85 - 1.1V	0.85 - 1.1V	0.85 - 1.1V
Extended operating range for battery operation 24V up to 220VDC x U _s	0.7 – 1.26V	0.7 – 1.26V	0.7 – 1.26V	0.7 – 1.26V
Required time for charging stored energy mechanism at 1 x U _s	≤ 10s	≤ 10s	≤ 10s	≤ 10s
Stanutin as assument	19.3A (24VDC)	7.6A (48VDC)	8.8A (110VAC)	3.9A (220VAC)
Starting current	24.5A (30VDC)	11.6A (60VDC)	7A (110VDC)	2.6A (220VDC)
Power consumption				
AC 50/60Hz	110VA	110VA	110VA	110VA
DC	110W	110W	110W	110W
Short-circuit protection				
Diazed fuse (gL)	2A TDz (slow)	2A TDz (slow)	2A TDz (slow)	2A TDz (slow)
Miniature circuit breaker with C characteristics	1A	1A	1A	1A
Conductor cross-sections				
Fine-wired without end sleeve	2 x (0.5 – 2.5)mm ²	2 x (0.5 - 2.5)mm ²	2 x (0.5 – 2.5)mm ²	2 x (0.5 – 2.5)mm ²
Fine-wired with end sleeve	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²	2 x (0.5 – 1.5)mm ²

Note

Conductor cross-sections: Standard connection, spring-loaded connections



External dimensions, door cut-outs MO

Safe clearances to de-energized parts

	M	01		MO2			моз	
Rated operational voltage	440VAC	690VAC	440VAC	690VAC	1000VAC	440VAC	690VAC	1000VAC
Fixed-mounted system	•						•	•
above control circuit plug	150mm	300mm	250mm	600mm	430mm	<i>7</i> 5mm	500mm	430mm
on side (each)	20mm	50mm	50mm	100mm	100mm	20mm	100mm	100mm
rear	20mm	125mm	20mm	140mm	125mm	20mm	125mm	125mm
Withdrawable units							•	•
without cover for arcing chamber								
above control circuit plug	150mm	300mm	250mm	600mm	350mm	50mm	500mm	350mm
on side (each)	20mm	50mm	50mm	100mm	100mm	20mm	100mm	100mm
rear	14mm	14mm	14mm	30mm	14mm	14mm	14mm	14mm
with cover for arcing chamber							•	•
above control circuit plug	14mm	14mm	14mm	14mm	_	14mm	14mm	_
on side (each)	100mm	100mm	50mm	225mm	_	50mm	200mm	_
rear	14mm	14mm	14mm	14mm	-	14mm	14mm	-

Safe clearances to earthed parts

	M	01		MO2			моз	
Rated operational voltage	440VAC	690VAC	440VAC	690VAC	1000VAC	440VAC	690VAC	1000VAC
Fixed-mounted system								•
above control circuit plug	75mm ¹⁾	75mm ¹⁾	75mm ¹⁾	75mm ¹⁾	180mm	75mm ¹⁾	75mm ¹⁾	180mm
on side (each)	Omm	Omm	Omm	Omm	Omm	Omm	Omm	Omm
rear	Omm	Omm	Omm	Omm	Omm	Omm	Omm	Omm
Withdrawable units	•							•
without cover for arcing chamber								
above control circuit plug	50mm ¹⁾	50mm ¹⁾	50mm ¹⁾	50mm ¹⁾	100mm	50mm ¹⁾	50mm ¹⁾	100mm
on side (each)	Omm	Omm	Omm	Omm	Omm	Omm	Omm	Omm
rear	Omm	Omm	Omm	Omm	Omm	Omm	Omm	Omm
with cover for arcing chamber								•
above control circuit plug	Omm	Omm	Omm	Omm		Omm	Omm	_
on side (each)	Omm ²⁾	Omm ²⁾	Omm ²⁾	Omm ²⁾		Omm ²⁾	Omm ²⁾	-
rear	Omm	Omm	Omm	Omm		Omm	Omm	_

Notes:

All safe clearances above the switch are measured to the upper edge of the control circuit plug – and not to the upper edge of the arcing chamber! See dimensioned drawings.

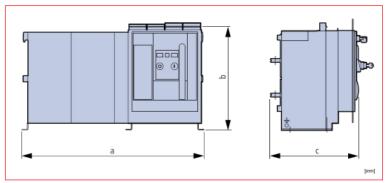


¹⁾ Value for plate; 0mm for brace and grid

 $^{^{2)}}$ 40mm (MO2...: 70mm) for plates which conceal the side openings in the guide frame.

External dimensions, door cut-outs MO

Dimensions MO

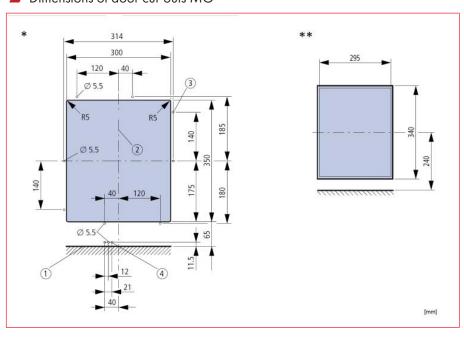


	Fix	ed-mount	ing	Withdrawable units				
	а	b	c ¹⁾	а	b	c ¹⁾		
MO1	320	434	357	320	460	471		
MO2	460	434	357	460	460	471		
МО3	704	434	357	704	460	471		
MO1 – 4	410	434	357	410	460	471		
MO2 – 4	590	434	357	590	460	471		
MO2 – 4	914	434	357	914	460	471		

i) Including dimension for horizontal connection.

Height "b" to upper edge of control circuit plug in screw termination for circuit breaker/ switch disconnector with Ue ≤ 690V. See detail drawing for deviations for Ue = 1000V.

Dimensions of door cut-outs MO



- * Door cutout for control panel using door sealing frame
- **Door cutout with edge protection Cutout after assembling edge protection
- 1) Mounting surface
- 2) Centre of IZM/IN control panel
- 3) 8 mounting bores for door sealing frame
- 4) 3 mounting bores for door interlock

General data switch disconnector MO

■ General data Switch disconnector MO1

		MO1(-4)-630		MO1(-4)-800		MO1(-4)-1000		MO1 (-4)-1250		MO1(-4)-1600		MO1(-4	l)-2000
		В	N	В	N	В	N	В	N	В	N	В	N
Standards and regulations		IEC/EN 60947, VDE 0660											
Climate resistance		IEC/EN 60068-2-30											
Ambient temperature							,						
Storage							-40	+70°C					
Operation (open)		-25 +70°C											
Mounting position						30° 3 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅ 1 ⋅	800	★ \30°	30°				
Utilization category							E	3					
Degree of protection		IP20, IP41 with door sealing frame, IP55 with shrouding cover											
Direction of power supply		any											
								,					
Rated current = rated uninterrupt	red current I _n = I _v	630A	630A	800A	800A	1000A	1000A	1250A	1250A	1600A	1600A	2000A	2000A
Rated impulse withstand voltage								OVAC					
Rated operational voltage U _e		690 / 1000VAC											
Overvoltage protection/pollutio	n degree						III,						
Rated insulation voltage U _i		1000V											
<u></u>								,,,,					
Rated short-circuit breaking cape	acity values I												
up to 500V 50/60Hz	and the second	121 kA	145kA	121 kA	145kA	121 kA	145kA	121 kA	145kA	121 kA	145kA	121 kA	145kA
up to 690V 50/60Hz			105kA	88kA	105kA	88kA	105kA	88kA	105kA	88kA	105kA	88kA	105kA
1000V 50/60Hz		88kA 105kA 88kA 105kA 88kA 105kA 88kA 105kA 88kA 105kA 88kA 105kA											
Rated short-time withstand curre	ent 50 / 60 Hz I												
t = 0.5s		55kA	66kA	55kA	66kA	55kA	66kA	55kA	66kA	55kA	66kA	55kA	66kA
t = 1s		42kA	50kA	42kA	50kA	42kA	50kA	42kA	50kA	42kA	50kA	42kA	50kA
t = 2s		29kA	35kA	29kA	35kA	29kA	35kA	29kA	35kA	29kA	35kA	29kA	35kA
t = 3s		24kA	29kA	24kA	29kA	24kA	29kA	24kA	29kA	24kA	29kA	24kA	29kA
Switching times		2 110 1		2	27.01	2	27101	2 (27.01	2	27.00	2 1.0 1	27101
Total disconnecting time ¹⁾							3.8	ms					
ON time ²		38ms 35ms											
ON time electrical (via closing release) ³⁾							80						
OFF time, electrical (via shunt- /													
undervoltage release) ⁴⁾		73ms											
Service life													
mechanical, no maintenance operations		10000											
mechanical, with maintenance ⁵⁾ operations		20000											
mechanical, no maintenance operations		10000											
electrical, with maintenance ⁵⁾ operations		20000											
version 1000V operations		-											
Maximum operating cycles													
version 690V operations /h		60											
version 1000V	operations /h												
Power loss at rated current													
at 3-phase symmetrical load													
Fixed-mounting		100W 105W 150W 240W 24								240W			
Withdrawable units		195W 205W 350W 440W							440W				
N-t				.,,								1	1

Notes

■ Weights and terminal capacities MO1

O		1					
		MO1(-4)-630	MO1(-4)-800	MO1(-4)-1000	MO1(-4)-1250	MO1(-4)-1600	MO1(-4)-2000
Weight		•				•	•
Fixed-mounting	3-pole	43kg	43kg	43kg	43kg	43kg	43kg
	4-pole	50kg	50kg	50kg	50kg	50kg	50kg
Withdrawable units	3-pole	70kg	70kg	70kg	70kg	70kg	70kg
	4-pole	84kg	84kg	84kg	84kg	84kg	84kg
Conductor cross-section	ons	•					
Cu busbar							
Fixed-mounting							
blank		1x40x10mm	1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm
black		1x40x10mm	1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm
Withdrawable units		•					
blank		1x40x10mm	1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm
black		1x40x10mm	1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm



 $^{^{1)}}$ Time of mechanical bending until contact separation + static average of the arc quenching time.

 $^{^{\}rm 2)}$ Time of mechanical bending until main contact closes.

³ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5% ED): 50ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

Maintenance' means: Replace elements of main switch and arcing chambers.

General data switch disconnector MO

■ General data Switch disconnector MO2

	MO2(-4)-800				MO2(-4)-1000)	MO2(-4)-1250					
	В	N	н	В	N	Н	В	N	Н			
Standards and regulations				IEC/E	N 60947 VDE	0660						
Climate resistance	IEC/EN 60068-2-30											
Ambient temperature					,							
Storage					(-)40+70°C							
Operation (open)	(-)25+70°C											
Mounting position Utilization category	30° 30° 30°											
· · · · · · · · · · · · · · · · · · ·			IDOO ID	اد الند		5 F						
Degree of protection	IP20, IP41 with door sealing frame, IP55 with shrouding cover											
Direction of power supply					any							
Rated current = rated uninterrupted current I _n = I _u	800A	800 A	800 A	1000 A	1000 A	1000 A	1250 A	1250 A	1250 A			
Rated impulse withstand voltage U _{imp}	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC			
Rated operational voltage U _e	690V	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /			
kalea operalional vollage 0	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC			
Overvoltage protection/pollution degree	III/	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3			
Rated insulation voltage U _i	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V			
Rated short-circuit breaking capacity valup to 500V 50/60Hz	lues I _{cm}	176kA	220kA	145kA	176kA	220kA	145kA	176kA	220kA			
up to 690V 50/60Hz	105kA	165kA	187kA	105kA	165kA	187kA	105kA	165kA	187kA			
1000V 50/60Hz	_	_	105kA	_	_	105kA	_	_	105kA			
Rated short-time withstand current 50/6	0 Hz I	1		1	1							
t=0.5s	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA			
t=1s	55kA	66kA	80kA	55kA	66kA	80kA	55kA	66kA	80kA			
t=2s	39kA	46kA	65kA	39kA	46kA	65kA	39kA	46kA	65kA			
t=3s	32kA	44kA	50kA	32kA	44kA	50kA	32kA	44kA	50kA			
Switching times	OZIO	7-10 (00.01	02.01	1 440 (30101	02.01	7-10 (30101			
Total disconnecting time ¹⁾	34ms	34ms	34ms	34ms	34ms	34ms	34ms	34ms	34ms			
ON time ²⁾	35ms	35ms	35ms	35ms	35ms	35ms	35ms	35ms	35ms			
ON time electrical (via closing release) ³⁾	80ms	80ms	80ms	80ms	80ms	80ms	80ms	80ms	80ms			
OFF time, electrical (via shunt-/undervoltage release) ⁴	73ms	73ms	73ms	73ms	73ms	73ms	73ms	73ms	73ms			
Service life		1	I	1	I.		I	I	1			
mechanical, no maintenance operations	10000	10000	10000	10000	10000	10000	10000	10000	10000			
mechanical, with maintenance ⁵¹ operations	15000	15000	15000	15000	15000	15000	15000	15000	15000			
mechanical, no maintenance operations	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	7500			
electrical, with maintenance operations	15000	15000	15000	15000	15000	15000	15000	15000	15000			
version 1000V operations	-	-	1000	-	-	1000	-	-	1000			
Maximum operating cycles		1		1	1		I	ı	1			
version 690V operations /h	60	60	60	60	60	60	60	60	60			
version 1000V operations /h	-	-	20	-	-	20	-	-	20			
Power loss at rated current at 3-phase sy				1	I .		I	1				
Fixed-mounting	40W	40W	40W	45W	45W	45W	80W	80W	80W			
Withdrawable units	85W	85W	85W	95W	95W	95W	165W	165W	165W			
N	1 0011	1 33 11	0011	, , , , , ,	,,,,,,	, , , , ,	100 **	10011	10011			

Notes:

Switching capacity in $N\ pole$

= 60%

¹⁾ Time of mechanical bending until contact separation + static average of the arc quenching time.

 $^{^{\}rm 2)}$ Time of mechanical bending until main contact closes.

³⁾ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5% ED): 50ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

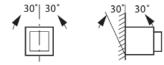
^{5) &#}x27;Maintenance' means: Replace elements of main switch and arcing chambers.

General data switch disconnector MO

General data Switch disconnector MO2, MO3

	MO2(-4)-1600			MO2(-4)-2000			MO2(-4)-2500		
	В	N	Н	В	N	Н	В	N	Н
Standards and regulations		IEC/EN 60947, VDE 0660							
Climate resistance		IEC/EN 60068-2-30							
Ambient temperature									
Storage	(-)40+70°C								
Operation (open)					(-)25+70°C				

Mounting position



Utilization category		В							
Degree of protection			IP20, IP	41 with door se	aling frame, IP:	55 with shroudi	ng cover		
Direction of power supply					any				
	_								
Rated current = rated uninterrupted current I _n = I _u	1600A	1600A	1600A	2000A	2000A	2000A	2500A	2500A	2500A
Rated impulse withstand voltage U _{imp}	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC
D-td	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /	690V /
Rated operational voltage U _e	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC
Overvoltage protection/pollution degree	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	111/3
Rated insulation voltage U _i	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V
Rated short-circuit breaking capacity values	I _{cm}								
up to 500V 50/60Hz	145kA	176kA	220kA	145kA	176kA	220kA	145kA	176kA	220kA
up to 690V 50/60Hz	105kA	165kA	187kA	105kA	165kA	187kA	105kA	165kA	187kA
up to 1000V 50/60Hz	-	-	105kA	-	-	105kA	-	-	105kA
Rated short-time withstand current 50/60 H	z I _{cw}								
t=0.5s	66kA	80kA	100kA	66kA	80kA	100kA	66kA	80kA	100kA
t=1s	55kA	66kA	80kA	55kA	66kA	80kA	55kA	66kA	80kA
t=2s	39kA	46kA	65kA	39kA	46kA	65kA	39kA	46kA	65kA
t=3s	32kA	44kA	50kA	32kA	44kA	50kA	32kA	44kA	50kA
Switching times									
Total disconnecting time ¹⁾	34ms	34ms	34ms	34ms	34ms	34ms	34ms	34ms	34ms
ON time ²⁾	35ms	35ms	35ms	35ms	35ms	35ms	35ms	35ms	35ms
ON time electrical (via closing release) ³⁾	80ms	80ms	80ms	80ms	80ms	80ms	80ms	80ms	80ms
OFF time, electrical (via shunt- / undervoltage release) ⁴	73ms	<i>7</i> 3ms	73ms	<i>7</i> 3ms	<i>7</i> 3ms	<i>7</i> 3ms	<i>7</i> 3ms	<i>7</i> 3ms	<i>7</i> 3ms
Service life	10000	10000	10000	10000	10000	10000	10000	10000	10000
mechanical, no maintenance operations	15000	15000	15000	15000	15000	15000	15000	15000	15000
mechanical, with maintenance ⁵⁾ operations	<i>7</i> 500	<i>7</i> 500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500	7500	<i>7</i> 500	<i>7</i> 500
mechanical, no maintenance operations	15000	15000	15000	15000	15000	15000	15000	15000	15000
electrical, with maintenance ⁵⁾ operations	-	-	1000	-	-	1000	-	-	1000
version 1000V operations									
Maximum operating cycles	60	60	60	60	60	60	60	60	60
version 690V operations/h	-	-	20	-	-	20	-	-	20
version 1000V operations/h									
Power loss at rated current									
at 3-phase symmetrical load									
Fixed-mounting	85W	85W	85W	180W	180W	180W	270W	270W	270W
Withdrawable units	175W	175W	175W	320W	320W	320W	520W	520W	520W
Notes:									

Switching capacity in N pole

= 60%

Time of mechanical bending until contact separation + static average of the arc quenching time.

 $^{\rm 2)}$ Time of mechanical bending until main contact closes.

 $^{3)}$ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5% ED): 50ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

⁵⁾ 'Maintenance' means: Replace elements of main switch and arcing chambers.



General data switch disconnector MO

General data Switch disconnector MO2, MO3

	1400/4/4000				MO3(-4)-			
		MO2(-4)-400	,	4000	4000 5000 630 H H H H VDE 0660 8-2-30 0°C			
	В	N	Н	Н	Н	Н		
Standards and regulations	IEC/EN 60947 VDE 0660							
Climate resistance			IEC/EN 6	0068-2-30				
Ambient temperature								
Storage			(-)40	.+70°C				
Operation (open)			(-)25	.+70°C				
Mounting position		≠ 3	0° 30°	30 3				
Utilization category				В				
Degree of protection		IP20, IP41 with	door sealing f	ame, IP55 with	shrouding cove	r		
Direction of power supply			a	ny				
Rated current = rated uninterrupted current	3200A	3200A	3200A	4000A	5000A	6300A		

Rated current = rated uninterrupted current $I_n = I_u$	3200A	3200A	3200A	4000A	5000A	6300A
Rated impulse withstand voltage U _{imp}	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC	12000VAC
Rated operational voltage U.	690V /	690V /	690V /	690V /	690V /	690V /
karea operational voltage 0 _e	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC
Overvoltage protection/pollution degree	III/3	III/3	III/3	III/3	III/3	III/3
Rated insulation voltage U _i	1000V	1000V	1000V	1000V	1000V	1000V

Rated short-circuit breaking capacity values I,

up to 500V 50/60Hz	145kA	176kA	220kA	220kA	220kA	220kA
up to 690V 50/60Hz	105kA	165kA	187kA	187kA	187kA	187kA
up to 1000V 50/60Hz	_	-	105kA	105kA	105kA	105kA

Rated short-time withstand current 50/60 Hz I_{cw}

66kA	80kA	100kA	100kA	100kA	100kA
55kA	66kA	80kA	100kA	100kA	100kA
39kA	46kA	70kA	80kA	80kA	80kA
32kA	44kA	65kA	65kA	65kA	65kA
34ms	34ms	34ms	34ms	34ms	34ms
35ms	35ms	35ms	35ms	35ms	35ms
80ms	80ms	80ms	80ms	80ms	80ms
<i>7</i> 3ms	73ms	73ms	<i>7</i> 3ms	73ms	73ms
10000	10000	10000	5000	5000	5000
15000	15000	15000	10000	10000	10000
4000	4000	4000	2000	2000	2000
15000	15000	15000	10000	10000	10000
-	_	1000	1000	1000	1000
60	60	60	60	60	60
-	-	20	20	20	20
	55kA 39kA 32kA 32kA 34ms 35ms 80ms 73ms 10000 15000 4000 15000 -	55kA 66kA 39kA 46kA 32kA 44kA 34ms 34ms 35ms 35ms 80ms 80ms 73ms 73ms 10000 10000 15000 15000 4000 4000 15000 15000	55kA 66kA 80kA 39kA 46kA 70kA 32kA 44kA 65kA 34ms 34ms 34ms 35ms 35ms 35ms 80ms 80ms 80ms 73ms 73ms 73ms 10000 10000 10000 15000 15000 15000 4000 4000 4000 15000 15000 15000 - - 1000	55kA 66kA 80kA 100kA 39kA 46kA 70kA 80kA 32kA 44kA 65kA 65kA 34ms 34ms 34ms 34ms 35ms 35ms 35ms 35ms 80ms 80ms 80ms 80ms 73ms 73ms 73ms 73ms 10000 10000 10000 5000 15000 15000 15000 10000 4000 4000 4000 2000 15000 15000 15000 10000 - - 1000 1000 60 60 60 60	55kA 66kA 80kA 100kA 100kA 39kA 46kA 70kA 80kA 80kA 32kA 44kA 65kA 65kA 65kA 34ms 34ms 34ms 34ms 34ms 35ms 35ms 35ms 35ms 80ms 80ms 80ms 80ms 80ms 80ms 80ms 80ms 73ms 73ms 73ms 73ms 73ms 73ms 10000 10000 10000 5000 5000 15000 15000 10000 10000 4000 4000 4000 2000 2000 15000 10000 10000 10000 10000 - - 1000 1000 1000 1000 1000

Power loss at rated current at 3-phase symmetrical load

Fixed-mounting	410W	410W	410W	520W	630W	900W
Withdrawable units	710W	710W	710W	810W	1050W	1600W
·						

Switching capacity in N pole

¹⁾ Time of mechanical bending until contact separation + static average of the arc quenching time.

²¹ Time of mechanical bending until main contact closes.
³¹ Time from application of voltage until closing of main contacts. ON time with overexcited closing release (5% ED): 50ms.

⁴⁾ Time from applying voltage to separation of contact + static average of arcing.

^{5) &#}x27;Maintenance' means: Replace elements of main switch and arcing chambers.

■ General data switch disconnector MO

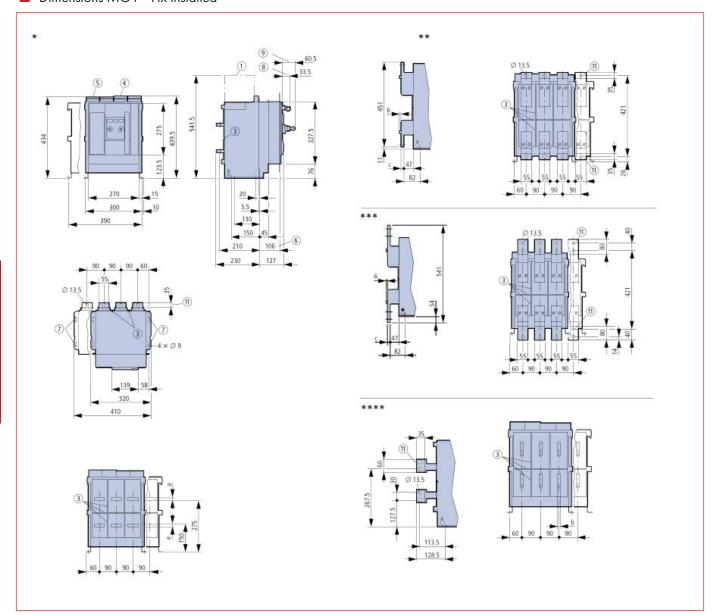
■ Weights and terminal capacities MO2, MO3

		MO2(-4)-800	MO2(-4)-1000	MO2(-4)-1250	MO2(-4)-1600	MO2(-4)-2000	MO2(-4)-2500	MO2(-4)-3200	MO2(-4)-4000
Weight									
Fr I e	3-pole	56kg	56kg	56kg	56kg	56kg	59kg	64kg	64kg
Fixed-mounting	4-pole	67kg	67kg	67kg	67kg	67kg	<i>7</i> 1 kg	77kg	<i>77</i> kg
Withdrawable units	3-pole	91kg	91kg	91 kg	91 kg	91 kg	102kg	113kg	113kg
vvitnarawabie units	4-pole	109kg	109kg	109kg	109kg	109kg	123kg	136kg	136kg
Conductor cross-sect	ions								
Cu busbar									
Fixed-mounting									
blank		1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm	2x100x10mm	3x100x10mm	4x120x10mm
black		1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm	2x100x10mm	3x100x10mm	4x100x10mm
Withdrawable units									
blank		1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm	2x100x10mm	3x100x10mm	4x120x10mm
black		1x50x10mm	1x60x10mm	2x40x10mm	2x50x10mm	3x50x10mm	2x100x10mm	3x100x10mm	4x100x10mm
		-							
		MO3(-4)-4000	MO3(-4)-5000	MO3(-4)-6300					
Weight					-				

		MO3(-4)-4000	MO3(-4)-5000	MO3(-4)-6300
Weight				
E:	3-pole	82kg	82kg	90kg
Fixed-mounting	4-pole	99kg	99kg	108kg
Withdrawable units	3-pole	148kg	148kg	166kg
	4-pole	190kg	190kg	227kg
Conductor cross-sec	tions			
Cu busbar				
Fixed-mounting				
blank		4x100x10mm	6x100x10mm	6x120x10mm
black		4x100x10mm	6x120x10mm	6x120x10mm
Withdrawable units				
blank		4x100x10mm	6x100x10mm	6x120x10mm
black		4x100x10mm	6x100x10mm	6x120x10mm



Dimensions MO1 - Fix installed



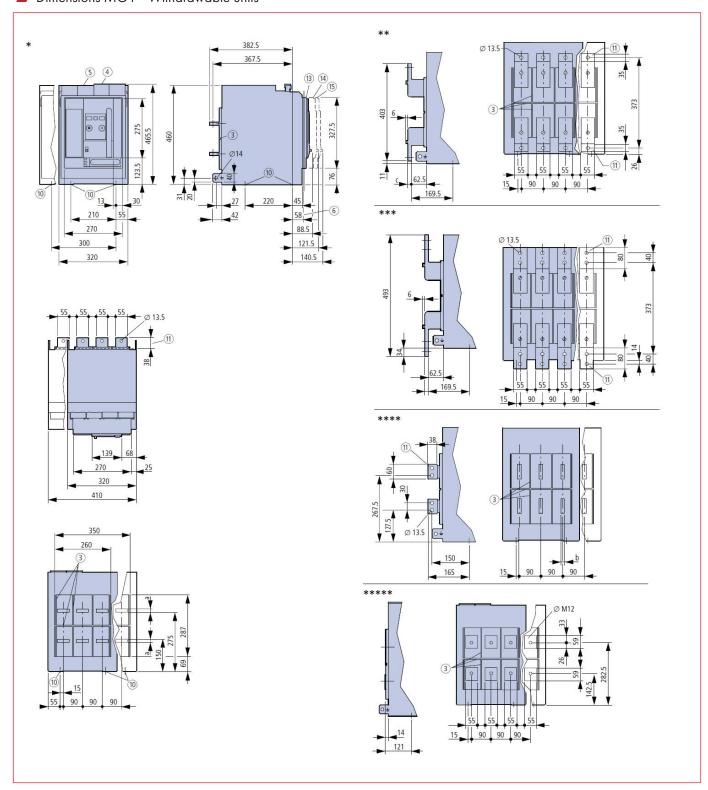
- * Standard design, horizontal connection
- Optional connection features:
- ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting) to DIN 43 673
- * * * * Vertical connection
- 1) Mounting space for removing of arcing chamber covers
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 8) Interlock in OFF (optional accessory)
- 9) Key operation (optional accessory)
- 11) Connection area

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.

Rated current I _U	а	b	c
up to 1000A	10	10	10
1250 - 2000A	15	15	15



■ Dimensions MO1 - Withdrawable units





 * Standard design, horizontal connection

- Optional connection features:

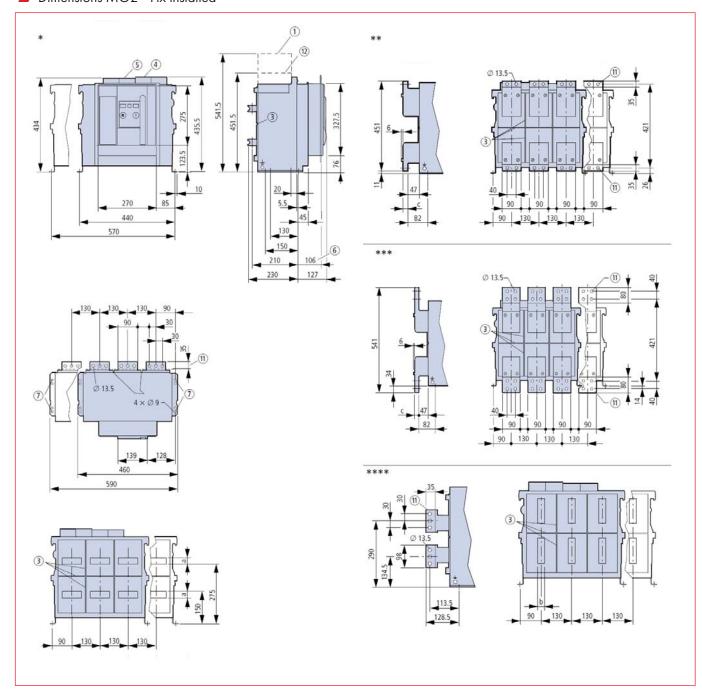
 ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting) to DIN 43 673
- **** Vertical connection
- **** Flange connection
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 13) MO in connected position
- 14) MO in test position
- 15) MO in disconnected position

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.

Rated current I _U	а	b	c
up to 1000A	10	10	10
1250 - 2000A	15	15	15



Dimensions MO2 - Fix installed





* Standard design, horizontal connection

- Optional connection features:

 ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting) to DIN 43 673
- **** Vertical connection
- 1) Mounting space for removing of arcing chamber covers

With $U_{\rm e}$ = 1000V, 175mms are required for removing of the arcing chamber.

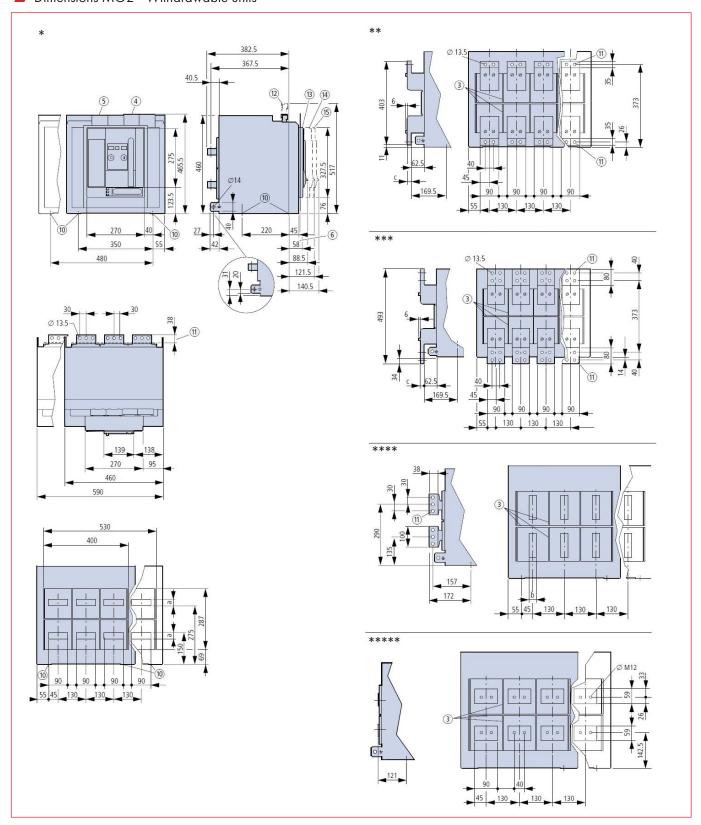
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.

Rated current I _U	а	b	с
up to 2000A	10	10	10
2500A	15	15	20
3200A	30	30	20



■ Dimensions MO2 - Withdrawable units







* Standard design, horizontal connection

- Optional connection features:

 ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting) to DIN 43 673
- **** Vertical connection
- **** Flange connection

With $U_{\rm e}$ = 1000V, 175mm are required for removal of the arcing chamber.

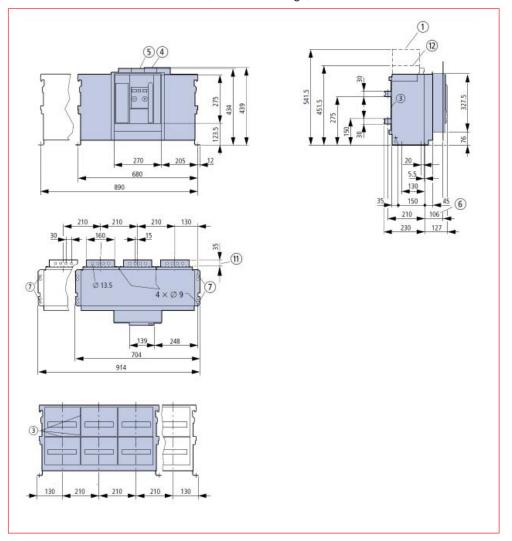
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in connected position
- 14) MO in test position
- 15) MO in disconnected position

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.

Rated current I _U	а	ь	c
up to 2000A	10	10	10
2500A	15	15	20
3200A	30	30	20



■ Dimensions MO3 - Fix installed, standard design, horizontal connection



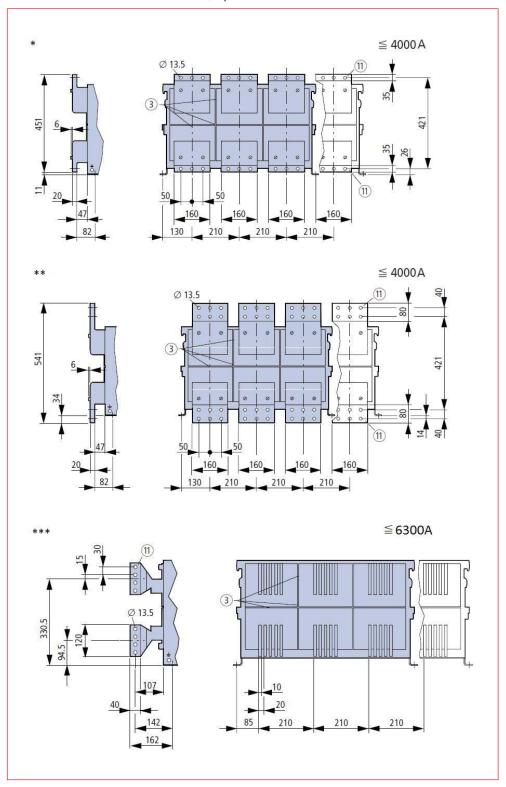
Standard design, horizontal connection $\leq 5000A$

- 1) Mounting space for removing of arcing chamber covers
- With U_e = 1000V, 175mm are required for removal of the arcing chamber.
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 7) Fixing points for the circuit-breaker in the system
- 11) Connection area
- 12) Circuit breaker top edge- AC-1000V version only

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.



Dimensions MO3 - Fix installed, optional connection features



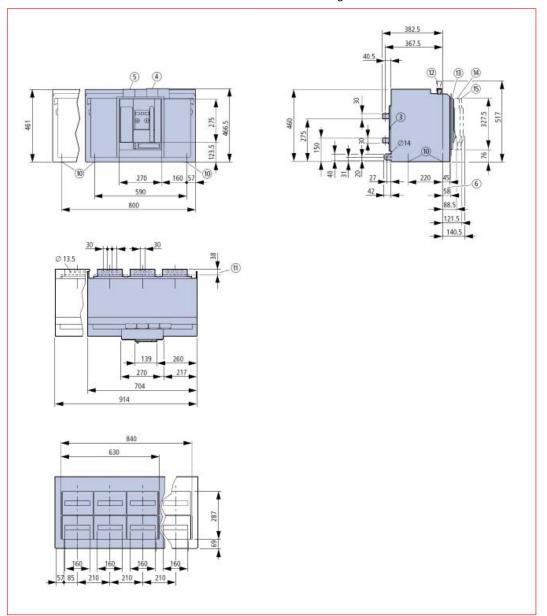
Optional connection features:

- ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting)

 *** Vertical connection
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system $\,$
- 11) Connection area



■ Dimensions MO3 - Withdrawable units, standard design, horizontal connection



Standard design, horizontal connection ≤ 5000 A

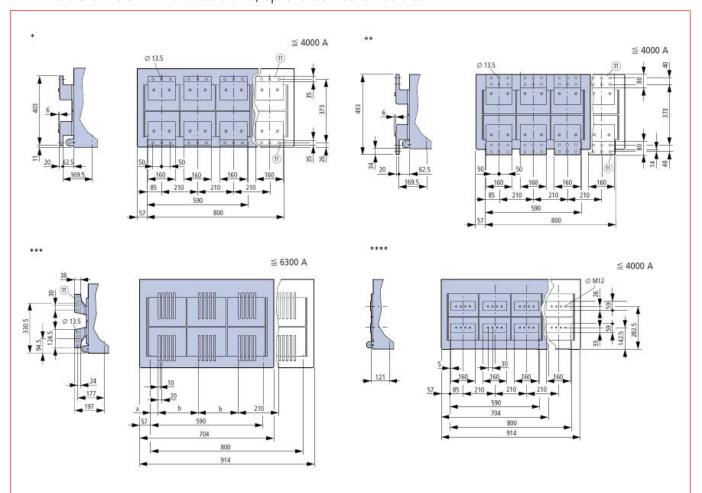
- 3) Slots (4mm wide, 5mm deep) for supporting phase partitions in the system
- 4) Control circuit plug, screw terminals
- 5) Control circuit plug, spring terminals
- 6) Dimension to inside of closed switchgear door
- 10) Fixing holes, Ø 10mm
- 11) Connection area
- . 12) Circuit breaker top edge- AC-1000V version only
- 13) MO in connected position
- 14) MO in test position
- 15) MO in disconnected position

When front connections are used, a partition between busbar and arcing space must be fitted on the system side.

Rated current I _U	а	b
4000A	40	210
5000A	40	210
6300A	5	245



■ Dimensions MO3 - Withdrawable units, optional connection features



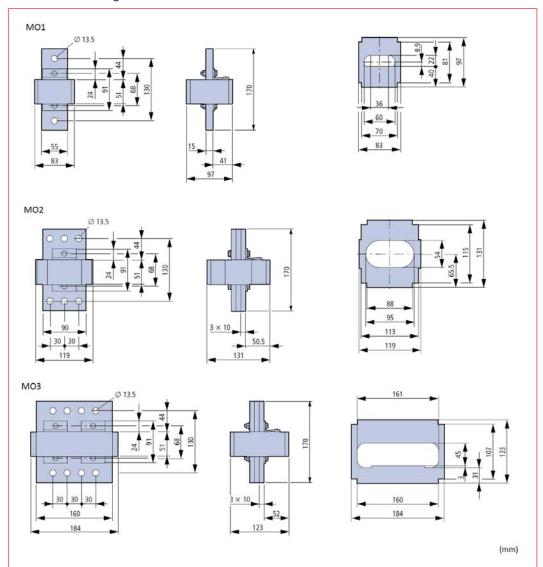
- Optional connection features:

 ** Front connection (single-bore fitting)
- *** Front connection (double-bore fitting) to DIN 43 673

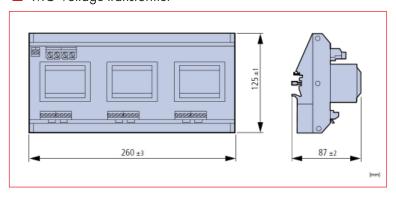
 **** Vertical connection
- ***** Flange connection

Accessories MO, measuring transducer and voltage transformer

■ MO Measuring transducer



■ MO Voltage transformer











In: Rated current

 $I_{\mbox{\tiny u}}$: Rated uninterrupted current

 I_i : Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Salaction

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if I_{fault} > I_s. With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			МО	1 + ETU	J15 inc	oming		break A)	er with	stand	ard rel	ease	МО	1 + ETU	J25 inc	oming		break V)	er with	stand	ard rel	ease
I_=I_[A]			6	30	8	00		00	12	50	16	00	6	30	8	00		000	12	50	16	00
I;[A]			_)40		00		000		000		300		500	_	000		000		000	_	000
I _{cu} [kA]			55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66
Outgoing circu	it breake	r						Discri	minati	on lim	it Is (kA). Pros	pective	e short	-circuit	curren	t (kA)					
	Ι _υ [A]	I _{cu} [kA]	В	N	В	N	В	N	В	Ν	В	N	В	N	В	N	В	N	В	N	В	N
MC1-A	40	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	Т	T
	50	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	63	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	Т
	80	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	100	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	125	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
MC2-A	40	100(150)	5	5	6	6	8	8	12	12	20	20	20	20	40	40	T	T	T	T	T	T
	50	100(150)	5	5	6	6	8	8	12	12	20	20	20	20	40	40	T	T	T	T	T	T
	63	100(150)	5	5	6	6	8	8	12	12	20	20	20	20	40	40	T	T	T	T	T	T
	80	100(150)	5	5	6	6	8	8	12	12	20	20	20	20	40	40	T	T	T	T	T	T
	100	100(150)	5	5	6	6	8	8	12	12	20	20	20	20	40	40	T	T	T	T	T	T
	125	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
	160	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
	200	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
	250	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
MC1-M	40	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	50	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	63	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
	80	25(50)	5	5	6	6	8	8	12	12	16	16	16	16	T(35)	T(35)	T	T	T	T	T	T
MC2-M	125	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
	160	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
	200	25150	5	5	6	6	8	8	12	12	20	20	20	20	T(40)	T(40)	T	T	T	T	T	T
MC2-VE	100	50150	5	5	6	6	8	8	12	12	20	20	20	20	16	16	T	T	T	T	T	T
	160	50150	5	5	6	6	8	8	12	12	20	20	20	20	16	16	T	T	T	T	T	T
	250	50150	5	5	6	6	8	8	12	12	20	20	20	20	16	16	T	T	T	T	T	T
MC3-VE(AE)	250	50150	5	5	6	6	8	8	12	12	12	12	12	12	16	16	20	20	30	30	T	T
	400	50150	5	5	6	6	8	8	12	12	12	12	12	12	16	16	20	20	30	30	T	T
	630	50150	5	5	6	6	8	8	12	12	12	12	12	12	16	16	20	20	30	30	T	Т
MC4-VE(AE)	630	50(85)	5	5	6	6	8	8	12	12	12	12	2	12	16	16	20	20	30	30	32	32
	800	50(85)	5	5	6	6	8	8	12	12	12	12	2	12	16	16	20	20	30	30	32	32
	1000	50(85)	5	5	6	6	8	8	12	12	12	12	2	12	16	16	20	20	30	30	32	32
	1250	50(85)	5	5	6	6	8	8	12	12	12	12	2	12	16	16	20	20	30	30	32	32
	1600	50(85)	5	5	6	6	8	8	12	12	12	12	2	12	16	16	20	20	30	30	32	32



Discrimination MO

■ MC – MO1 with ETU45, ETU76



In: Rated current

 $I_{\mbox{\tiny u}}$: Rated uninterrupted current

 I_{i} : Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if I_{fault} > I_s. With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			МО	1 + ETU	J45 inc	oming		break J)	er with	stand	ard rel	ease	мо	I + ETU	76 inc	oming	circuit l	breake	er with	digital	releas	e (D)
	I _n =I _u [A]		6	30	80	00		00	12	50	16	00	6	30	80	00	10	00	12	50	16	00
	I, [A]		126	500	160	000	200	000	250	000	320	000	120	500	160	000	200	000	250	000	320	000
	I _{cu} [kA]		55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66	55	66
	I ² t Taste		OFF,	/ON	OFF,	ON/	OFF,	ON/	OFF,	/ON	OFF,	ON/										
Outgoing circuit	breaker							Discri	minati	on limi	t Is (kA). Pros	pectiv	e short	-circuit	currer	nt (kA)					
	I, [A]	I _{cu} [kA]	В	N	В	N	В	N	В	N	В	N	В	N	В	N	В	N	В	N	В	N
MC1-A	40	25(50)	T	T	T	T	T	T	T	T	T	T	Т	Т	T	Т	T	T	T	T	T	Т
	50	25(50)	Т	Т	Т	T	Т	Т	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	63	25(50)	Т	Т	Т	T	T	Т	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	80	25(50)	Т	Т	Т	T	T	Т	T	T	T	Т	Т	Т	Т	Т	Т	T	T	Т	Т	Т
	100	25(50)	Т	Т	Т	Т	Т	Т	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	125	25(50)	Т	Т	Т	T	T	Т	T	T	T	Т	Т	Т	Т	Т	T	T	Т	Т	Т	Т
MC2-A	40	100(150)	T	T	T	T	T	T	T	T	T	T	Т	Т	T	T	T	T	T	T	T	Т
	50	100(150)	Т	Т	Т	T	T	T	T	Т	T	Т	Т	Т	T	Т	Т	Т	T	Т	Т	Т
	63	100(150)	Т	Т	Т	T	T	Т	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	80	100(150)	Т	Т	T	T	T	Т	T	Т	T	Т	Т	Т	Т	Т	Т	T	T	Т	Т	Т
	100	100(150)	Т	Т	Т	T	T	Т	T	T	T	Т	Т	Т	Т	Т	Т	T	Т	Т	Т	Т
	125	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	200	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т
	250	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т
MC1-M	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т
	50	25(50)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т
	63	25(50)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	Т
MC2-M	125	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	200	25150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
MC2-VE	100	50150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	160	50150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	250	50150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
MC3-VE(AE)	250	50150	T	T	T	T	T	T	T	T	T	T	T	Т	T	T	T	T	T	T	T	T
	400	50150	T	T	T	T	T	T	T	Т	T	Т	Т	Т	T	Т	T	Т	T	T	T	T
	630	50150	T	T	T	T	T	T	T	T	T	Т	Т	Т	T	Т	T	T	T	T	T	T
MC4-VE(AE)	630	50(85)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)
	800	50(85)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)
	1000	50(85)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)
	1250	50(85)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)
	1600	50(85)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)	T(40)	T(52)



Discrimination MO





I_n: Rated current

 $I_{\mbox{\tiny u}}$: Rated uninterrupted current

 $I_{i:}$ Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

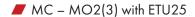
Selection:

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These entries represent the discrimination limit. Both switches trip out with larger short-circuit currents.

Type In=Iu[A]			MO2	800		_ <u>_</u>	1000			1250			1600			2000			2500			3200	
										10000						16000			20000	.		25600	
Ι _i [A] Ι _{cυ} [kA]			66	6400	100	66	8000	100	66	88	100	66	12800	100	66	88	100	66	88	100	66	88	100
Outgoing	airenit br	alcon.			ion lim								88	100	00	88	100	00	88	100	00	88	100
Oulgoing	I,, [A]	I _{cu} [kA]	B	N	Н	B	N	H	В	N	Н	B	N	Н	В	N	Н	В	N	Н	В	N	Н
MC1-A	40	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
MCI-A	50	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
	63	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
	80	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
	100	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
	120	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42)	T(42)	T(42)	T	T	T
MC2-A	40	100(150)	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	55	65	65	T	T	T
MCZ-A	50	100(150)	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	55	65	65	T	T	T
	63	100(150)	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	55	65	65	T	T	T
	80	100(150)	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	55	65	65	T	T	T
	100	100(150)	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	55	65	65	T	T	T
	125	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	T	T	T
	160	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	T	T	T
	200	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	T	T	T
	250	25150	6	6	6	8	8	8	10	10	10	20	20	20		T(30)	T(30)	T(55)		T(65)	Т	Т	Т
MC1-M	40	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42		T(42)	Т	Т	Т
	50	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42	T(42)	T(42)	Т	Т	Т
	63	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42	T(42)	T(42)	T	Т	Т
	80	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42	T(42)	T(42)	Т	Т	Т
	100	25(50)	6	6	6	8	8	8	10	10	10	16	16	16	T(25)	T(25)	T(25)	T(42	T(42)	T(42)	Т	Т	Т
MC2-M	125	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	T	Т	Т
	160	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	Т	Т	Т
	200	25150	6	6	6	8	8	8	10	10	10	20	20	20	T(30)	T(30)	T(30)	T(55)	T(65)	T(65)	T	Т	Т
MC2-VE	100	50150	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	T(55)	T(65)	T(65)	T	Т	Т
	160	50150	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	T(55)	T(65)	T(65)	T	Т	Т
	250	50150	6	6	6	8	8	8	10	10	10	20	20	20	30	30	30	T(55)	T(65)	T(65)	Т	Т	Т
MC3- VE(AE)	250	50150	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	30	30	30
	400	50150	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	30	30	30
	630	50150	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	30	30	30
MC4- VE(AE)	630	50(85)	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	25	25	25
	800	50(85)	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	25	25	25
	1000	50(85)	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	25	25	25
	1250	50(85)	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	25	25	25
	1600	50(85)	6	6	6	8	8	8	10	10	10	12	12	12	16	16	16	20	20	20	25	25	25









- I_u: Rated uninterrupted current

l_i: Katea unimerrupred constr... l_i: Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if $I_{foult} > I_s$.

With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			MO2+	ETU25 in	coming o	ircuit bre	eaker wi	th selecti	ive relea	se (V) I _i m	ax = 50	kA		
I_n=I_u [A]				800			1000			1250			1600	
I _i [A]				16000			20000			25000			32000	
I _{cu} [kA]			66	88	100	66	88	100	66	88	100	66	88	100
Outgoing circu	uit breake	r	Discrim	ination li	mit Is (k	A). Prosp	ective sh	ort-circu	it current	(kA)				
	I₀[A]	Icu [kA]	В	N	Н	В	N	Н	В	N	Н	В	N	Н
MC1-A	40	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	50	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	63	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	80	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	100	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	125	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
MC2-A	40	100(150)	40	40	40	T	T	T	T	T	T	T	T	T
	50	100(150)	40	40	40	T	T	T	T	T	T	T	T	T
	63	100(150)	40	40	40	T	T	T	T	T	T	T	T	T
	80	100(150)	40	40	40	T	T	T	T	T	T	T	T	T
	100	100(150)	40	40	40	T	T	T	T	T	T	T	T	T
	125	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	Т	T
	160	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
	200	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
	250	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
MC1-M	40	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	50	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	63	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	80	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
	100	25(50)	T(35)	T(35)	T(35)	T	T	T	T	T	T	T	T	T
MC2-M	125	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
	160	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
	200	25150	T(40)	T(40)	T(40)	T	T	T	T	T	T	T	T	T
MC2-VE	100	50150	16	16	16	T	T	T	T	T	T	T	T	T
	160	50150	16	16	16	T	T	T	T	T	T	T	T	T
	250	50150	16	16	16	T	T	T	T	T	T	T	T	T
MC3-VE(AE)	250	50150	16	16	16	20	20	20	30	30	30	T	T	T
	400	50150	16	16	16	20	20	20	30	30	30	T	T	T
	630	50150	16	16	16	20	20	20	30	30	30	T	T	T
MC4-VE(AE)	630	50(85)	16	16	16	20	20	20	30	30	30	32	32	32
	800	50(85)	16	16	16	20	20	20	30	30	30	32	32	32
	1000	50(85)	16	16	16	20	20	20	30	30	30	32	32	32
	1250	50(85)	16	16	16	20	20	20	30	30	30	32	32	32
	1600	50(85)	16	16	16	20	20	20	30	30	30	32	32	32









I_u: Rated uninterrupted current
I_i: Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

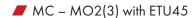
The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if $I_{foult} > I_s$.

With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			MO2+	ETU25 in	coming o	circuit bre	eaker wi	th selecti	ive relea:	se (V) I _i m	ax=		моз	
In=Iu [A]				2000			2500			3200		4000	5000	6300
I _i [A]				40000			50000			50000			50000	
I _{cu} [kA]			66	88	100	66	88	100	66	88	100	100	100	100
Outgoing circu	it breake	r	Discrim	ination li	mit Is (k	A). Prosp	ective sh	ort-circu	it current	(kA)				
	I₀[A]	Icu [kA]	В	N	Н	В	N	Н	В	Ν	Н	Н	Н	Н
MC1-A	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	63	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	125	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
MC2-A	40	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	50	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	63	100(150)	T	T	T	T	T	Т	T	T	T	Т	T	T
	80	100(150)	Т	Т	Т	Т	Т	Т	Т	T	T	T	T	T
	100	100(150)	Т	T	T	T	T	Т	T	T	T	T	T	T
	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	Т	T	T	T	T	T	T	T	T	T	T	T
	200	25150	Т	Т	Т	T	Т	Т	Т	T	T	T	Т	T
	250	25150	T	T	T	T	T	T	T	T	T	T	T	T
MC1-M	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	Т	T	Т	Т	T	T	Т	T	Т
	63	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	80	25(50)	Т	T	T	T	T	Т	Т	T	T	T	T	T
	100	25(50)	Т	Т	Т	T	T	Т	Т	T	T	Т	Т	T
MC2-M	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	Т	T	T	T	Т	Т	T	T	Т	T	T
	200	25150	Т	Т	Т	T	T	Т	Т	T	T	T	Т	T
MC2-VE	100	50150	Т	T	T	T	T	T	T	T	T	T	T	T
	160	50150	Т	T	T	T	T	T	Т	T	T	Т	T	T
	250	50150	Т	T	T	T	T	Т	Т	Т	Т	Т	T	Т
MC3-VE(AE)	250	50150	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	400	50150	Т	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т
	630	50150	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
MC4-VE(AE)	630	50(85)	40	40	40	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)
. ,	800	50(85)	40	40	40	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)
	1000	50(85)	40	40	40	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)
	1250	50(85)	40	40	40	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)
	1600	50(85)	40	40	40	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)	T(50)









In: Rated current

 $I_{\mbox{\tiny U}}$: Rated uninterrupted current

 $I_{i:}$ Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if $I_{tout} > I_s$. With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			MO2 (3)	+ ETU45 i	ncoming	circuit bre	aker with	universa	l release	(U) I _i = 0.8	x I _{cu} (= 0.8	B x I _{cs})		
I _n =I _u [A]				800			1000			1250			1600	
I; [kA]			53	64	80	53	64	80	53	64	80	53	64	80
I _{cu} [kA]			66	88	100	66	88	100	66	88	100	66	88	100
I ² t Taste			OFF/ ON			OFF/ ON			OFF/ ON			OFF/ ON		
Outgoing circu	it breaker				Dis	criminatio	on limit Is	(kA). Pros	pective sl	nort-circui	t current (kA))		
	I, [A]	Icu [kA]	В	N	Н	В	N	Н	В	N	Н	В	N	Н
MC1-A	40	25(50)	T	Т	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	Т	T	T	Т	T	Т	T	T	T	Т	T
	63	25(50)	T	Т	T	T	Т	T	Т	T	T	Т	Т	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	125	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
MC2-A	40	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	50	100(150)	T	Т	T	T	Т	T	Т	T	T	Т	Т	T
	63	100(150)	T	T	T	T	Т	T	T	T	T	T	T	T
	80	100(150)	T	T	T	T	Т	T	T	T	T	T	T	T
	100	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	T	T	T	T	T	T	T	T	T	T
	200	25150	T	T	T	T	T	T	T	T	T	T	T	T
	250	25150	T	T	T	T	T	T	T	T	T	T	T	T
MC1-M	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	63	25(50)	T	T	T	T	Т	T	T	T	T	T	T	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
MC2-M	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	Т	T	T	T	T	T	T	T	T	T	T
	200	25150	T	T	T	T	T	T	T	T	T	T	T	T
MC2-VE	100	50150	T	T	T	T	T	T	T	T	T	T	T	T
	160	50150	T	T	T	T	T	T	T	T	T	T	T	T
	250	50150	T	T	T	T	T	T	T	T	T	T	T	T
MC3-VE(AE)	250	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	400	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	630	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
MC4-VE(AE)	630	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	800	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	1000	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	1250	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)
	1600	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80	45	T(64)	T(80)









 $I_{\mbox{\tiny u}} {:}\ Rated uninterrupted current$

 I_i : Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

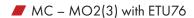
The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table.

These indications represent the discrimination limit. Both circuit-breakers trip if I_{fault} > I_s. With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			MO2 (3) + ETU	•	circuit bre	aker with		l release (U) I;= 0.8		3 x l _s)	1 ,,,,,	l ====	1 ,,,,,
I _n =I _u [A]				2000			2500	1		3200		4000	5000	6300
I; [kA]			53	64	80	53	64	80	53	64	80		80	
I _{cu} [kA]			66	88	100	66	88	100	66	88	100		100	
I ² t Taste				OFF/ON	- : · ·		OFF/ON			OFF/ON			OFF/ON	1
Outgoing circu							T	Prospectiv		T	1			T
	Ι _υ [A]	I _{cu} [kA]	В	N	Н	В	N	Н	В	N	H	В	N	H
MC1-A	40	25(50)	Т	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	63	25(50)	T	T	T	T	Т	T	Т	Т	Т	Т	Т	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	Т	T	T	T	T	T	T	T	T	T	T
	125	25(50)	Т	Т	T	T	T	T	T	T	T	T	T	T
MC2-A	40	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	50	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	63	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	80	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	100	100(150)	T	T	T	T	T	Т	Т	T	T	T	T	T
	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	T	T	T	T	T	T	T	T	T	T
	200	25150	T	T	T	T	T	T	T	T	T	T	T	T
	250	25150	T	T	T	T	T	T	T	T	T	T	T	T
MC1-M	40	25(50)	Т	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	Т	T	T	T	T	T	T	T	T	T	T	T
	63	25(50)	Т	T	T	T	T	T	T	T	T	T	T	T
	80	25(50)	T	T	Т	T	T	Т	T	Т	Т	Т	T	Т
	100	25(50)	T	T	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
MC2-M	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	Т	T	Т	Т	T	T	Т	Т	Т	Т
	200	25150	T	T	Т	T	T	Т	T	Т	Т	Т	Т	Т
MC2-VE	100	50150	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	160	50150	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
	250	50150	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
MC3-VE(AE)	250	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
- , -/	400	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	630	50150	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
MC4-VE(AE)	630	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	800	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1000	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1250	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1600	50(85)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)









I_u: Rated uninterrupted current

 $I_{i:}$ Setting value, non-delayed short-circuit release

Discrimination

Between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

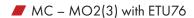
The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if $I_{lout} > I_s$.

With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре				MC)2 + ETU7	5 incomin	ıg circuit k	reaker w	rith digital	release (D) I _i = 0.8	$x I_{co} = 0.8$	x l _{cs}	
I _n =I _u [A]				800			1000			1250			1600	
I _i [kA]			53	64	80	53	64	80	53	64	80	53	64	80
I _{cu} [kA]			66	88	100	66	88	100	66	88	100	66	88	100
Outgoing circu	uit breaker	r			Dis	criminatio	on limit Is	(kA). Pros	pective sl	ort-circui	t current (kA)		
	I₀[A]	I _{cυ} [kA]	В	N	Н	В	N	Н	В	N	Н	В	N	Н
MC1-A	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	63	25(50)	Т	T	Т	T	Т	T	T	T	T	Т	Т	T
	80	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	125	25(50)	T	T	Т	T	Т	T	T	T	T	T	Т	T
MC2-A	40	100(150)	T	T	T	T	T	T	T	T	T	T	T	T
	50	100(150)	T	T	T	T	Т	T	T	T	T	T	T	T
	63	100(150)	T	T	T	T	Т	T	T	T	T	T	Т	Т
	80	100(150)	T	T	Т	T	Т	T	T	T	T	Т	Т	T
	100	100(150)	T	T	T	T	Т	T	T	T	T	T	T	T
	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	Т	T	Т	T	T	T	T	T	Т	Т
	200	25150												
	250	25150	T	T	T	T	T	T	T	T	T	T	T	T
MC1-M	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	Т	T	T	Т	Т	Т	T	T	Т	Т	Т
	63	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	80	25(50)	T	T	T	T	Т	T	T	T	T	T	Т	Т
	100	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
MC2-M	125	25150	T	T	T	T	T	T	T	T	T	T	T	T
	160	25150	T	T	T	T	T	T	T	T	T	T	T	T
	200	25150	Т	T	Т	T	Т	T	T	T	T	Т	Т	T
MC2-VE	100	50150	T	T	T	T	T	T	T	T	T	T	T	T
	160	50150	T	T	T	T	T	T	T	T	T	T	T	T
	250	50150	T	T	T	Т	Т	T	Т	T	T	Т	Т	Т
MC3-VE(AE)	250	50150	T	T	T	T	T	T	T	T	T	T	T	T
	400	50150	T	T	T	Т	T	T	Т	T	T	T	Т	Т
	630	50150	T	T	T	Т	T	T	Т	T	T	T	T	T
MC4-VE(AE)	630	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	800	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1000	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1250	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)
	1600	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)









 $I_{\mbox{\tiny u}}$: Rated uninterrupted current

 $I_{i:}$ Setting value, non-delayed short-circuit release

Discrimination

between circuit breakers enables faulty system sections to be shut down. There is discrimination between incoming circuit breaker 1 and outgoing circuit breaker 2 if, in the event of a short-circuit at position 2 only the outgoing circuit breaker 2 trips.

System sections 3 and 4 remain operational.

Selection:

The outgoing circuit breaker is selective in relation to the incoming circuit breaker providing that the short-circuit current does not exceed the values (Is in kA) specified in the table. These indications represent the discrimination limit. Both circuit-breakers trip if $I_{tout} > I_s$.

With MOs with ETU25, 45, 76 releases, the time-delay tsd must be at least 100ms higher than the time-delay of the next subordinate levels (2, 3, 4).

Туре			MO2 (3)	+ ETU76	incoming	circuit bre	aker with	digital re	lease (D)	I _i = 0,8 x	I _{cu} = 0,8 x	I _{cs}		
I _n =I _u [A]				2000			2500			3200		4000	5000	6300
I; [kA]			53	64	80	53	64	80	53	64	80	80	80	80
I _{cu} [kA]			66	88	100	66	88	100	66	88	100	100	100	100
Outgoing circui	t breaker				Dis	criminatio	on limit Is	(kA). Pros	pective sl	ort-circui	it current (kA)		
	I, [A]	I _{cu} [kA]	В	N	Н	В	N	Н	В	N	Н	Н	Н	Н
MC1-A	40	25(50)	T	Т	T	T	Т	T	T	T	Т	Т	Т	Т
	50	25(50)	T	Т	T	Т	Т	T	Т	T	Т	Т	Т	Т
	63	25(50)	T	Т	T	Т	Т	T	Т	T	Т	Т	T	T
	80	25(50)	Т	Т	T	Т	Т	T	Т	T	Т	Т	Т	Т
	100	25(50)	T	T	T	T	T	T	Т	T	T	Т	T	Т
	125	25(50)	T	T	T	T	T	T	T	T	T	Т	T	T
MC2-A	40	100(150)	T	Т	T	Т	Т	Т	Т	T	Т	Т	Т	Т
	50	100(150)	T	Т	T	Т	Т	T	T	T	Т	Т	T	Т
	63	100(150)	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т
	80	100(150)	T	T	T	Т	T	T	Т	T	Т	Т	T	Т
	100	100(150)	T	Т	T	Т	Т	T	T	T	Т	Т	T	Т
	125	25150	T	T	T	T	T	T	Т	T	T	T	T	T
	160	25150	T	Т	T	Т	Т	T	Т	T	Т	Т	T	Т
	200	25150	T	T	T	Т	T	T	T	T	Т	Т	T	Т
	250	25150	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т
MC1-M	40	25(50)	T	T	T	T	T	T	T	T	T	T	T	T
	50	25(50)	T	T	T	Т	T	T	T	T	T	Т	T	Т
	63	25(50)	T	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т
	80	25(50)	T	T	T	Т	T	T	T	T	T	T	T	Т
	100	25(50)	T	Т	T	Т	Т	Т	T	Т	Т	Т	Т	Т
MC2-M	125	25150	T	T	T	Т	Т	T	T	T	T	T	T	T
	160	25150	T	T	T	Т	T	T	T	T	T	T	T	Т
	200	25150	T	Т	T	Т	Т	Т	Т	Т	Т	Т	T	Т
MC2-VE	100	50150	T	T	T	Т	Т	T	T	T	Т	T	T	Т
	160	50150	Т	Т	T	Т	Т	T	Т	T	Т	Т	T	Т
	250	50150	Т	Т	T	Т	Т	T	Т	T	Т	Т	Т	Т
MC3-VE(AE)	250	50150	Т	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т
	400	50150	Т	Т	T	Т	Т	Т	Т	Т	Т	Т	Т	Т
	630	50150	T	T	T	T	T	T	T	T	Т	T	T	Т
MC4-VE(AE)	630	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	T(80)	T(80)	T(80)
. ,	800	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	T(80)	T(80)	T(80)
	1000	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	T(80)	T(80)	T(80)
	1250	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	T(80)	T(80)	T(80)
	1600	50(100)	45	T(64)	T(80)	45	T(64)	T(80)	45	T(64)	T(80)	T(80)	T(80)	T(80)



Tripping characteristics ETU MO

Schrack-Info

The characteristic curves show the behaviour of the electronic trip unit when it is activated by a current that is already flowing before the tripping operation. If the overcurrent tripping occurs immediately after closing and the electronic trip unit is therefore not yet activated, the opening time is extended, depending on the level of the overcurrent by up to 15 ms. In order to determine the total break-times of the circuit breakers, approximately 15 ms must be added to the opening times shown for the arcing time.

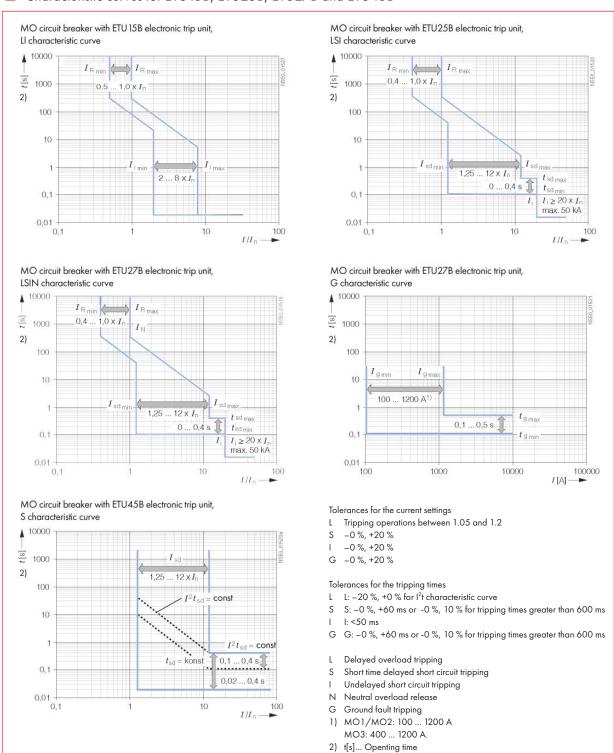
With a single-pole load in the lowest rated current range, the response times of the short-circuit trip can increase by approx. 10 % and the tripping times by approx. 15 % with respect to the characteristic curve.

For tolerances, refer to the following legend.

The characteristic curves shown apply to ambient temperatures at the circuit breaker between -5 and +55 °C. The trip unit can be operated at ambient temperatures of -20 to +70 °C. An extended tolerance band can apply at these temperatures.

In order to obtain a complete tripping characteristic, the relevant parts of the characteristics have to be combined.

Characteristic curves for ETU15B, ETU25B, ETU27B and ETU45B





Tripping characteristics ETU MO

Schrack-Info

The characteristic curves show the behaviour of the electronic trip unit when it is activated by a current that is already flowing before the tripping operation. If the overcurrent tripping occurs immediately after closing and the electronic trip unit is therefore not yet activated, the opening time is extended, depending on the level of the overcurrent by up to 15 ms. In order to determine the total break-times of the circuit breakers, approximately 15 ms must be added to the opening times shown for the arcing time.

For tolerances, refer to the following legend.

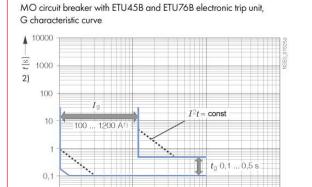
The characteristic curves shown apply to ambient temperatures at the circuit breaker between -5 and +55°C. The trip unit can be operated at ambient temperatures of -20 to +70°C (ETU76B with graphic display up to +55°C). An extended tolerance band can apply at these temperatures.

In order to obtain a complete tripping characteristic, the relevant parts of the characteristics have to be combined.

100000

I[A]

■ Characteristic curves for ETU45B and ETU76B

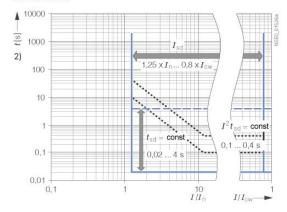


10000

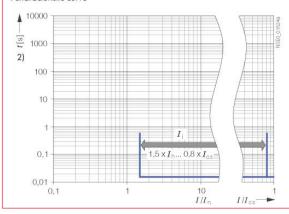
MO circuit breaker with ETU76B electronic trip unit, Scharacteristic

1000

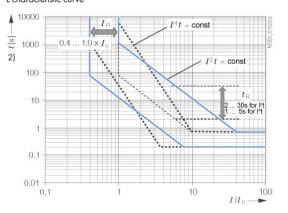
100



MO circuit breaker with ETU45B and ETU76B electronic trip unit, I characteristic curve



MO circuit breaker with ETU45B and ETU76B electronic trip unit,



Tolerances for the current settings

- L Tripping operations between 1.05 and 1.2
- S -0 %, +20 %
- I -0 %, +20 %
- G -0 %, +20 %

Tolerances for the tripping times

- L -20 %, +0 % for I²t characteristic curve
- S -0 %, +60 ms or -0 %, 10 % for tripping times greater than 600 ms
- l <50 ms
- G $\,$ –0 %, +60 ms or -0 %, 10 % for tripping times greater than 600 ms
- L Delayed overload tripping
- S Short time delayed short circuit tripping
- I Undelayed short circuit tripping
- G Ground fault tripping
- 1) MO1/MO2: 100 ... 1200 A MO3: 400 ... 1200 A.
- 2) t[s]... Openting time

Load Switches ML, fix installed









Schrack-Info

• Load break switches type ML, size 11-14, 3 or 4-pole, 32 - 800A, fix installed

Load Switches ML Size 1 - 3-pole







ML110050

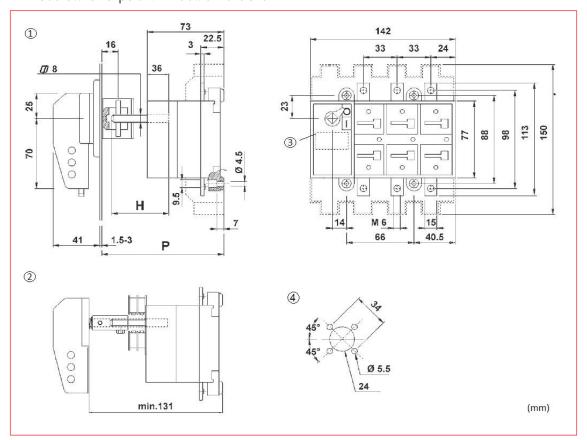
ML110050SM

Schrack-Info

- Disconnectors 3-pole up to 125A
- Connection bars standard
- With direct handle, door coupler or without handle

Load Switches ML Size 1 - 3-pole

■ Load Switch 3-pole ML1100.. dimensions

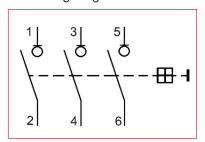


- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

	•	С	Н
min	max	47	ВС
116	247	4/	r-C

C = constant

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
63A		
Load breaker 3-pole ML11 3x63A with door coupling rotary handle	ML11	ML110020
100A		
Load breaker 3-pole ML11 3x100A with door coupling rotary handle	ML11	ML110040
125A		
Load breaker 3-pole ML11 3x125A with door coupling rotary handle	ML11	ML110050
Load breaker 3-pole ML11 3x125A with direct rotary handle	ML11	ML110050MD
Load breaker 3-pole ML11 3x125A without rotary handle	ML11	ML110050SM



■ Load Switches ML Size 2 - 3-pole



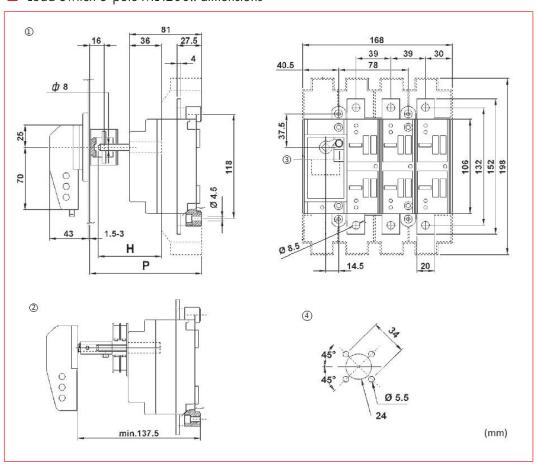


ML120010SM

Schrack-Info

- Disconnectors 3-pole up to 250A
- Connection bars standard
- With direct handle or door coupler

■ Load Switch 3-pole ML1200.. dimensions



- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

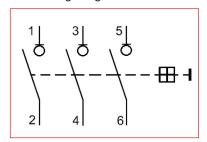
	•	С	Н
min	max	55	D C
124	255	55	F-C

C = constant



■ Load Switches ML Size 2 - 3-pole

Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160A			
Load breaker 3-pole ML12 3x160A with door coupling rotary handle	ML12		ML120010
Load breaker 3-pole ML12 3x160A without rotary handle	ML12	300 0-6	ML120010SM
200A			
Load breaker 3-pole ML12 3x200A without rotary handle	ML12		ML120020SM
250A			
Load breaker 3-pole ML12 3x250A with door coupling rotary handle	ML12	000 0-0	ML120030
Load breaker 3-pole ML12 3x250A without rotary handle	ML12	555 0- 8	ML120030SM

Load Switches ML Size 2 - 4-pole

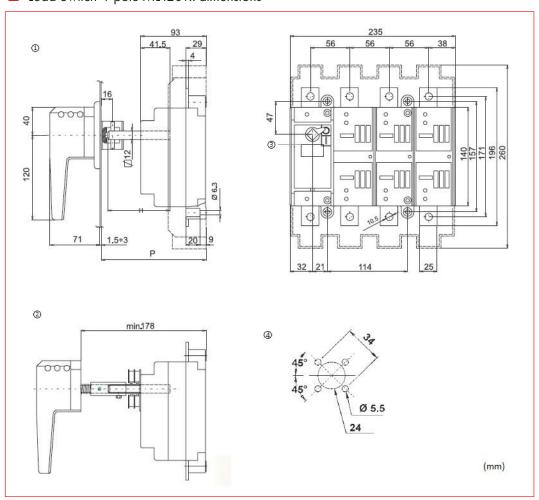


Schrack-Info

- Disconnectors 3-pole 200A
- Connection bars standard
- Without handle

ML120120SM

■ Load Switch 4-pole ML1201.. dimensions



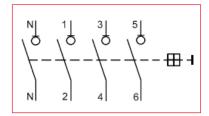
- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

	P	С	Н
min	max	5.5	р С
124	255	55	P-C

C = constant



- Load Switches ML Size 2 4-pole
- Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
200A			
Load breaker 4-pole ML12 4x200A without rotary handle	ML12-4		ML120120SM

■ Load Switches ML Size 3 - 3-pole



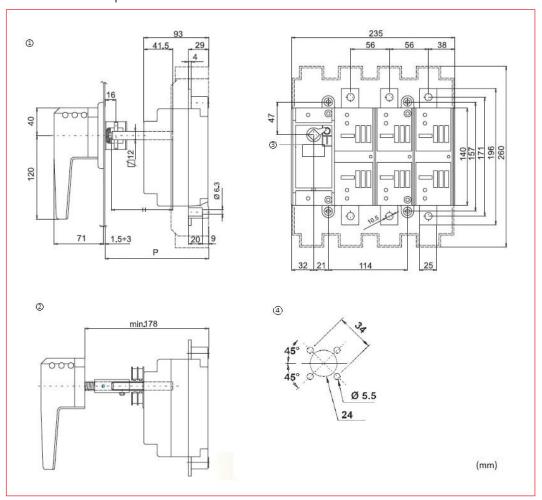


ML130010SM

Schrack-Info

- Disconnectors 3-pole up to 400A
- Connection bars standard
- With door-coupler or without handle

■ Load Switch 3-pole ML1300.. dimensions



- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

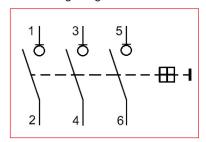
		С	Н
min	max	F1 F	P - C
148	261.5	51.5	r-C

C = constant



■ Load Switches ML Size 3 - 3-pole

Wiring diagram



DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
315A		
Load breaker 3-pole ML13 3x315A with door coupling rotary handle	ML13	ML130010
Load breaker 3-pole ML13 3x315A without rotary handle	ML13	ML130010SM
400A		
Load breaker 3-pole ML13 3x400A with door coupling rotary handle	ML13	ML130020
Load breaker 3-pole ML13 3x400A without rotary handle	ML13	ML130020SM

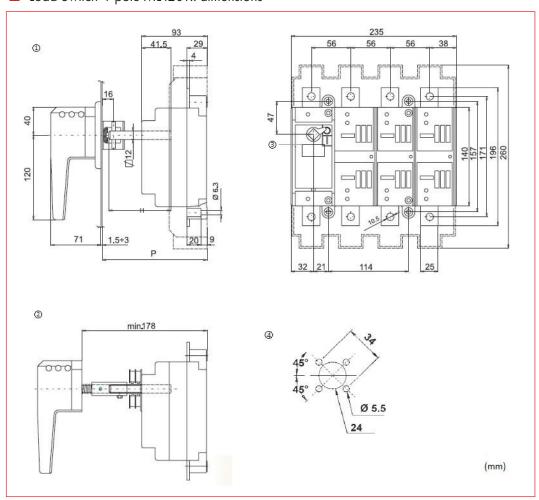
■ Load Switches ML Size 3 - 4-pole



Schrack-Info

- Disconnectors 4-pole 400A
- Connection bars standard
- Without handle

■ Load Switch 4-pole ML1201.. dimensions



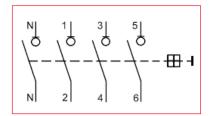
- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

	P	С	Н
min	max	F1 F	P - C
148	261.5	51.5	r-C

C = constant



- Load Switches ML Size 3 4-pole
- Wiring diagram



DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400A			
Load breaker 4-pole ML13 4x400A without rotary handle	ML13-4		ML130120SM

■ Load Switches ML Size 4 - 3-pole



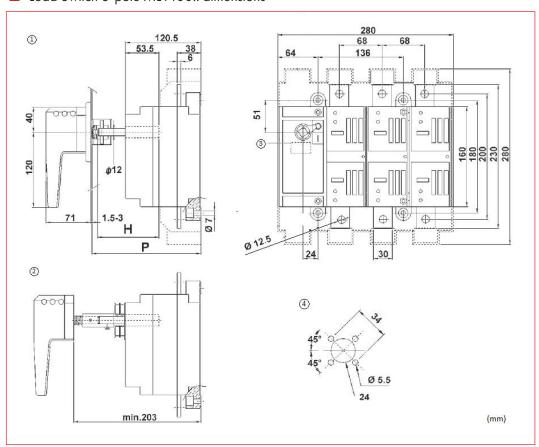


ML140030SM

Schrack-Info

- Disconnectors 3-pole up to 630A
- Connection bars standard
- With door-coupler or without handle

■ Load Switch 3-pole ML1400.. dimensions



- 1) Door coupling rotary handle
- 2) Direct rotary handle
- 3) Auxiliary contacts, 2NO+2NC max.
- 4) Drilling plan, door coupling rotary handle

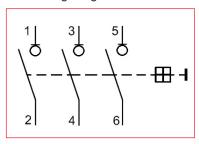
	•	С	Н		
min	max	74	ВС		
174	276	/0	P-C		

C = constant



■ Load Switches ML Size 4 - 3-pole

Wiring diagram



DESCRIPTION		TY	/PE NO.	AVAILABLE	ORDER NO.
630A					
Load breaker 3-pole ML14 3x630A with door cou	pling rotary handle	М	L14		ML140030
Load breaker 3-pole ML14 3x630A without rotary	handle	М	L14		ML140030SM

Load Switches - Accessories









ML180020

ML180540



ML180200



ML180600

Schrack-Info

- Direct handles and door-coupler
- Shaft extensions
- Terminal covers and touch protections

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Door coupling rotary handle, red/yellow ML11/12	ML11/12-ZU	300 0- 0	ML180020
Door coupling rotary handle, red/yellow ML13/14	ML13/14-ZU	000 0-0	ML180040
Direct rotary handle for ML11	ML11-ZU		ML180200
Axe extension for ML11/12 300mm	ML11/12-ZU	000 0-0	ML180360
Axe extension for ML13/14 300mm	ML13/14-ZU		ML180380
Terminal cover top ML12	ML12-ZU	000 0-0	ML180520
Terminal cover bottom ML12	ML12-ZU	000 0-0	ML180530
Terminal cover top ML14	ML14-ZU		ML180540
Terminal cover bottom ML14	ML14-ZU		ML180550
Cover for main contacts ML11	ML11-ZU		ML180600
Cover for main contacts ML12	ML12-ZU	388 0- 8	ML180610
Terminal cover top ML13	ML13-ZU		ML183500
Terminal cover bottom ML13	ML13-ZU		ML183510
Cover for main contacts ML13	ML13-ZU		ML183600

Technical Data ML

Rated current		Туре					ML11						ML12	
			(In)	32A	45A	63A	80A	100A	125A	160A	160A	200A	250A	315A
Rated insulation volt		c.a./AC (U _i)	(V)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
kalea insulation voil	age	c.c./DC (U _i)	(V)	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Impulse withstand vo	oltage	(U _{imp})	(kV)	8	8	8	8	8	8	8	8	8	12	12
Rated thermal curren	nt	(I _{th})	(A)	32	45	63	80	100	125	160	160	200	250	315
		400V	(A)	32	45	63	80	100	125	125/160	160	200	250	250/315
	AC-21A/B	500V	(A)	32	45	63	80	100	125	125/160	160	200	250	250/315
		690V	(A)	32	45	63	80	100	125	125/160	160	200	250	250/315
		400V	(A)	32	45	63	80	100	125	125/160	160	200	250	250/315
	AC-22A/B	500V	(A)	32	45	63	80	100	125	125/125	160	200	250	250/250
		690V	(A)	32	45	63	80	100	125	125/125	160	200	250	250/250
•		400V	(A)	32	45	63	80	100	125	125/125	160	200	250	250/250
	AC-23A/B	500V	(A)	25	35	45	63	80	100	100/100	125	160	200	200/200
Rated operational		690V	(A)	20	30	35	45	63	80	80/80	100	125	160	160/160
current (I _e)		220V	(A)	32	45	63	80	100	125	125/160	160	200	250	250/315
	DC-21A/B(1)	420V	(A)	-	-	-	-	-	-	-	160	200	250	250/315
	,	560V	(A)	-	-	-	-	-	-	-	-	-	-	-
-		220V	(A)	32	45	63	80	100	125	125/125	160	200	250	250/315
	DC-22A/B(1)	420V	(A)	-	-	-	-	-	-	-	160	200	250	250/250
		560V	(A)	-	-	-	-	-	-	-	-	-	-	-
-		220V	(A)	20	30	35	45	63	80	80/80	160	200	250	250/250
	DC-23A/B(1)		(A)	-	-	-	-	-	-	-	160	200	250	250/250
	, , , ,	560V	(A)	-	-	-	-	-	-	-	-	-	-	-
Rated making capac	city at 400V AC	23	(A)	320	450	630	800	1000	1250	1250	1600	2000	2500	2500
Rated breaking capa			(A)	256	360	504	640	800	1000	1000	1280	1600	2000	2000
Short-circuit withstan			(kA)	5	5	5	5	5	5	5	8	8	8	8
Short-circuit withstan			(kA)	10	10	10	10	10	10	10	16	16	16	16
Short-circuit making		(400V)	(kA)	7.5	7.5	7.5	7.5	7.5	7.1	7.5	13.5	13.5	13.5	13.5
Rated operational pe	. ,	(400V)	(kW)	17	23	33	42	52	65	65	85	105	130	130
Rated fuse short-ci		(/	(/											
Back up fuse			(A)	32	45	63	80	100	125	160	160	200	250	315
R.M.S. value			(kA)	100	100	100	100	50	50	50	100	100	50	50
Peak value			(kA)	6	9	10	12	12	15	16	16	20	25	27
Mechanical endurar	nce		n°	12000	12000	12000	12000	12000	10000	10000	10000	10000	10000	10000
Electrical endurance			n°	3000	3000	3000	3000	3000	2000	2000	2000	2000	2000	2000/200
Rated capacitor pov			kVAR	15	20	30	40	45	50	50	70	90	110	110
Power losses for pole			(W)	0.1	0.2	0.4	0.7	1.1	1.7	2.7	1.6	2.4	3.8	6
Cable section	-		mmq	50	50	50	50	50	50	70	120	120	120	185
Bars dimension			mm	16x3	16x3	16x3	16x3	16x3	16x3	16x4	20x5	20x5	20x5	20x5
Operation torque			Nm	8	8	8	8	8	8	8	12	12	12	12
		3P	kg	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.5	1.5	1.5	1.5
Net weight		4P	kg	1	1	1	1	1	1	1	1.6	1.6	1.6	1.6



Technical Data ML

Туре					ML13		۸ ا	۸L14
Rated current			(In)	315A	400A	500A	630A	800A
Rated insulation voltage $\frac{c.a./AC}{(U_i)}$		(V)	1000	1000	1000	1000	1000	
Kalea Ilisulation vo	ilage	c.c./DC (U _i)	(V)	1500	1500	1500	1500	1500
Impulse withstand	voltage	(U _{imp})	(kV)	12	12	12	12	12
Rated thermal curre	ent	(I _{th})	(A)	315	400	500	630	800
		400V	(A)	315	400	400/500	630	630/800
	AC-21A/B	500V	(A)	315	400	400/500	630	630/800
		690V	(A)	315	400	400/500	630	630/800
		400V	(A)	315	400	500/500	630	630/800
	AC-22A/B	500V	(A)	315	400	400/400	630	630/630
		690V	(A)	315	400	400/400	630	630/630
		400V	(A)	315	400	500/500	630	630/630
	AC-23A/B	500V	(A)	250	315	315/315	500	500/500
Rated operational		690V	(A)	200	250	250/250	400	400/400
current (I _e)		220V	(A)	315	400	400/500	630	630/800
	DC-21A/B(1)	420V	(A)	315	400	400/500	630	630/800
	,	560V	(A)	315	400	400/500	630	630/800
		220V	(A)	315	400	400/500	630	630/800
	DC-22A/B (1)	420V	(A)	315	400	400/400	630	630/630
		560V	(A)	315	400	400/400	630	630/630
		220V	(A)	315	400	400/400	630	630/630
	DC-23A/B (1)		(A)	315	400	400/400	630	630/630
	, - (.,	560V	(A)	315	400	400/400	630	630/630
Rated making cap	acity at 400V AC		(A)	3150	4000	4000	6300	6300
Rated breaking ca			(A)	2520	3200	3200	5040	5040
Short-circuit withsto	,		(kA)	13	13	13	26.5	26.5
Short-circuit withsto			(kA)	26	26	26	53	53
Short-circuit makin		(400V)	(kA)	26	26	26	30	30
Rated operational	- , ,	(400V)	(kW)	165	210	210	330	330
Rated fuse short-		(/	()					
Back up fuse			(A)	315	400	500	630	800
R.M.S. value			(kA)	50	50	50	50	50
Peak value			(kA)	27	30	37	40	50
Mechanical endure	ance		n°	8000	8000	8000	8000	8000
Electrical endurance			n°	1500	1500	1500/200	1500	1500/200
Rated capacitor po			kVAR	140	180	180	300	300
Power losses for po			(W)	5.9	9.4	14.8	15.6	25.7
Cable section			mmq	240	240	240	2x185	2x240
Bars dimension			mm	2x25x5	2x25x5	2x25x5	2x32x6	2x40x6
Operation torque			Nm	18	18	18	34	34
- Poramon longue		3P	kg	3.5	3.5	3.5	5.5	5.5
Net weight $\frac{3P}{4P}$		٠.	a	J.5	0.0	0.0	1 0.0	0.0

Moulded Case Circuit Breakers MY, fix installed









Schrack-Info

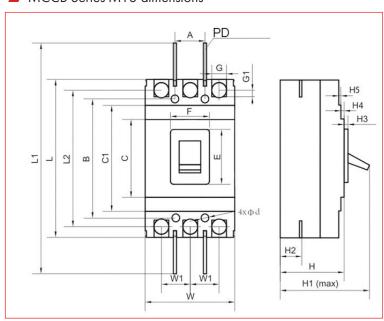
- MCCB's with fixed thermomagnetic release up to 125A MY1..838B (18kA), MY1..138B (25kA) and box-terminals
- MCCB's with fixed thermomagnetic release up to 250A MYZ2..138 (25kA) and MY2..431 (36kA)
- MCCB's with fixed thermomagnetic release up to 400A MY3..238 (50kA)

MCCB Series MY1, MY2 dimensions

Circuit Breaker Series MY1, MY2 dimensions

Dimension [mm]	MY1	MY2	
	PD	Phase o	dividers
	С	85	102
	Е	51	51
	F	23	23
	G	17.5	23
	G1	7,5	11.5
	Н	67	103.5
Overall	H1	86	127
dimensions	H2	25	24
	H3	5	5
	H4	7	5
	L	155	165
	L1	255	360
	L2	136	144
	W	90	105
	W1	30	35
	Α	30	35
Mounting dimensions	В	130.5	126
dillieli3i0ii3	Ød	4.5x6	5

■ MCCB Series MY3 dimensions



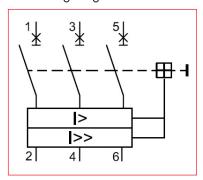
Circuit Breaker Series MY3 dimensions

Dimension [mm]			
	PD	Phase dividers	
	С	128	
	C1	174	
	Е	89	
	F	66	
	G	31	
	G1	12	
	Н	107	
Overall	H1	162	
dimensions	H2	38	
	H3	6	
	H4	5	
	H5	4.5	
	L	257	
	L1	459	
	L2	224	
	W	150	
	W1	48	
	Α	44	
Mounting dimensions	В	194	
aimensions	Ød	7	



■ Moulded Case Circuit Breakers MY, fix installed

MY1, MY2, MY3 Wiring diagram



Circuit Breaker Series MY1, MY2, MY3 Technical Data

MY Circuit Breaker		MY1838B	MY1138B	MY2138	MY2438	MY332238 / MY340238
Electric characteristics as per IEC 6094	17-2, EN 60947-2				1	•
Rated current I _n (A)	40°C	25,30,32,40,50	,63,80,100,125	160,2	00,250	315,400
Rated insulation voltage U _i (V)		80	00	8	00	800
Rated impulse withstand voltage U _{imp} (k	:V)	3	3		8	8
Rated operational voltage U _e (V)	AC 50/60Hz	69	90	6	90	690
Number of poles		3	3	3	3	3
Rated ultimate short-circuit	AC 220/230/240V	30	42	42	65	85
breaking capacity I _{cu} (kA, rms)	AC 380/400/415V	18	25	25	36	50
Test sequence: O-t-CO	AC 660/690V	3	3	5	8	12
Rated service short-circuit breaking cap	pacity I _{cs} (%I _{cu})	0.5		0,5		0.5
Test sequence: O-t-CO-t-CO		0,5		·	0,5	0,5
Isolation function		Х		X		Х
Utilization class		A			A	A
Mounting position		vertical and 90° in all directions		vertical and 90	° in all directions	vertical and 90° in all directions
Ambient temperature		-5°C up to +60°C		-5°C up	to +60°C	-5°C up to +60°C
Connection		Box te	rminal	for cable l	ıg or busbar	for cable lug or busbar
Shunt release)	(X	Х
Auxiliary contact		Х		Х		Х
Alarm contact			(X	Х
Dimension WxLxH (mm)		90x13	55x67	105×1	65×104	150x257x107
Weight (kg)		1	.4	2	2.1	5.7

MCCB MY Size 1 - 3-pole, 18kA



Schrack-Info

- Fitted with phase dividers and box-terminals for direct connection of bare cables 4 95mm² (solid or
- 1 auxiliary contact normal or 1 auxiliary contact tripped + 1 shunt release can be retrofitted
- Additional terminal covers retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
25 up to 125A with fixed thermomagnetic release and box-terminals			
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 25A with box terminals	MY1E-AF25-B	000 0-0	MY125838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 32A with box terminals	MY1E-AF32-B	000 0- 0	MY132838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 40A with box terminals	MY1E-AF40-B	000 0-0	MY140838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 50A with box terminals	MY1E-AF50-B	555 0- 6-	MY150838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 63A with box terminals	MY1E-AF63-B	000 0-0	MY163838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 80A with box terminals	MY1E-AF80-B	555 0- 8	MY180838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 100A with box terminals	MY1E-AF100-B	000 0-0	MY110838B
Moulded Case Circuit Breaker type AF, 3-pole, 18kA, 125A with box terminals	MY1E-AF125-B	388 0-8	MY112838B

MCCB MY Size 1 - 3-pole, 25kA



Schrack-Info

- Fitted with phase dividers and box-terminals for direct connection of bare cables 4 95mm² (solid or
- 1 auxiliary contact normal or 1 auxiliary contact tripped + 1 shunt release can be retrofitted
- Additional terminal covers retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
25 up to 125A with fixed thermomagnetic release and box-terminals			
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 25A with box terminals	MY1B-AF25-B	000 0-0	MY125138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 32A with box terminals	MY1B-AF32-B	388 0-0	MY132138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 40A with box terminals	MY1B-AF40-B	000 0-0	MY140138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 50A with box terminals	MY1B-AF50-B	300 0-0	MY150138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 63A with box terminals	MY1B-AF63-B	000 0-0	MY163138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 80A with box terminals	MY1B-AF80-B	388 0-8	MY180138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 100A with box terminals	MY1B-AF100-B	000 0-0	MY110138B
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 125A with box terminals	MY1B-AF125-B	355 0- 5	MY112138B



■ MCCB MY Size 1 - Accessories









MY1ZCN03

MY1ZS230R

Schrack-Info

- Auxiliary contacts
- Shunt release
- Terminal covers

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Accessories			
Auxiliary contact normal left 1 C/O for MY1	MY1-AN11L	000 0-0	MY1ZAN11L
Auxiliary contact trip left 1 C/O for MY1	MY1-AT11L	000 0-0	MY1ZAT11L
Set of terminal covers for MY1 3-pole	MY1-CN03	000 0-0	MY1ZCN03
Shunt release 230VAC right for MY1	MY1-S230R	000 0-0	MY1ZS230R

MY220138

Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal or 1 auxiliary contact tripped + 1 shunt release can be retrofitted
- Additional terminal covers retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 up to 250A with fixed thermomagnetic release			
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 160A	MY2B-AF160	555 0-0	MY216138
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 200A	MY2B-AF200	555 0- 8	MY220138
Moulded Case Circuit Breaker type AF, 3-pole, 25kA, 250A	MY2B-AF250	000 0-0	MY225138

MCCB MY Size 2 - 3-pole, 36kA



Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal or 1 auxiliary contact tripped + 1 shunt release can be retrofitted
- Additional terminal covers retrofit

MY216438

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 up to 250A with fixed thermomagnetic release			
Moulded Case Circuit Breaker type AF, 3-pole, 36kA, 160A	MY2C-AF160	000 0-0	MY216438
Moulded Case Circuit Breaker type AF, 3-pole, 36kA, 200A	MY2C-AF200	355 0- 6	MY220438
Moulded Case Circuit Breaker type AF, 3-pole, 36kA, 250A	MY2C-AF250	000 0-0	MY225438

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■ MCCB MY Size 2 - Accessories









MY2ZAT11L

Schrack-Info

- Auxiliary contacts
- Shunt release
- Terminal covers

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Accessories		
Auxiliary contact normal left 1 C/O for MY2	MY2-AN11L	MY2ZAN11L
Auxiliary contact trip left 1 C/O for MY2	MY2-AT11L	MY2ZAT11L
Set of terminal covers for MY2 3-pole	MY2-CN03	MY2ZCN03
Shunt release 230VAC right for MY2	MY2-S230R	MY2ZS230R

■ MCCB MY Size 3 - 3-pole, 50kA



Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal or 1 auxiliary contact tripped + 1 shunt release can be retrofitted

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
315 up to 400A with fixed thermomagnetic release			
Moulded Case Circuit Breaker type AF, 3-pole, 50kA, 315A	MY3N-AF320	555 0- 0	MY332238
Moulded Case Circuit Breaker type AF, 3-pole, 50kA, 400A	MY3N-AF400	999 0- 9	MY340238

MCCB MY Size 3 - Accessories







MY3ZAN 11 L

Schrack-Info

- Auxiliary contacts
- Shunt release

DESCRIPTION	TYPE NO. AVAILABLE	ORDER NO.
Accessories		
Auxiliary contact normal left 1 C/O for MY3	MY3-AN11L	MY3ZAN11L
Auxiliary contact trip left 1 C/O for MY3	MY3-AT11L	MY3ZAT11L
Shunt release 230VAC right for MY3	MY3-S230R	MY3ZS230R

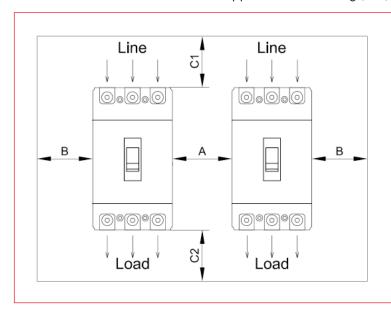
SCHRACK TECHNIK

■ Technical data MY1, MY2, MY3

■ Technical data - Accessories MY

	MY1ZAN11L/AT11L	MY2ZAN11L/AT11L	MY3ZAN11L/AT11L	MY1ZS230R	MY2ZS230R	MY3ZS230R
Rated operational voltage U _e	230VAC 50/60Hz 24VDC	230VAC 50/60Hz 24VDC	230VAC 50/60Hz 24VDC	AC230VAC 50/60Hz	AC230VAC 50/60Hz	AC230VAC 50/60Hz
Conventional switching current I _e						
AC-15	24V/3A, 48V/3A, 110V/2.5A, 230V/2A	24V/3A, 48V/3A, 110V/2.5A, 230V/2A	24V/3A, 48V/3A, 110V/2.5A, 230V/2A			
DC-13	24VDC 0.5A	24VDC 0.5A	24VDC 0.5A			
Short circuit protection						
max. Fuse	4A gG	4A gG	4A gG	4A gG	4A gG	4A gG
max. Miniature Circuit breaker	4 B characteristics	4A B characteristics	4A B characteristics	4A B characteristics	4A B characteristics	4A B characteristics
Terminal capacity Flexible conductor	prewired 3 x 0.25mm ²	prewired 3 x 0.25mm ²	prewired 3 x 0.25mm ²	prewired 2 x 0.25mm ²	prewired 2 x 0.25mm ²	prewired 2 x 0.25mm ²
Minimum command time				20-60ms	20-60ms	20-60ms
Maximum command time				500ms	500ms	500ms
Power consumption during operation				110VA at release	110VA at release	110VA at release
Maximum opening delay				100ms	100ms	100ms

■ Safe distance between electrical apparatus for mounting (mm)



Distance (min)/Type	MY1	MY2	MY3
Line side C1	50	50	100
Load side C2	20	20	20
Right side	25	25	25
Left side	25	25	25

Screws and torques for MY1, 2, 3

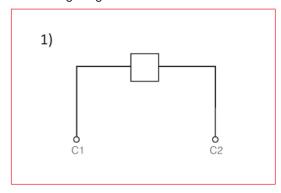
MCCB	Screw for connecting cable lug or bus-bar	torque
MY1B		
MY2	M8x16 / hexagon socket screw, key size 6mm	10Nm
MY3	M10x30 / open ended wrench, size 17mm	22Nm
	•	•
МССВ	Terminal screw of box-terminal BT	torque
	Terminal screw of box-terminal BT BT, built in, 1,5-16mm², M8 / slotted screw	torque 3Nm
MCCB MY1B		
	BT, built in, 1,5-16mm ² , M8 / slotted screw	3Nm

Connection screws



- A) Box terminals at all MY1 (M8) for bare cables
- B) Front connection at MY2 (M8x16) for cable lug
- C) Front connection at MY3 (M10x30) for cable lug

■ Wiring diagram - Inner accessories

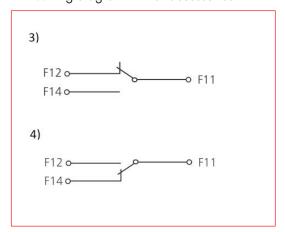


Shunt release MY.ZS230

 U_s =70-110 U_n , circuit breaker reliably operates Long-time electrification is prohibited Minimum command time 20-60ms

1) Shunt release wiring diagram

■ Wiring diagram - Inner accessories

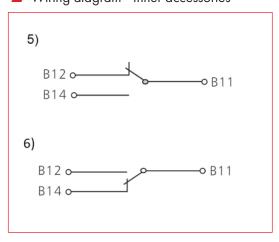


Auxiliary contact "normal" MY.ZAN11

Function: Indication of contacting status

- 3) Circuit breaker is at breaking status (OFF)
- 4) Circuit breaker is at making status (ON)

Wiring diagram - Inner accessories



Auxiliary contact "tripped" MY.ZAT11

Function: indication of reason for circuit breaker releasing;

- Over-load
- . Short circuit
- · Operation of shunt-trip releasing

When circuit breaker normally makes and breaks, alarm contact not operates.

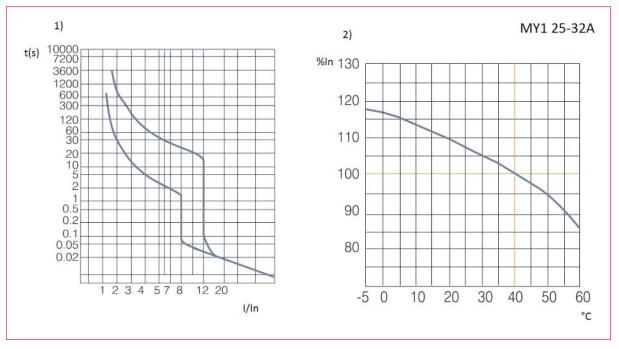
After free tripping (or tripping due to failure), alarm contact operates

and after the circuit breaker again normally operates, alarm contact recovers original status.

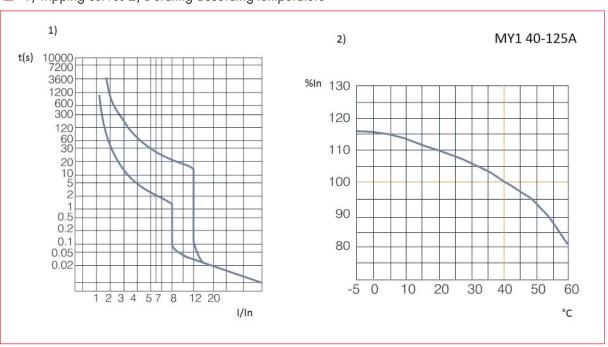
- 5) Circuit breaker is at breaking or making status (ON/OFF)
- 6) Circuit breaker is at free release (or alarming) status (TRIPPED)

Tripping characteristics MY

1) Tripping curves 2) Derating according temperature

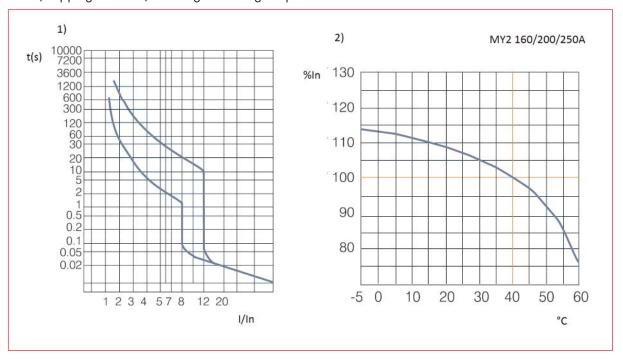


1) Tripping curves 2) Derating according temperature

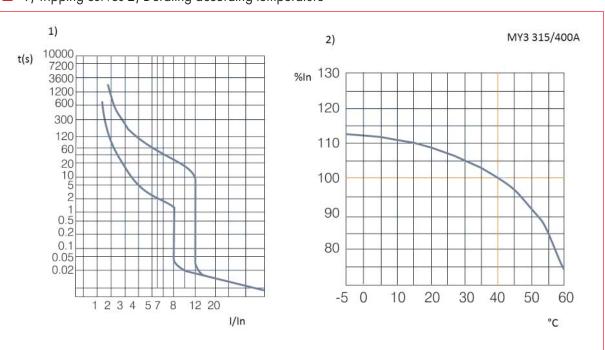


Tripping characteristics MY

1) Tripping curves 2) Derating according temperature



✓ 1) Tripping curves 2) Derating according temperature



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Moulded Case Circuit Breakers and Load Switches MZ, fix installed





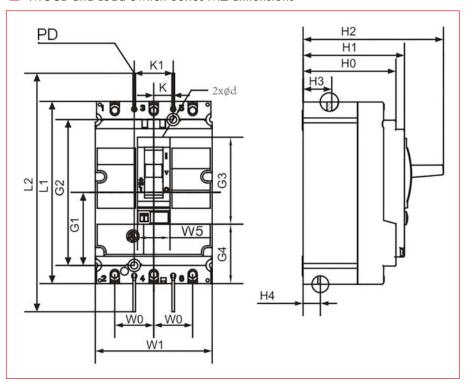




Schrack-Info

- Load-Break Switches MZ 112035B ... 125A, MZ225035 ... 250A and MZ340035 ... 400A, without release unit
- MCCB's with thermomagnetic release up to 125A MZ1..431B (36kA) Ir adjustable, li fixed at 10xIr
- MCCB's with thermomagnetic release up to 250A MZ2..431 (36kA) and MZ2..231 (50kA) Ir und li adjustable
- MCCB's with thermomagnetic release up to 400A MZ3..231 (50kA) Ir and li adjustable
- MCCB's with delayed, electronic release up to 630A MZ3..333 (70kA) Ir, Isd, Ii, tr and tsd adjustable

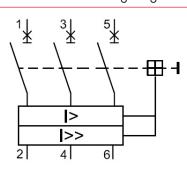
MCCB and Load Switch Series MZ dimensions



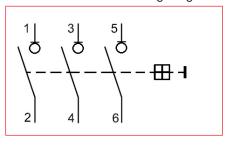
Circuit Breaker Series MZ dimensions

Dimensions [mm]	PD	LI	L2	но	H1	H2	нз	Н4	K	K1	G1	G2	G3	G4	wo	WI	W5	d
MZ1		140	243	72	79	108	18.5	17.5	15	30	56	112	66,5	46	30	90	24.5	5.5
MZ2	Phase Dividers	157	373	82	88	126	22	20	17.5	35	62.5	125	75.5	47.5	35	105	26.5	5.5
MZ3	1	255	482	109	113	168	26	24	22.5	45	100	200	114	87	45	140	51.5	6.5

MCCB MZ Wiring diagram



Load Switch MZ Wiring diagram





■ Moulded Case Circuit Breakers and Load Switches MZ, fix installed

■ Circuit Breaker Series MZ Technical Data

MZ Circuit Breaker		MZ1431B	MZ2431	MZ2231	MZ3231	MZ3333			
Electric characteristics as per IEC 60947-2 an				1	•				
Rated current I _n (A)	40°C	20, 25, 32, 40, 50, 63, 80, 100, 125			315, 400	250, 400, 630			
Rated insulation voltage U _i (V)		750	7.	50	750	<i>7</i> 50			
Rated impulse with stand voltage U _{imp} (kV)		8		8	8	8			
	AC 50/60Hz	690	6'	90	690	690			
Rated operational voltage U _e (V)	DC	500	5	00	500	-			
Number of poles		3	;	3	3	3			
	AC 220V/230V/240V	50	50	85	85	85			
	AC 380V/400V/415V	36	36	50	50	70			
Rated ultimate short-circuit	AC 440V	36	36	50	50	50			
breaking capacity	AC 500V	35	35	35	35	35			
(kA RMS) I _{cu}	AC 660V/690V	8	8	8	10	10			
	DC 250V (1P)	25	25	25	25	-			
	DC 500V (2P)	25	25	25	25	-			
Rated service breaking capacity I _{cs} = %I _{cu}	,	100¹	10	001	1001	1001			
Suitability for isolation		X		X	X	X			
Utilization category		A		A	A	A			
Safety insulation		X		X	X	X			
<u> </u>	Mechanical	8500		7000		4000			
Life (CO recycle)	Electric	1500	1000		4000 1000	1000			
otection		Thermo-magnetic	Thermo-magnetic		Thermo-magnetic	Electronic			
Adjustable overload I, (A)		0.81 x ln		.1 x ln	0.81 x ln	0.41 x ln			
Adjustable time delay of overload T _r (sec)		0.01 X III	0.0	-	-	318			
Adjustable undelayed short circuit current I _i (A)		fixed at 10 x I _a	5 1	0 x I ₂	510 x I _n	1.512 x ln			
Adjustable delayed short circuit current $I_{sd}(A)$		-		- ·		OFF / 1.58 x lr			
Adjustable time delay of delayed short circuit of	current T . (sec)	-		-	-	0.10.4			
Release units	Softern isa (See)	Х		X	X	Х			
Over-load protection		X	X		X	X			
Short-circuit protection		X	X		X	X			
Mounting position		^ 1		l and 90° in all dire		Λ			
Ambient temperature		-25°C up to +70°C							
Fixed		X		X	X	Х			
Auxiliaries for control and indication		X		X	X	X			
Additiones for control and matchion	Handle	X		X	X	X			
Manual	Direct or extended rotary handle	Х		X	Х	X			
Electric operating mechanism	. Sidi y Halidio	X		X	X	Х			
Shunt and under-voltage release		X		X	X	X			
Auxiliary and alarm contact		X		X	X	X			
Pad locking system		X		X	X	X			
Mounting and connection accessories		X		X	X	X			
Connection		Box terminals		ble lug	for cable lug	for cable lug			
Front connection plate		DOX letitilitais		X	X	X			
Terminal covers		- X		^ X	X	X			
		X		^ X	X	X			
				^		. ^			
Interphase barrier Dimension and weight	Dimension WxLxH (mm)	90x140x79	105×157×88		140x255x113	140x255x113			

¹ Note: When U_e is ≥ 660V, $I_{cs} = 50\% I_{cu}$

Load Break Switch Series MZ Technical Data

MZ Load Break Switch	MZ112035B	MZ225035	MZ340035	
Rated current I _n (A)		125 A	250A	400A
Rated operational voltage U _e (V)		690VAC	690VAC	690VAC
Rated short-time withstand current I _{cw} (kA)	AC 415V 50/60Hz	1.5kA	3kA	4.8kA
Rated short-time withstand current I _{cw} (KA)	AC 690V 50/60Hz	1.5kA	3kA	4.8kA
Detail the et aire vit has alien a conserie. I (IA)	AC 415V 50/60Hz	2.2kA	4.5kA	7.2kA
Rated short-circuit breaking capacity I _{cm} (kA)	AC 690V 50/60Hz	2.2kA	4.5kA	7.2kA
Mounting position		vertic	al and 90° in all dire	ections
Ambient temperature			-25°C to +70°C	
Standards IEC/EN 60947-3				
Dimension WxLxH (mm)		90x140x79	105×157×88	140x255x113
Weight (kg)		1.1	1.9	7.3



MCCB MZ Size 1 - 3-pole, 36kA



Schrack-Info

- Fitted with phase dividers and box-terminals for direct connection of bare cables 4 95mm² (solid or
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be
- Remote operator, mechanical interlock, Lever-lock, long terminal cover and rotary handles available

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
20 up to 125A with thermomagnetic release and box-terminals			
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 20A with box terminals	MZ1C-A20-B	000 0-0	MZ120431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 25A with box terminals	MZ1C-A25-B	585 0-6	MZ125431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 32A with box terminals	MZ1C-A32-B	000 0-0	MZ132431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 40A with box terminals	MZ1C-A40-B	383 0-6	MZ140431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 50A with box terminals	MZ1C-A50-B	000 0=0	MZ150431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 63A with box terminals	MZ1C-A63-B	585 0-6	MZ163431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 80A with box terminals	MZ1C-A80-B	000 0-0	MZ180431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 100A with box terminals	MZ1C-A100-B	000 0-0	MZ110431B
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 125A with box terminals	MZ1C-A125-B	000 0-0	MZ112431B

Load Switches MZ Size 1 - 3-pole



Schrack-Info

- Fitted with phase dividers and box-terminals for direct connection of bare cables 4 95mm² (solid or
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted

MZ112035B

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
125A with box terminals			
Load Break Switch, 3-pole, 125A with box terminals	MZ1-N-125-B	000 0-0	MZ112035B

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■ MZ Size 1 - Accessories



MZAZAN 11



MZAZAT11



MZ1ZBT03



MZ1ZCL03



MZ1ZJM03



MZ1ZLL00



MZ1ZM230



MZ1ZRD00



MZ1ZREE3



MZ1ZS230



Schrack-Info

- Auxiliary contacts for all sizes
- Box-terminals
- Terminal covers
- Rotary handle or door coupling rotary handle
- Lever lock
- Mechanical interlock
- Remote operator
- Shunt release
- Undervoltage release

•			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Accessories			
Auxiliary contact normal 1 C/O for MZ	MZ-AN11	000 0-0	MZAZAN11
Auxiliary contact trip 1 C/O for MZ	MZ-AT11	300 0-0	MZAZAT11
6 Box terminals 4-95mm² for MZ1 3-pole	MZ1-BT03	000 0-0	MZ1ZBT03
Set of terminal covers long for MZ1 3-pole	MZ1-CL03	300 0-0	MZ1ZCL03
Mechanical interlock for MZ1 3-pole	MZ1-JM03	000 0-0	MZ1ZJM03
Padlock for MZ1	MZ1-LL00	355 0- 0-	MZ1ZLL00
Remote operator 230VACDC for MZ1	MZ1-M230	000 0-0	MZ1ZM230
Direct rotary handle (lockable) for MZ1	MZ1-RD	300 0-0	MZ1ZRD00
Extended rotary handle (lockable) for MZ1 3-pole	MZ1-REE3	988 0= 0=	MZ1ZREE3
Shunt release 230VAC for MZ1	MZ1-S230	355 0- 0	MZ1ZS230
Undervoltage release 230VAC for MZ1	MZ1-U230	000 0-0	MZ1ZU230

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MCCB MZ Size 2 - 3-pole, 36kA



Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted
- Front connections up to 2 cable lugs retrofit
- Tunnel-terminals for connection of bare cables 2x (35 125mm²) retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 up to 250A with thermomagnetic release			
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 160A	MZ2C-A160	000 0-0	MZ216431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 200A	MZ2C-A200	300 0-0	MZ220431
Moulded Case Circuit Breaker type A, 3-pole, 36kA, 250A	MZ2C-A250	000 0-0	MZ225431

MCCB MZ Size 2 - 3-pole, 50kA



Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted
- Front connections up to 2 cable lugs retrofit
- Tunnel-terminals for connection of bare cables 2x (35 125mm²) retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
160 up to 250A with thermomagnetic release			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 160A	MZ2N-A160	000 0-0	MZ216231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 200A	MZ2N-A200	388 0- 0	MZ220231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 250A	MZ2N-A250	000 0-0	MZ225231

Load Switches MZ Size 2 - 3-pole



MZ225035

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted
- Front connections up to 2 cable lugs retrofit
- Tunnel-terminals for connection of bare cables 2x (35 125mm²) retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
250A			
Load break switch, 3-pole, 250A	MZ2-N-250	000 0-0	MZ225035





■ MZ Size 2 - Accessories







MZAZAT 11



MZ2ZCL03



MZ2ZFC03



MZ2ZLL00



MZ2ZJM03



MZ2ZM230



MZ2ZRD00



MZ2ZREE3



MZ2ZTT03



MZ2ZS230



MZ2ZU230

Schrack-Info

- Auxiliary contacts for all sizes
- Terminal covers
- Rotary handle or door coupling rotary handle
- Lever lock
- Mechanical interlock
- Remote operator
- Tunnel terminals
- Front connections
- Shunt release
- Undervoltage release

<u> </u>			
DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Accessories			
Auxiliary contact normal 1 C/O for MZ	MZ-AN 11	000 0-0	MZAZAN11
Auxiliary contact trip 1 C/O for MZ	MZ-AT11	333 0-0	MZAZAT11
Set of terminal covers long for MZ2 3-pole	MZ2-CL03	000 0-0	MZ2ZCL03
6 Front connection plates for MZ2	MZ2-FC03	555 0- 0	MZ2ZFC03
Mechanical interlock for MZ2 3-pole	MZ2-JM03	000 0-0	MZ2ZJM03
Padlock for MZ2	MZ2-LL00	000 0-0	MZ2ZLL00
Remote operator 230VACDC for MZ2	MZ2-M230	000 0-0	MZ2ZM230
Direct rotary handle (lockable) for MZ2	MZ2-RD	999 0-9	MZ2ZRD00
Extended rotary handle (lockable) for MZ2 3-pole	MZ2-REE3	000 0-0	MZ2ZREE3
Shunt release 230VAC for MZ2/3	MZ2/3-S230	000 0-0	MZ2ZS230
6 Tunnel terminals 2 x (35-120mm²) for MZ2	MZ2-TT03	000 0-0	MZ2ZTT03
Undervoltage release 230VAC for MZ2/3	MZ2/3-U230	000 0-0	MZ2ZU230

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MZ332231

Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted
- Tunnel-terminals for connection of bare cables 1x (120 240mm²) or 2x (120 240mm²) retrofit

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
315 up to 400A with thermomagnetic release			
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 315A	MZ3N-A315	000 0-0	MZ332231
Moulded Case Circuit Breaker type A, 3-pole, 50kA, 400A	MZ3N-A400	355 0-6	MZ340231

MCCB MZ Size 3 - 3-pole, 70kA



Schrack-Info

- Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be retrofitted
- Tunnel-terminals for connection of bare cables 1x (120 240mm²) or 2x (120 240mm²) retrofit

MZ340333

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
250 up to 630A with delayed electronic release			
Moulded Case Circuit Breaker type VE, 3-pole, 70kA, 250A	MZ3H-VE250	000 0-0	MZ325333
Moulded Case Circuit Breaker type VE, 3-pole, 70kA, 400A	MZ3H-VE400	000 0-0	MZ340333
Moulded Case Circuit Breaker type VE, 3-pole, 70kA, 630A	MZ3H-VE630	000 0-0	MZ363333

Load Switches MZ Size 3 - 3-pole



Schrack-Info

- · Fitted with phase dividers, for connection with cable lugs
- 1 auxiliary contact normal + 1 auxiliary contact tripped + 1 shunt- or undervoltage release can be
- Tunnel-terminals for connection of bare cables 1x (120 240mm²) or 2x (120 240mm²) retrofit

MZ340035

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
400A			
Load break switch, 3-pole, 400A	MZ3-N-400	000 0=0	MZ340035



MZ Size 3 - Accessories



MZAZAT11



MZAZAN 11



MZ3ZCL03



MZ3ZJM03



MZ3ZLL00



MZ3ZM230



MZ3ZRD00



MZ3ZREE3



MZ3ZTT03



MZ3ZTT03M2



MZ2ZS230



MZ2ZU230

Schrack-Info

- Auxiliary contacts for all sizes
- Terminal covers
- Rotary handle or door coupling rotary handle
- Lever lock
- Mechanical interlock
- Remote apperator
- Tunnel terminals
- Front connections
- Shunt release
- Undervoltage release

DESCRIPTION	TYPE NO.	AVAILABLE	ORDER NO.
Accessories			
Auxiliary contact normal 1 C/O for MZ	MZ-AN 11	000 0-0	MZAZAN11
Auxiliary contact trip 1 C/O for MZ	MZ-AT11	333 0-6	MZAZAT11
Set of terminal covers long for MZ3 3-pole	MZ3-CL03	000 0-0	MZ3ZCL03
6 Front connection plates for MZ3 3-pole	MZ3-FC03	000 0-0	MZ3ZFC03
Mechanical interlock for MZ3 3-pole	MZ3-JM03	000 0-0	MZ3ZJM03
Padlock for MZ3	MZ3-LL00	000 0-6	MZ3ZLL00
Remote operator 230VACDC for MZ3	MZ3-M230	000 0-6	MZ3ZM230
Direct rotary handle (lockable) for MZ3	MZ3-RD	000 0-0	MZ3ZRD00
Extended rotary handle (lockable) for MZ3	MZ3-REE3	000 0-0	MZ3ZREE3
Shunt release 230VAC for MZ2/3	MZ2/3-S230	999 0-6	MZ2ZS230
6 Tunnel terminals 120-240mm² for MZ3	MZ3-TT03	000 0-0	MZ3ZTT03
6 Tunnel terminals 2x (120-240mm²) for MZ3	MZ3-TT03M2	000 0-0	MZ3ZTT03M2
Undervoltage release 230VAC for MZ2/3	MZ2/3-U230	000	MZ2ZU230

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■ Technical data MZ1, MZ2, MZ3

■ Temperature compensation coefficient of breaker with thermo-magnetic release

Ambient temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
Compensation coefficient	1.2	1.175	1.15	1.125	1.1	1.075	1.05	1.025	1	0.975	0.95	0.925	0.9	0.875	0.85

■ Temperature compensation coefficient of breaker with electronic release

Ambient temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
MZ3 (250-400 A) - Compensation coefficient	1	1	1	1	1	1	1	1	1	1	1	0.98	0.95	0.93	0.9
MZ3 (630 A) - Compensation coefficient	1	1	1	1	1	1	1	1	1	0.98	0.95	0.93	0.9	0.88	0.85

Power loss per pole

D	MZ1	MZ2	MZ3	MZ3
Resistance/power loss mΩ/W	with TM release	with TM release	with TM release	with electronic release
20	6.2/2.5			
25	4.873			
32	3.7/3.8			
40	2.6/4.2			
50	2.7/6.8			
63	1.7/6.7			
80	1.3/8.3			
100	0.85/8.5			
125	0.71/11.1			
160		0.55/14		
200		0.55/22		
250		0.55/34.4		0.13/8.1
315			0.28/27.8	
400			0.24/38.4	0.13/20.8
630				0.13/51.6

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■ Technical data MZ1, MZ2, MZ3

■ Technical data - Accessories MZ

	MZAZAN11/AT11	MZ1ZS230	MZ2ZS230	MZ3ZS230	MZ1ZU230	MZ2ZU230	MZ3ZU230
	up to 400VAC 50/60Hz	220-240VAC	220-240VAC	220-240VAC	220-240VAC	220-240VAC	220-240VAC
Rated operational voltage $U_{\scriptscriptstyle e}$	24/48/ 110VDC	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Conventional switching current I _e							
AC-15	24V/6A, 48V/6A, 110V/5A, 230V/4A, 400V/1.5A	-	-	-	-	-	-
DC-13	24V/1A, 48V/0.2A, 110V/0.05A	-	-	-	-	-	-
Short circuit protection							
max. Fuse	6A gG	6A gG	6A gG	6A gG	6A gG	6A gG	6A gG
max. Miniature Circuit breaker	6A B characteristics	6A B characteristics	6A B characteristics	6A B characteristics	6A B characteristics	6A B characteristics	6A B characteristics
Terminal capacity							
solid conductor or flexible conductor with end sleeve	1.5mm ²	prewired 2 x 0.5mm ²	prewired 2 x 0.5mm ²	prewired 2 x 0.5mm ²	prewired 2 x 0.5mm ²	prewired 2 x 0.5mm ²	prewired 2 x 0.5mm ²
Minimum command time	-	20-60ms	20-60ms	20-60ms	20-60ms	20-60ms	20-60ms
Maximum command time	-	500ms	500ms	500ms	continuous	continuous	continuous
Power consumption during operation	-	110VA at release	110VA at release	110VA at release	15VA	15VA	15VA
Maximum opening delay	-	100ms	100ms	100ms	100ms	100ms	100ms
Maximum operating cycles, mechanical	500000	-	-	-	-	-	-
Service life, electrical	100000	-	-	-	-	-	-

	1	1	I
	MZ1ZM230	MZ2ZM230	MZ3ZM230
Rated operational voltage U _e	220-240VAC	220-240VAC 50/60Hz 220VDC	220-240VAC
	/220VDC	50/60Hz 220VDC	50/60Hz 220VDC
Short circuit protection			
max. Fuse	6A gG	6A gG	6A gG
max. Miniature Circuit breaker	6A B characteristics	6A B characteristics	6A B characteristics
Terminal capacity			
solid conductor or flexible conductor with end sleeve	2 x 1.5mm ²	2 x 1.5mm ²	2 x 1.5mm ²
Minimum command time	100ms	100ms	100ms
Maximum command time	continuous	continuous	continuous
Power consumption during operation	150VA/W	200VA/W	300VA/W
Total making time	≤500ms	≤500ms	≤1000ms
Service life, mechanical operations	15000	10000	7500
Maximum operating cycles / hour	60 / h	50 / h	40 / h

Screws and torques for MZ1, 2, 3

МССВ	Screw for connecting cable lug, front connection or bus-bar	torque
MZ1B		
MZ2	M8x20 / hexagon socket screw, key size 6mm	11 Nm
MZ3	M10x30 / open ended wrench, size 17mm	40Nm

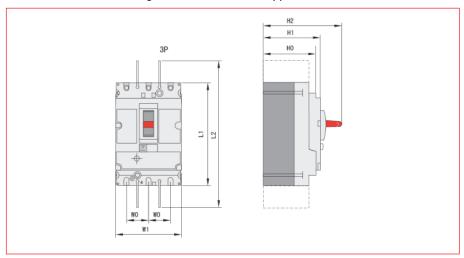
мссв	Terminal screw of box-terminal BT or tunnel-terminal TT	torque	Screw for fixing tunnel terminal to MCCB	torque
MZ1B	BT, built in, 4-95mm ² , hexagon socket screw/ key size 4mm	8Nm		
MZ2	TT, MZ2ZTT03, $2 \times (35-120 \text{mm}^2)$, hexagon socket screw/ key size 6mm	each 30Nm	M8 / hexagon socket screw, key size 6mm	11 Nm
MZ3	TT, MZ3ZTT03, built in, 120-240mm², hexagon socket screw, key size 8mm	35Nm	M10 / hexagon socket screw, key size 6mm	40Nm
IVIZS	TT, MZ3ZTT03M2, 2 x (120-240mm²), hexagon socket screw, key size 8mm	each 35Nm	M10 / hexagon socket screw, key size 8mm	40Nm

■ Connection screws

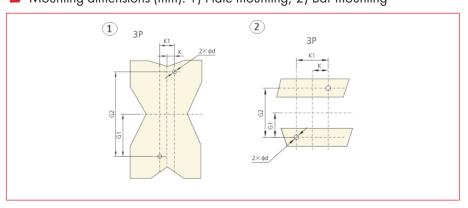


- A) Box terminals at all MZ1 (M8) for bare cables
- B) Front connection at MZ2 (M8x20) for cable lug
- C) Front connection at MZ3 (M10x30) for cable lug

Overall and mounting dimensions of fixed type for front connection



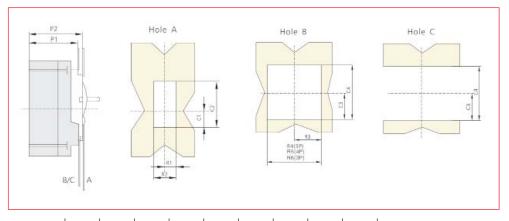
Mounting dimensions (mm): 1) Plate mounting, 2) Bar mounting



Model	L1	L2	HO	H1	H2	K	K1	K2	G1	G2	W0	W1	d (mm)
MZ1	140	240	72	79	103	15	30	60	56	112	30	90	6
MZ2	157	357	82	88	126	17.5	35	70	62.5	125	35	105	6
MZ3	255	474	95	113	168	22.5	45	90	100	200	45	140	6

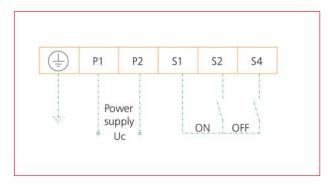


Cut-out dimensions (mm)



Model	P1	P2	R1	R2	R3	R4	C1	C2	C3	C4
MZ1	73	80	13	26	46.5	93	26	68	50.5	101
MZ2	83	90	14.5	29	54	108	33	<i>7</i> 8	56.5	113
MZ3	109	114	26.5	53	<i>7</i> 1.5	143	41.5	116	108	205

■ Wiring diagram - Motor operator MZ.ZM230



■ Motor-driven mechanism MZ.ZM230

Protection degree: IP40

Functions:

Reliable insulation; Isolation function indication:

0 (breaking), 1 (making) and free tripping indication; Free releasing of circuit breaker.

Making and breaking the breaker manually or automatically.

Manual operation:

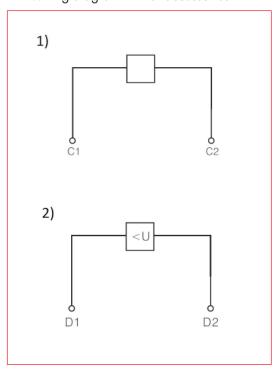
Turn "manual/auto" switch to "manual" position and then turn the handle to make and break the breaker Automatic operation:

Turn "manual/auto" switch to "auto" position and then push the button to make and break the breaker remotely.

The make/break operation is carried out via pulse or self-retaining type signal control.

Operational range: 85 - 110% $U_{\scriptscriptstyle n}$

■ Wiring diagram - Inner accessories



Inner accessories

Shunt release MZ.ZS230

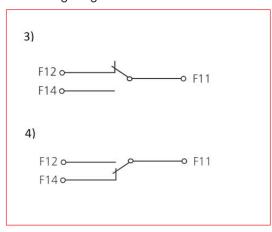
 U_s =70-110 $U_{\rm n}$, circuit breaker reliably operates Long-time electrification is prohibited Minimum command time 20-60ms

Under-voltage release MZ.ZU230

U₃=35-70% Un, circuit breaker reliably breaks
U₃≥85% U_n, circuit breaker from making
Note: With under-voltage release, U₃≥85%Un, circuit breaker normally makes and breaks

- 1) Shunt release wiring diagram
- 2) Under-voltage release wiring diagram

■ Wiring diagram - Inner accessories

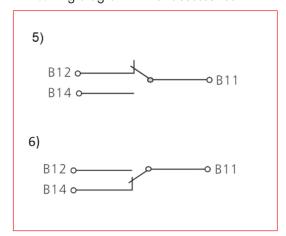


Auxiliary contact "normal" MZAZAN 11

Function: Indication of contacting status

- 3) Circuit breaker is at breaking status (OFF)
- 4) Circuit breaker is at making status (ON)

■ Wiring diagram - Inner accessories



Auxiliary contact "tripped" MZAZAT11

Function: indication of reason for circuit breaker releasing;

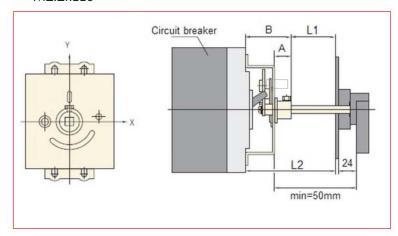
- Over-load
- · Short-circuit
- · Operation of under-voltage or shunt-trip releasing

When circuit breaker normally makes and breaks, alarm contact not operates.

After free tripping (or tripping due to failure), alarm contact operates and after the circuit breaker again normally operates, alarm contact recovers original status.

- 5) Circuit breaker is at breaking or making status (ON/OFF)
- 6) Circuit breaker is at free release (or alarming) status (TRIPPED)

Mounting dimensions economic extended rotary handle MZ.ZREE3



Economic extended rotary handle MZ.ZREE3

Protection degree: IP30

Functions:

Isolation function indication:

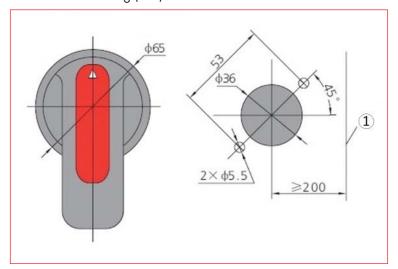
O (breaking), 1 (making) and free tripping indication;

At "OFF" status, the breaker can be fitted with 1-3 padlocks with a diameter of 5-8 mm (by customer).

This prevents the door of switchgear being opened unwantedly.

Dimension (mm)	MZ1	MZ2	MZ3
A	14	14	20
В	56	56	60
L1	261	253	253
L2	317	309	313

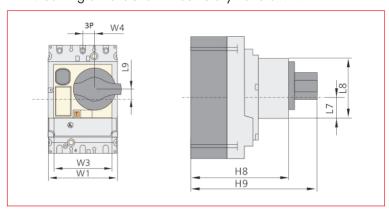
Handle mounting (mm)



Manual - Economic extended rotary handle MZ.ZREE



Mounting dimensions - Direct rotary handle MZ.ZRD



Direct rotary handle

Protection degree: IP40

Functions:

Reliable insulations;

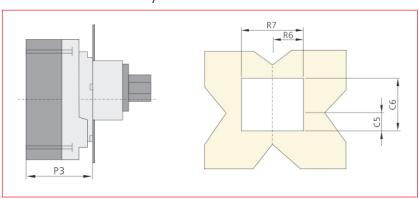
Isolation function indication;

0 (breaking), 1 (making) and free tripping indication;

Realize free tripping of circuit breaker;

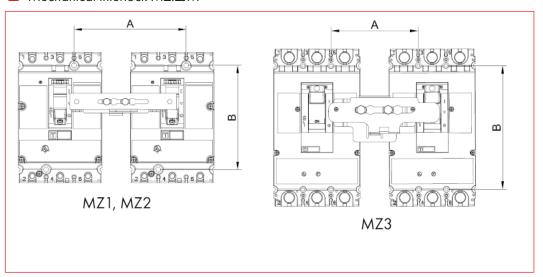
At "OFF" status, the breaker can be fitted with 1-3 padlocks with a diameter of 5-8 mm (by costumer)

Cut-out for direct rotary handle



Model	W1	W3	W4	L7	L8	L9	Н8	Н9	Р3	R6	R7	C 5	C6
MZ1, MZ2	35	93	9.25	39	73	9	125	159	90	48	96	40.5	76
MZ3	45	122	5	69	121	24.5	148	198	115	62	124	70.5	124

■ Mechanical interlock MZ.ZJM

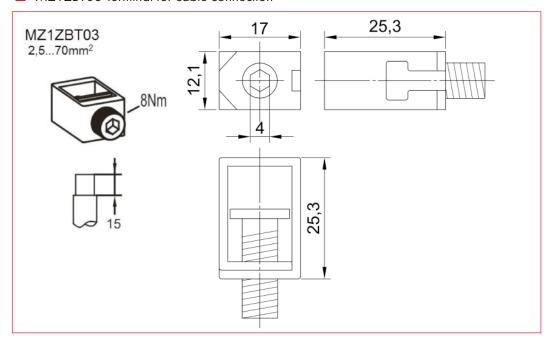


Mechanical interlock - dimensions (mm)

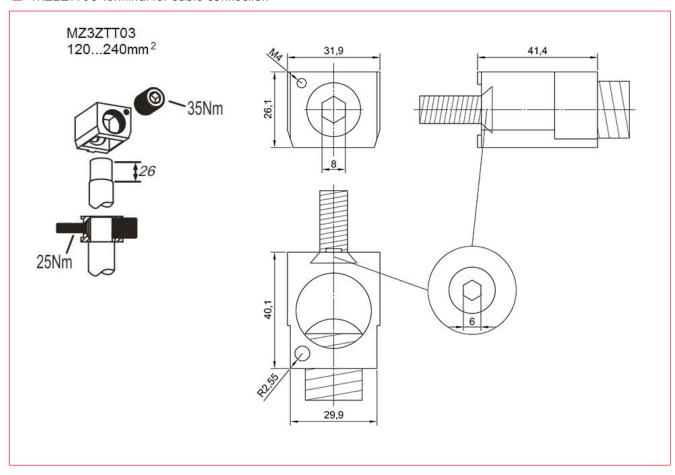
Model	Α	В
MZ1	120	112
MZ2	140	125
MZ3	143	201



■ MZ1ZBT03 Terminal for cable connection

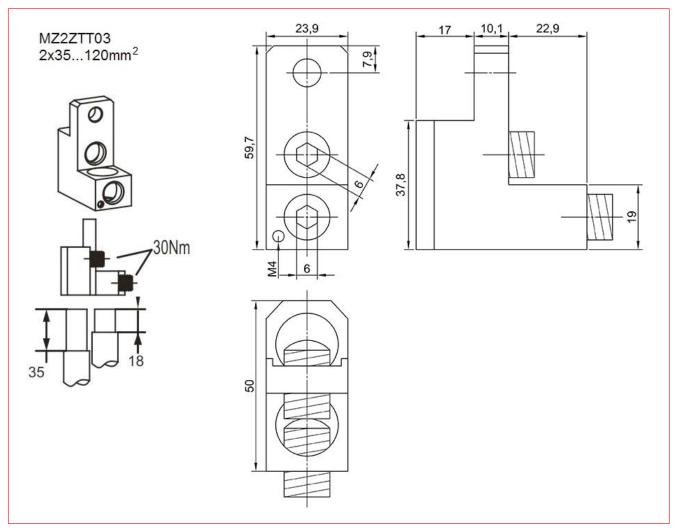


MZ2ZTT03 Terminal for cable connection



■ Dimensions MZ1, MZ2, MZ3 - accessories

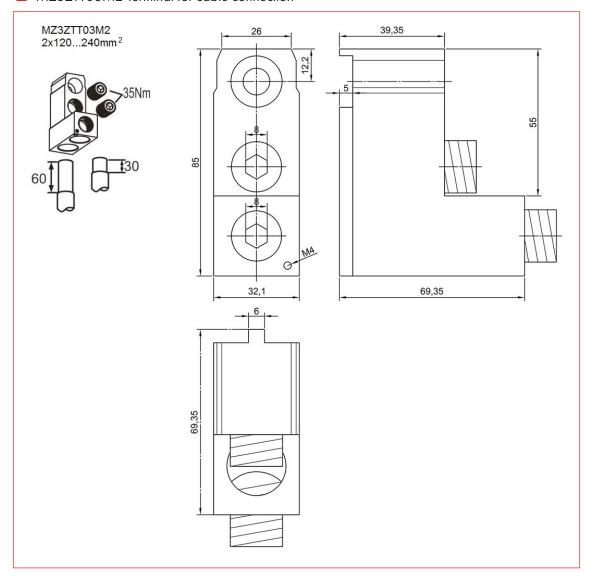
MZ3ZTT03 Terminal for cable connection



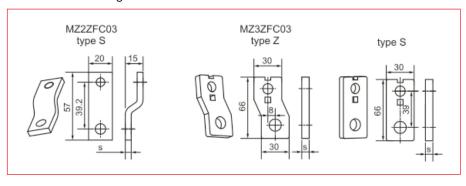
	s [mm]	Poles	L1	L2	L3
MZ2	5	2	S	S	S
MZ3	8	٦	Z	S	Z

■ Dimensions MZ1, MZ2, MZ3 - accessories

MZ3ZTT03M2 Terminal for cable connection

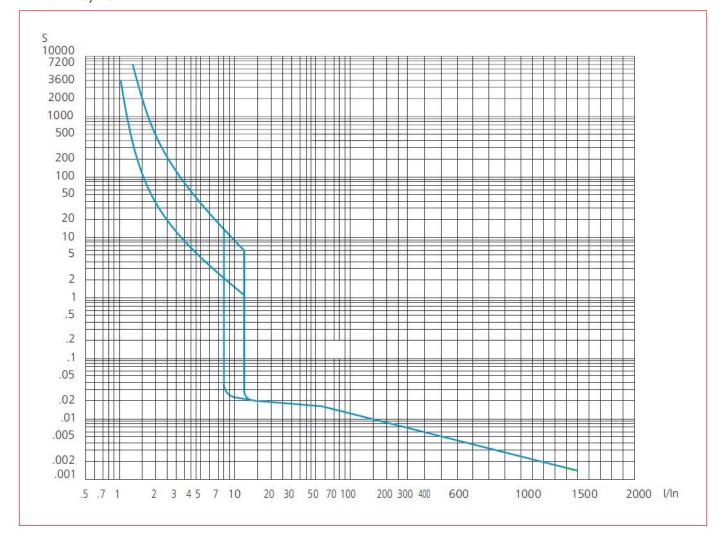


Front connecting bars

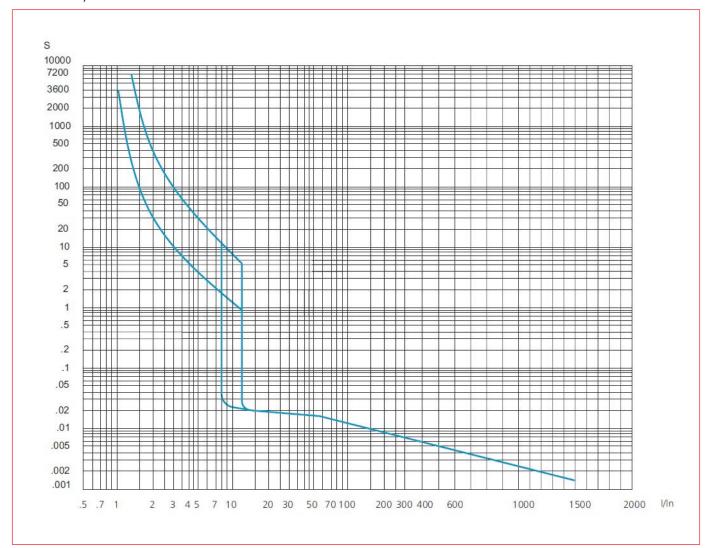


Tripping characteristics MZ

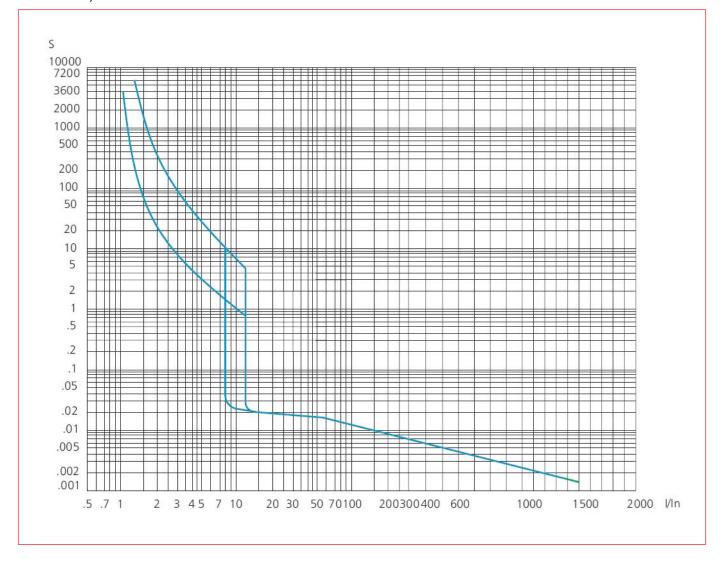
MZ1 16/20A



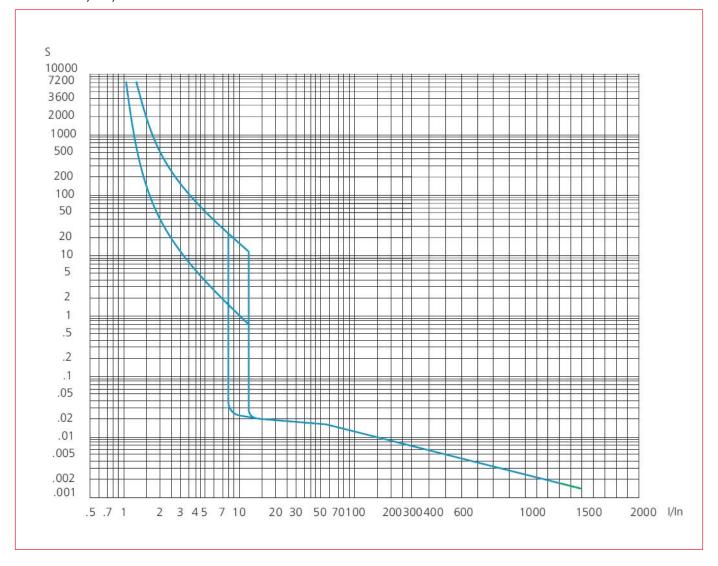
■ MZ1 25/32A



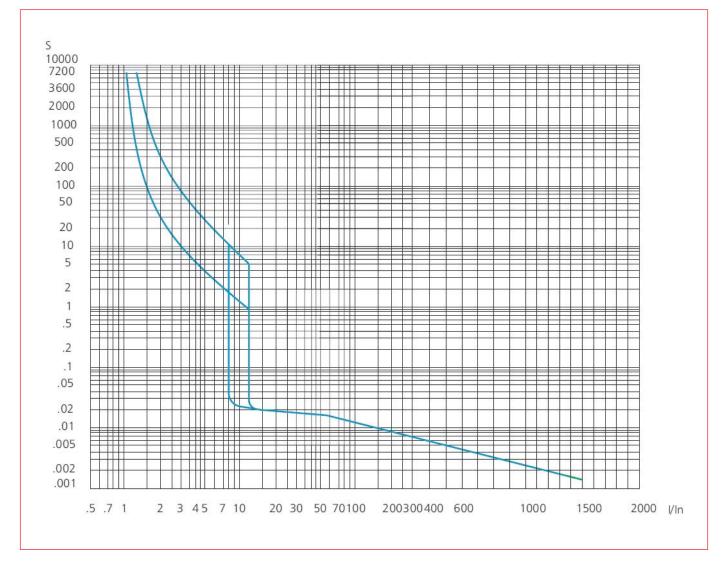
MZ1 40/50A



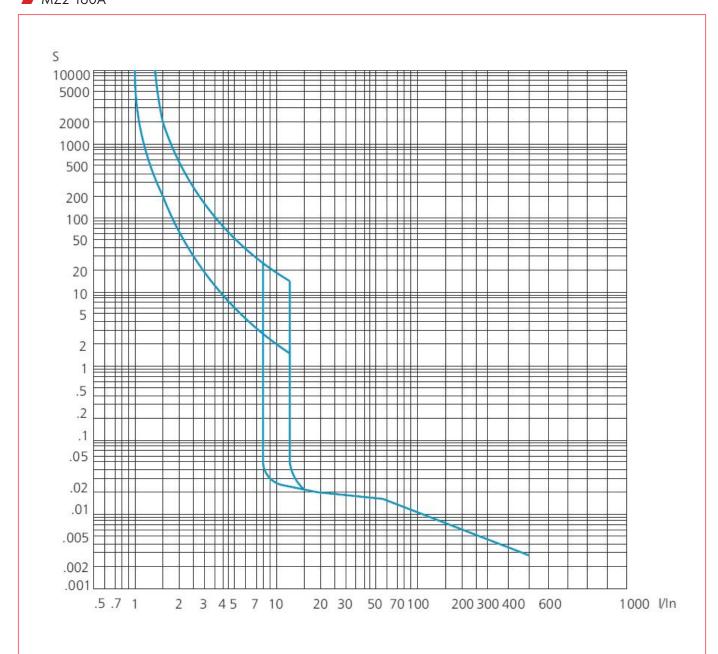
MZ1 63/80/100A



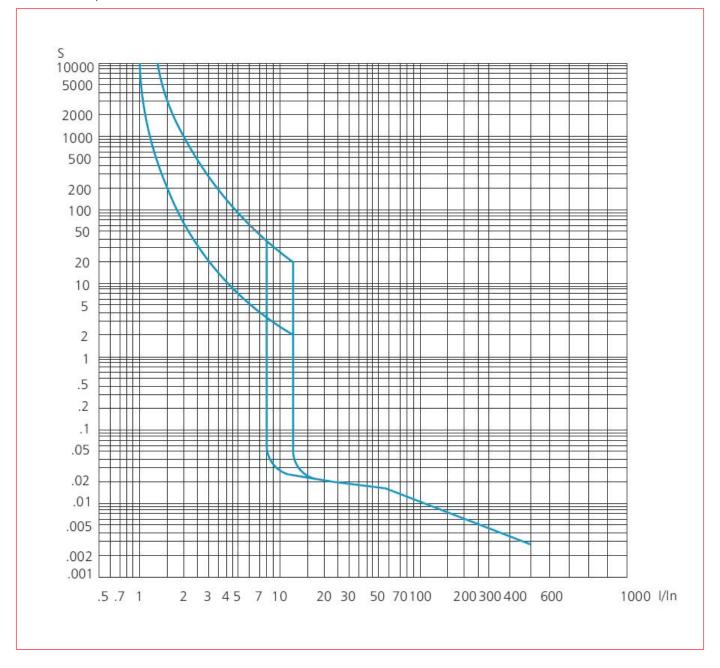
■ MZ1 125A



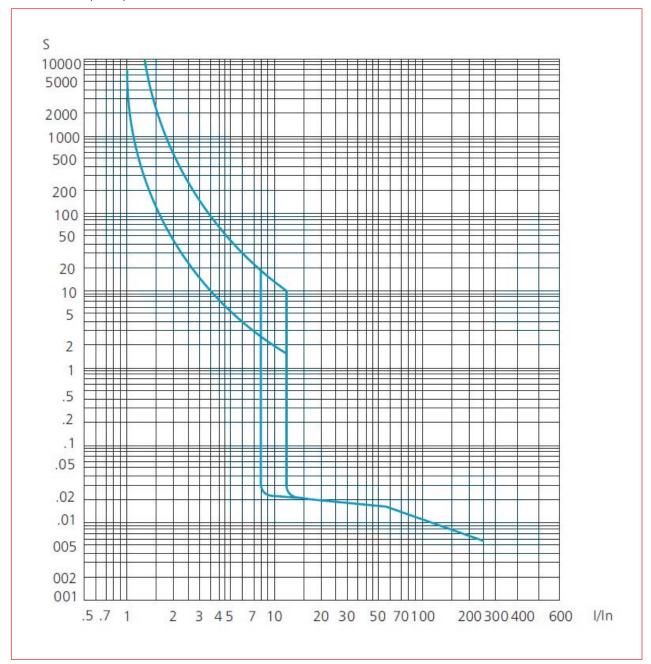
MZ2 160A



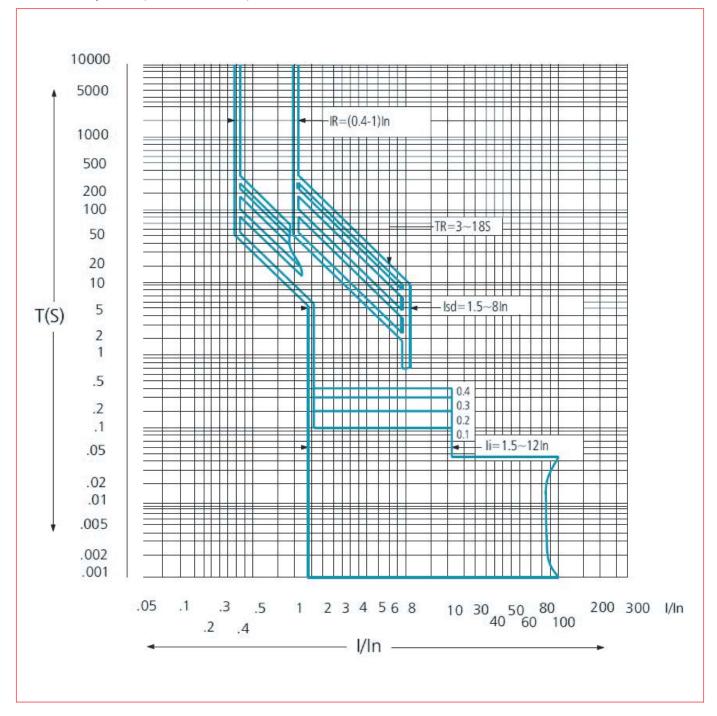
MZ2 200/250A



MZ3 250/320/400



MZ3 400/630A (electronic release)



ACB MO Size 1 - 3-pole, withdrawable

ACB MO Size 1 - 4-pole, withdrawable

ACB MO Size 2 - 3-pole, withdrawable

ACB MO Size 2 - 4-pole, withdrawable

ACB MO Size 3 - 3-pole, withdrawable

ACB MO Size 3 - 4-pole, withdrawable

ACB MO Size 1 - 3-pole

ACB MO Size 1 - 4-pole

ACB MO Size 2 - 3-pole

ACB MO Size 2 - 4-pole

ACB MO Size 3 - 3-pole

ACB MO Size 3 - 4-pole

MCCB MB Size 2 - 3-pole, 36kA

MCCB MB Size 2 - 4-pole, 150kA

MCCB MC Size 1 - 1-pole, 25kA

MCCB MC Size 1 - 3-pole, 100kA

MCCB MC Size 1 - 3-pole, 25kA

MCCB MC Size 1 - 3-pole, 50kA

MCCB MC Size 1 - 4-pole, 25kA

MCCB MC Size 1 - 4-pole, 50kA

MCCB MC Size 1 - Accessories

MCCB MC Size 1 - Accessories

MCCB MC Size 2 - 3-pole, 150kA

MCCB MB Size 3 - 3-pole, 36kA/50kA

MCCB MC Size 1 - 3-pole, 25kA, plug-in

MCCB MC Size 1 - 3-pole, 50kA, plug-in

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MCCB MC Size 3 - 4-pole, 50kA	66	ACB MO Size 1 - 3-pole, withdrawable	289
MCCB MC Size 3 - 4-pole, 150k	68	ACB MO Size 1 - 4-pole, withdrawable	292
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General Terms of Delivery

issued by the Austrian Electrical and Electronics Industry Association (FEEI)



1. Scope

- 1.1. These General Terms shall govern legal transactions between business enterprises, namely the delivery of commodities and, mutatis mutandis, the rendering of services. Software transactions are with precedence governed by the Software Conditions issued by the Austrian Electrical and Electronics Industry Association, assembly work by the Terms and Conditions for Assembly Work issued by the Austrian Power Current and Light Current Engineering Industry and/or (where applicable) the Terms and Conditions for the Assembly of Electrical Equipment used in Medicine issued by the Austrian Electrical and Electronics Industry (the current versions are available at www.feei.at).
- 1.2. Any departure from the terms and conditions mentioned in 1.1 above shall be valid only if expressly accepted in writing by Seller.

2. Submission of offers

- 2.1. Seller's offers shall be deemed offers without engagement.
- 2.2. Tender documents and project documentation must not be duplicated nor made available to third parties without the permission of Seller. They may be claimed back at any time and shall be returned to Seller immediately if the order is placed elsewhere.

3. Conclusion of contract

- 3.1. The contract shall be deemed concluded upon written confirmation by Seller of an order received or upon dispatch of a delivery.
- 3.2. Particulars appearing in catalogues, folders etc. as well as any oral or written statements shall only be binding if Seller makes express reference to them in the confirmation of the order.
- 3.3. Subsequent amendments of or additions to the contract shall be subject to written confirmation.

4. Prices

- 4.1. Prices shall be quoted ex works or ex Seller's warehouse without VAT, packing and packaging, loading, disassembly, take-back and proper recycling and disposal of waste electrical and electronic equipment for commercial purposes as defined by the Ordinance Regulating the Handling of Waste Electrical Equipment. Buyer shall be liable for any and all charges, taxes or other duties levied in respect of delivery. If the terms of delivery include transport to a destination designated by Buyer, transport costs as well as the cost of any transport insurance desired by Buyer shall be borne by the latter. Delivery does not, however, include unloading and subsequent handling. Packaging materials will be taken back only by express agreement.
- 4.2. Seller reserves the right to modify prices if the order placed is not in accordance with the offer submitted.
- 4.3. Prices are based on costs obtaining at the time of the first quotation. In the event that the costs have increased by the time of delivery, Seller shall have the right to adjust prices accordingly.
- 4.4. In carrying out repair orders, Seller shall provide all services deemed expedient and shall charge Buyer for the same on the basis of the work input and/or expenditures required. The same holds for any services or additional services the expediency of which becomes apparent only as the repair order is executed. In such an event special notification of Buyer shall not be required.
- 4.5. Expenses for estimates of costs of repair and maintenance or for expert valuations shall be invoiced to Buyer.

5. Delivery

- 5.1. The period allowed for delivery shall commence at the latest of the following dates:a) the date of order confirmation by Seller;
 - b) the date of fulfilment by Buyer of all the conditions, technical, commercial and other, for which he is responsible;
 - c) the date of receipt by Seller of a deposit or security due before delivery of the goods in question.
- 5.2. Buyer shall obtain whatever licences or approvals may be required from authorities or third parties for the construction of plant and equipment. If the granting of such licences or approvals is delayed for any reason the delivery period shall be extended accordingly.
- 5.3. Seller may carry out, and charge Buyer for, partial or advance deliveries. If delivery on call is agreed upon, the commodity shall be deemed called off at the latest one year after the order was placed.
- 5.4. In case of unforeseeable circumstances or circumstances beyond the parties control, such as all cases of force majeure, which impede compliance with the agreed period of delivery, the latter shall be extended in any case for the duration of such circumstances; these include in particular armed conflicts, official interventions and prohibitions, delays in transport or customs clearance, damages in transit, energy shortage and raw materials scarcity, labour disputes, and default on performance by a major component supplier who is difficult to replace. The aforesaid circumstances shall be deemed to prevail irrespective of whether they affect Seller or his subcontractor(s).
- 5.5. If a contractual penalty for default of delivery was agreed upon by contracting parties when the contract was concluded, it shall be executed as follows, and any deviations concerning individual items shall not affect the remaining provisions: Where delay in performance can be shown to have occurred solely through the fault of Seller, Buyer may claim for each completed week of delay an indemnity

- of at most one half of one per cent, a total of no more than 5 %, however, of the value of that part of the goods to be delivered which cannot be used on account of Seller's failure to deliver an essential part thereof, provided the Buyer has suffered a damage to the aforesaid extent. Assertion of rights of damages exceeding this extent is precluded.
- 6. Passage of risk and place of performance
- 6.1. Unless otherwise agreed, the delivery of goods is considered sold EXW in accordance with INCOTERMS® 2010.
- 6.2. For services, the place of performance shall be the place indicated in the written order confirmation, secondary to that at which the service is actually rendered by Seller. The risk in respect of such services or any part thereof shall pass to Buyer at the time the services have been rendered.

7. Payment

- 7.1. Unless otherwise agreed, one third of the purchase price shall fall due at the time of receipt by Buyer of the order confirmation of Seller, one third after half the delivery period has elapsed and the balance at the time of delivery. Irrespective thereof the turnover tax comprised in the amount of the invoice shall be paid within 30 days of the invoice date. If bankruptcy proceedings are instituted against the assets of Buyer or if an application for bankruptcy proceedings is not granted for insufficiency of assets, deliveries shall only be made against cash in advance.
- 7.2. In the case of part settlements the individual part payments shall fall due upon receipt of the respective invoices. The same shall apply to amounts invoiced for additional deliveries or resulting from additional agreements beyond the scope of the original contract, irrespective of the terms of payment agreed upon for the principal delivery.
- 7.3. Payment shall be made without any discount free Seller's domicile in the agreed currency. Drafts and checks shall be accepted on account of payment only, with all interest, fees and charges in connection therewith (such as collection and discounting charges) to be borne by Buyer.
- 7.4. Buyer shall not be entitled to withhold or offset payment on the grounds of any warranty claims or other counterclaims.
- 7.5. Payment shall be deemed to have been effected on the date at which the amount in question is at Seller's disposal.
- 7.6. If Buyer fails to meet the terms of payment or any other obligation arising from this or other legal transactions, Seller may without prejudice to his other rights
 - a) suspend performance of his own obligations until payments have been made or other obligations fulfilled, and exercise his right to extend the period of delivery to a reasonable extent,
 - b) call in debts arisen from this or any other legal transactions and charge default interest amounting to 1.25 % per month plus turnover tax for these amounts beginning with the due dates, unless Seller proves costs exceeding this.
 - c) only perform other legal transactions against cash in advance in the case of qualified insolvency, in other words, following two delays in payment.
 In any case Seller has the right to invoice all expenses arising prior to a lawsuit.
 - In any case Seller has the right to invoice all expenses arising prior to a lawsuit, especially reminder charges and lawyer's fees.
- 7.7. Discounts or bonuses are subject to complete payment in due time.
- 7.8. Seller retains title to all goods delivered by him until receipt of all amounts invoiced including interests and charges. Buyer herewith assigns his claim out of a resale of conditional commodities, even if they are processed, transformed or combined with other commodities, to Seller to secure the latter's purchase money claim. In the case of resale granting respite Buyer shall have the power of disposal of the product under retention of ownership only with the proviso that upon reselling Buyer notifies the secondary buyer of the assignment for security or enters the assignment in his account books. Upon request Buyer has to notify the assigned claim and the debtor thereof to Seller, and to make all information and material required for his debt collection available and to notify the assignment to the third-party debtor. If the goods are attached or otherwise levied upon, Buyer shall draw attention to Sellers title and immediately inform Seller of the attachment or levy.

8. Warranty and acceptance of obligation to repair defects

- 8.1. Once the agreed terms of payment have been complied with, Seller shall, subject to the conditions hereunder, remedy any defect existing at the time of acceptance of the article in question whether due to faulty design, material or manufacture, that impairs the functioning of said article. From particulars appearing in catalogues, folders, promotional literature as well as written or oral statements which have not been included in the agreement no warranty obligations may be deduced.
- 8.2. Unless special warranty periods operate for individual items the warranty period shall be 12 months. These conditions shall also apply to any goods supplied, or services rendered in respect of goods supplied, that are firmly attached to buildings or the ground. The warranty period begins at the point of passage of risk acc. to paragraph 6.
- 8.3. For improved or exchanged parts, the warranty period shall start again, but shall end in any case 6 months after the original warranty period has expired.
- 8.4. If delivery or the performance of services is delayed for reasons outside the control of Seller, the warranty period shall begin 2 weeks after Seller is ready to deliver or perform services.

General terms of delivery

- 8.5. The foregoing warranty obligations are conditional upon the Buyer giving within a reasonable period notice in writing of any defects that have occurred and such notice reaching the Seller. Buyer shall prove within a reasonable period the presence of a defect, in particular he shall make available within a reasonable period to Seller all material and data in his possession. Upon receipt of such notice Seller shall, in the case of a defect covered by the warranty under 8.1 above, have the option to replace the defective goods or defective parts thereof or else to repair them on Buyer's premises or have them returned for repair, or to grant a fair and reasonable price reduction.
- 8.6. Any expenses incurred in connection with rectifying defects (e. g. expenses for assembly and disassembly, transport, waste disposal, travel and siteto-quarters time) shall be borne by Buyer. For warranty work on Buyer's premises Buyer shall make available free of charge any assistance, hoisting gear, scaffolding and sundry supplies and incidentals that may he required. Replaced parts shall become the property of Seller.
- 8.7. If an article is manufactured by Seller on the basis of design data, design drawings, models or other specifications supplied by Buyer, Seller's warranty shall be restricted to non-compliance with Buyers specifications.
- 8.8. Seller's warranty obligation shall not extend to any defects due to assembly and installation work not undertaken by Seller, inadequate equipment, or due to non-compliance with installation requirements and operating conditions, overloading of parts in excess of the design values stipulated by Seller, negligent or faulty handling or the use of inappropriate materials, nor for defects attributable to material supplied by Buyer. Nor shall Seller be li- able for damage due to acts of third parties, atmospheric discharges. Excess voltage and chemical influences. The warranty does not cover the replacement of parts subject to natural wear and tear. Seller accepts no warranty for the sale of used goods.
- 8.9. The warranty shall lapse immediately if, without written consent of Seller, Buyer himself or a third party not expressly authorised undertakes modifications or repairs on any items delivered.
- 8.10. Claims acc. to § 933b ABGB are struck by the statute of limitation with lapse of the period mentioned under point 8.2.
- 8.11. The provisions of sub-paragraphs 8.1 to 8.10 shall apply, mutatis mutandis, to all cases where the obligation to repair defects has to be accepted for other reasons laid down by law.

9. Withdrawal from contract

- 9.1. Buyer may withdraw from the contract only in the event of delays caused by gross negligence on the part of Seller and only after a reasonable period of grace has elapsed. Withdrawal from contract shall be notified in writing by registered mail.
- 9.2. Irrespective of his other rights Seller shall be entitled to withdraw from the contract
 - a) if the execution of delivery or the inception or continuation of services to be rendered under the contract is made impossible for reasons within the responsibility of Buyer and if the delay is extended beyond a reasonable period of grace allowed:
 - b) if doubts have arisen as to Buyer's creditworthiness and if same fails, on Seller's request, to make an advance payment or to provide adequate security prior to delivery, or
 - c) if, for reasons mentioned in 5.4, the period allowed for delivery is extended by more than half of the period originally agreed or by at least 6 months, or
 - d) if Buyer does not or does not properly meet the obligations imposed as per paragraph 13.
- 9.3. For the reasons given above withdrawal from the contract shall also be possible in respect of any outstanding part of the delivery or service contracted for.
- 9.4. If bankruptcy proceedings are instituted against Buyer or an application for bankruptcy proceedings is not granted for insufficiency of assets, Seller may withdraw from the contract without allowing a period of grace. If this withdrawal is taken, it shall take effect immediately upon the decision that the business will not be continued. If the business will be continued, a withdrawal shall not take effect until 6 months after the institution of bankruptcy proceedings or after an application for bankruptcy proceedings has not been granted for insufficiency of assets. In any case, the contract shall be terminated immediately unless the bankruptcy law to which Buyer is subject conflicts with this or if termination of the contract is necessary to prevent significant damages to Seller.
- 9.5. Without prejudice to Seller's claim for damages including expenses arising prior to a lawsuit, upon withdrawal from contract any open accounts in respect of deliveries made or services rendered in whole or in part shall be settled according to contract This provision also covers deliveries or services not yet accepted by Buyer as well as any preparatory acts performed by Seller. Seller shall, however, have the option alternatively to require the restitution of articles already delivered.
- 9.6. Withdrawal from contract shall have no consequences other than those stipulated
- 9.7. The assertion of claims on the ground of laesio enormis, error, or lapse of purpose by the Buyer is excluded.

10. Disposal of waste electrical and electronic equipment

- 10.1. The Buyer of electrical/electronic equipment for commercial purposes, incorporated in Austria, is responsible for the financing of the collection and treatment of waste electrical and electronic equipment as defined by the Ordinance Regulating the Handling of Waste Electrical Equipment, if he is himself the user of the electrical/electronic equipment. If the Buyer is not the end user, he shall transfer the full financial commitment to his customer by agreement and furnish proof thereof to the Seller.
- 10.2. The Buyer incorporated in Austria shall ensure that the Seller is provided with all information necessary to meet the Seller's obligations as manufacturer/ importer, particularly according to §§ 11 and 24 of the Ordinance Regulating the Handling of Waste Electrical Equipment and the Waste Management Act.
- 10.3. The Buyer incorporated in Austria is liable vis-à-vis the Seller for any damage and other financial disadvantages incurred by Seller due to Buyer's failure to meet or fully meet his financing commitment or any other obligations according to Article 10. The Buyer shall bear the burden of proof of performance of this obligation.

1. Seller's liability

- 11.1. Outside the scope of the Product Liability Act, Seller shall be liable only if the damage in question is proved to be due to intentional acts or acts of gross negligence, within the limits of statutory provisions. Seller's total liability in cases of gross negligence is limited to the net value of the order or EUR 500,000, depending on which amount is lower.
- 11.2. For each incident of damage, Seller shall be liable for 25% of the net value of the order or EUR 125,000, depending on which amount is lower.
- 11.3. Seller shall not be liable for damage due to acts of ordinary negligence nor for consequential damages or damages for pure economic loss, indirect damages, loss of production, financing costs, costs for replacement energy, loss of energy, data or information, loss of profits, loss of savings or interest, or damage resulting from third-party claims against buyer.
- 11.4. Seller shall not be liable for damages in case of non-compliance with instructions for assembly, commissioning and operation (such as are contained in instructions for use) or non-compliance with licensing requirements.
- 11.5. Claims that exceed the contractual penalties that were agreed on are excluded from the respective title. The provisions of paragraph 11 apply exclusively for all claims by Buyer against Seller, regardless of the legal basis or entitlement, and also apply to all employees, subcontractors and subsuppliers of Seller.

12. Industrial property rights and copyrights

- 12.1. Buyer shall indemnify Seller and hold him harmless against any claims for any infringement of industrial property rights raised against him if Seller manufactures an article pursuant to any design data, design drawings, models or other specifications made available to him by Buyer.
- 12.2. Design documents such as plans and drawings and other technical specifications as well as samples, catalogues, prospectuses, pictures and the like shall remain the intellectual property of Seller and are subject to the relevant statutory provisions governing reproduction, imitation, competition etc. The provisions of 2.2 above shall also cover design documents.

13. Compliance with export provisions

- 13.1. When passing on goods delivered by Seller to third parties (as well as any related documentation, regardless of the method of provision or the services performed by Seller [including technical support of any kind]), Buyer must comply with the applicable regulations of national and international (re-)export provisions. In any case, Buyer must observe the (re-)export provisions of Seller's country of residence, the European Union and the United States of America.
- 13.2. If necessary for export controls, Buyer must provide Seller with all necessary information immediately after being requested to do so, for example, information about the final recipient, final destination and purpose of the goods or services.

14. General

Should individual provisions of the contract or of these provisions be invalid the validity of the other provisions shall not be affected. The invalid provision shall be replaced by a valid one, which comes as close to the target goal as possible.

15. Jurisdiction and applicable law

Any litigations arising under the contract including litigations over the existence or non-existence thereof shall fall within the exclusive jurisdiction of the competent court at Sellers domicile; the competent court of the Bezirksgericht Innere Stadt, Vienna, shall have exclusive jurisdiction if Seller is domiciled in Vienna. The contract is subject to Austrian law excluding the referral rules. Application of the UN Convention on Contracts for the International Sale of Goods is renounced.

16. Provise

The execution of the contract by Seller is subject to the condition that there are no obstacles standing in the way of execution due to national or international (re-)export provisions, and especially no embargos and/or other sanctions.

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