

# Cubico

**SCHRACK**  
TECHNIK



## ■ Contactors Series CUBICO Mini, 3-pole

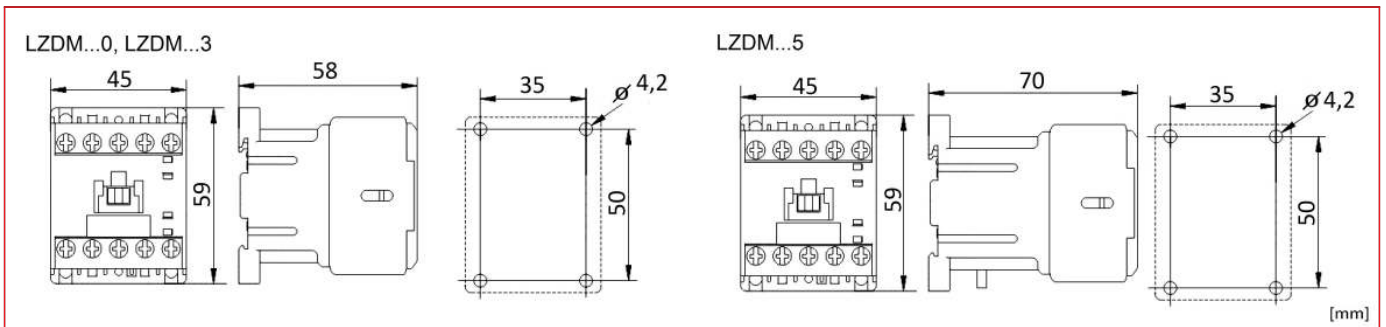


LZDM0613

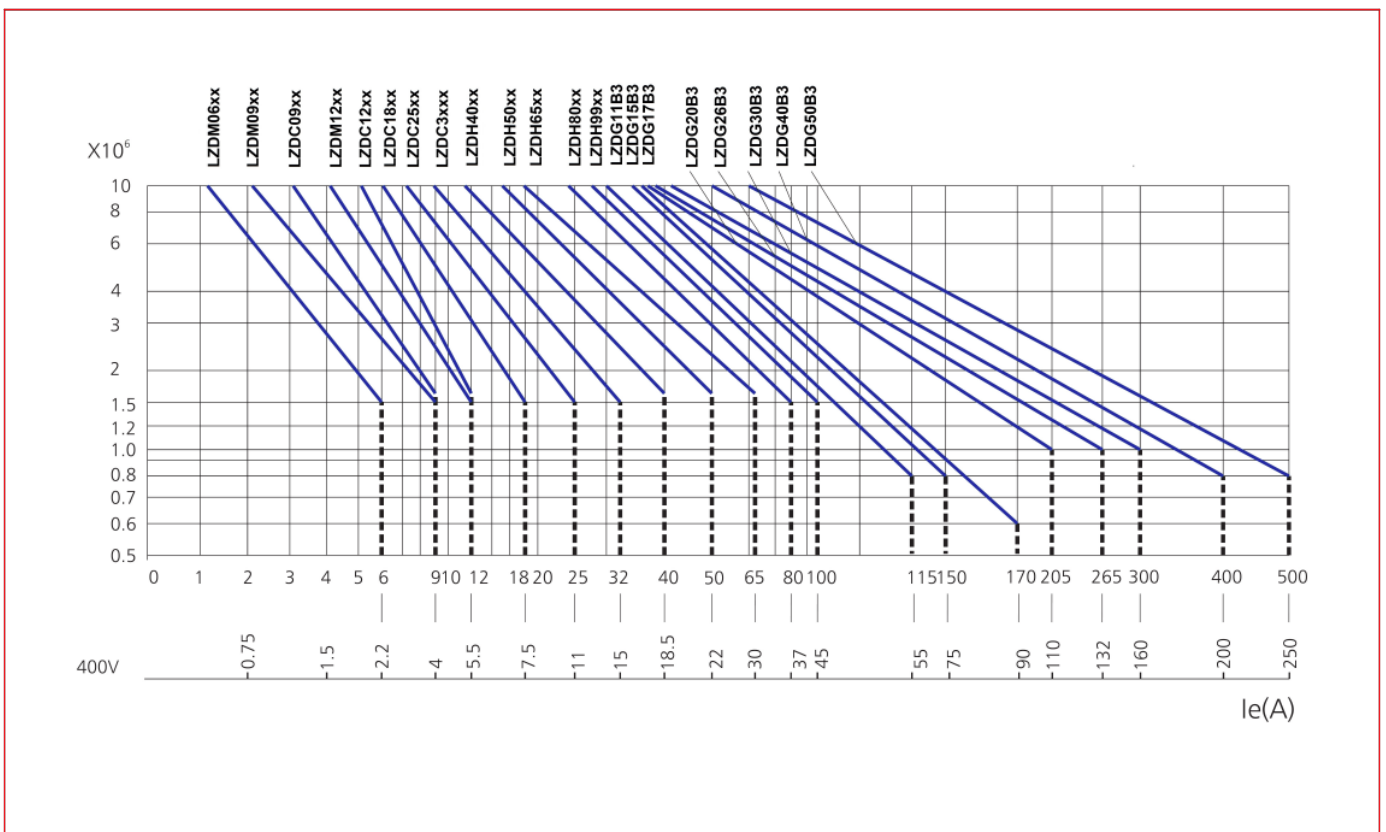
### ■ Schrack-Info

- Contactors from 2,2kW/6<sub>A</sub>, 4kW/9A or 5,5kW/12A, 3-pole with integrated auxiliary contact
- Available with 230VAC, 24VAC or 24VDC – coil
- Auxiliary contact NC or NO, depends of type
- Fitting surge suppressors are available
- Mountable to DIN-rail TS35 or mounting plate
- Further accessories find attached

### ■ Dimensions



### ■ Electric life curves (AC3 Ue=400V)



# Contactors Series CUBICO Mini, 3-pole

## Contactors Series CUBICO Mini, 3-pole

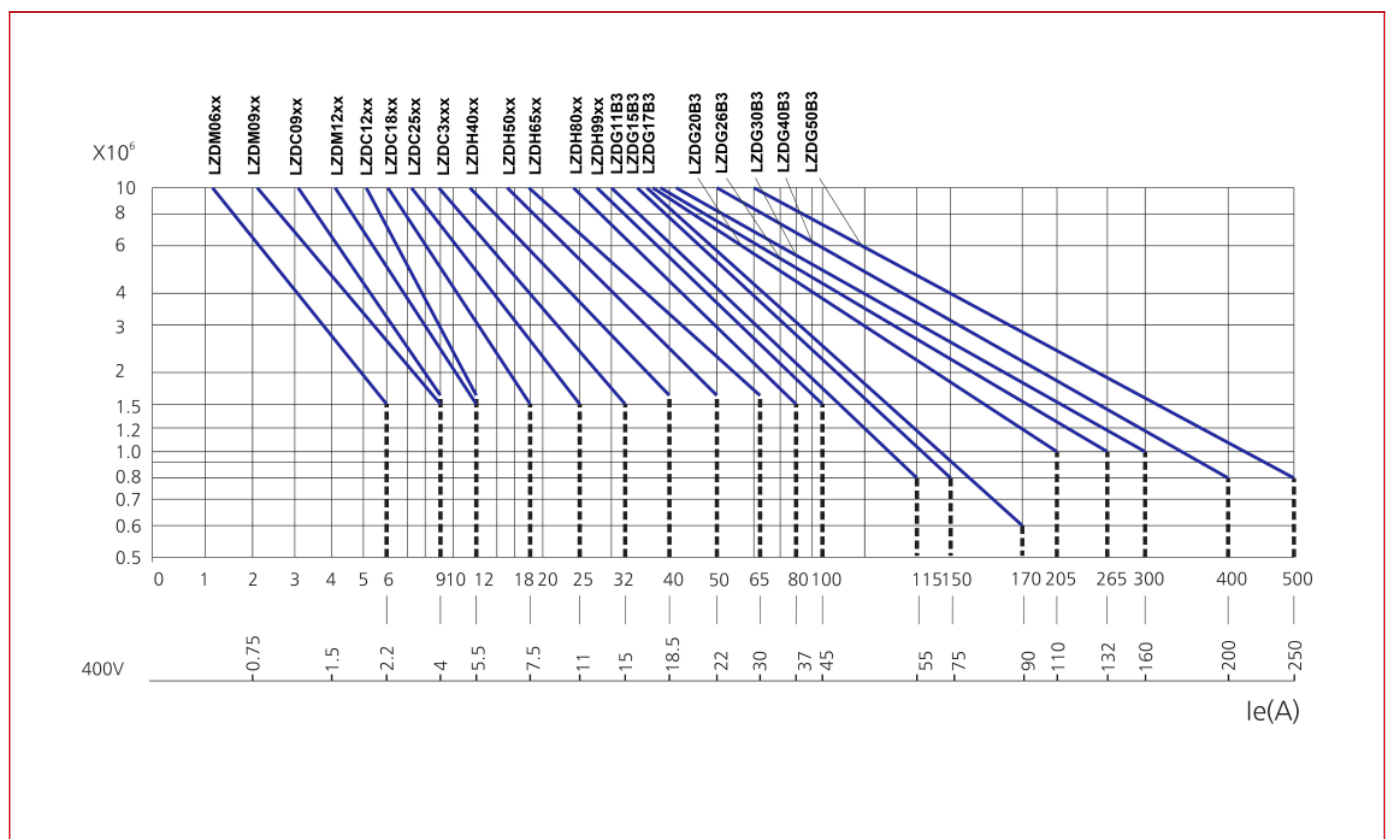
Type		LZDM06xx	LZDM09xx	LZDM12xx
Standard		EN 60947-4-1, IEC 60947-4-1		
Rated insulation voltage		690V AC		
Rated frequency		50/60Hz		
Rated impulse withstand voltage		6kV		
Overvoltage category		III		
Rated current AC1		20A	20A	20A
Rated current AC3	230V	6A	9A	12A
	400V	6A	9A	12A
	415V	6A	9A	12A
	690V	3,8A	4,9A	4,9A
Rated current AC4	230V	6A	9A	12A
	400V	6A	9A	9A
	415V	6A	9A	9A
	690V	3,8A	4,9A	4,9A
Rated making capacity		$10 \times I_c (AC3) / 12 \times I_c (AC4)$		
Rated breaking capacity		$8 \times I_c (AC3) / 10 \times I_c (AC4)$		
Short-time withstand current 10s		48A	72A	96A
Rated power AC3	230V	1,5kW	2,2kW	3kW
	400V	2,2kW	4kW	5,5kW
	415V	2,2kW	4kW	5,5kW
	690V	3kW	4kW	4kW
Operating frequency	AC3	1.200 operations/h		
	AC4	300 operations/h		
Electrical lifetime	AC3	1.200.000 operations		
Mechanical lifetime		10.000.000 operations		
Configuration of main contacts		3NO		
	3-pole			
Coil voltage	Us	24VAC, 230VAC or 24VDC		
Coil acting range	attraction	85% - 110% Us		
	release	AC: 20%-70% Us		
		DC: 10%-60% Us		
Coil average power	start	40VA		
	holding	7VA		
Heat wastage		4W		
Main contact action time	close	10 - 18 ms		
	disconnection	4 - 16 ms		
Protection degree		IP20		
Ambient air temperature		- 5C up to + 40°C		
Storage temperature		- 25C up to + 55°C		
Correction coefficient	40°C	1		
	50°C	0,875		
	60°C	0,75 (< 24h)		
	70°C	0,625 (< 24h)		
Altitude		2000m		
Atmosphere conditions		50% humidity at +40°C		
Installation position		plane and vertical +/- 22,5°		
Terminal capacity of main circuit	flexible cable with ferrule	single cable	1 - 2,5mm <sup>2</sup>	
		dual cable	1 - 2,5mm <sup>2</sup>	
	rigid cable	single cable	1 - 2,5mm <sup>2</sup>	
		dual cable	1 - 2,5mm <sup>2</sup>	
	Screw siz		M3	
	Torque		0,8 Nm	

**■** Contactors Series CUBICO Mini, 3-pole

Terminal capacity of control circuit		
flexible cable with ferrule	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
rigid cable	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
Screw size		M3
Torque		0,8 Nm
Terminal capacity of auxiliary contacts		
flexible cable with ferrule	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
rigid cable	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
Screw size		M3
Torque		0,8 Nm

**■** Circuit Diagrams

**■** Electric life curves (AC-2, AC-4 U<sub>e</sub>=400V)














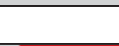






1) 3-pole with auxiliary contact, 1 NO

2) 3-pole with auxiliary contact, 1 NC

**■** Connection Diagrams

# Contactors Series CUBICO Mini, 3-pole

## Contactors Series CUBICO Mini, 3-pole

DESCRIPTION	AVAILABLE	ORDER NO.
<b>6A</b>		
3-pole, 2,2kW, 6A, 1NO, 230VAC		<a href="#">LZDM0613</a>
3-pole, 2,2kW, 6A, 1NC, 230VAC		<a href="#">LZDM0623</a>
3-pole, 2,2kW, 6A, 1NO, 24VAC		<a href="#">LZDM0610</a>
3-pole, 2,2kW, 6A, 1NC, 24VAC		<a href="#">LZDM0620</a>
3-pole, 2,2kW, 6A, 1NO, 24VDC		<a href="#">LZDM0615</a>
3-pole, 2,2kW, 6A, 1NC, 24VDC		<a href="#">LZDM0625</a>
<b>9A</b>		
3-pole, 4kW, 9A, 1NO, 230VAC		<a href="#">LZDM0913</a>
3-pole, 4kW, 9A, 1NC, 230VAC		<a href="#">LZDM0923</a>
3-pole, 4kW, 9A, 1NO, 24VAC		<a href="#">LZDM0910</a>
3-pole, 4kW, 9A, 1NC, 24VAC		<a href="#">LZDM0920</a>
3-pole, 4kW, 9A, 1NO, 24VDC		<a href="#">LZDM0915</a>
3-pole, 4kW, 9A, 1NC, 24VDC		<a href="#">LZDM0925</a>
<b>12A</b>		
3-pole, 5,5kW, 12A, 1NO, 230VAC		<a href="#">LZDM1213</a>
3-pole, 5,5kW, 12A, 1NC, 230VAC		<a href="#">LZDM1223</a>
3-pole, 5,5kW, 12A, 1NO, 24VAC		<a href="#">LZDM1210</a>
3-pole, 5,5kW, 12A, 1NC, 24VAC		<a href="#">LZDM1220</a>
3-pole, 5,5kW, 12A, 1NO, 24VDC		<a href="#">LZDM1215</a>
3-pole, 5,5kW, 12A, 1NC, 24VDC		<a href="#">LZDM1225</a>



## Accessories Series CUBICO Mini



LZZMH022

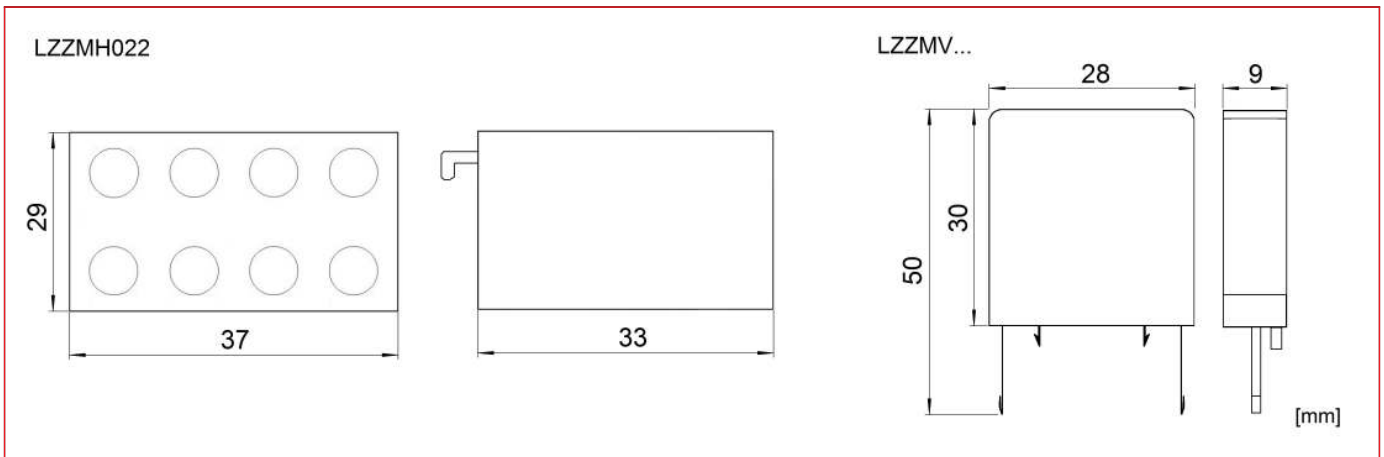


LZZMV024

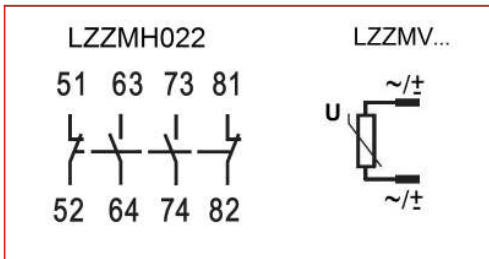
## Schrack-Info

- Auxiliary contacts for front-mounting for contactors series CUBICO Mini
- Protective modules for 24V and 230V coil of the contactors

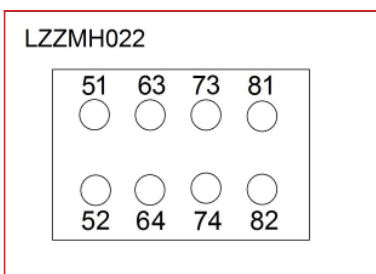
## Dimensions



## Circuit Diagram

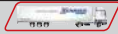




## Connection Diagram



# Contactors Series CUBICO Mini, 3-pole

## Accessories Series CUBICO Mini

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Auxiliary Contacts</b>		
Auxiliary contact front-type for CUBICO Mini, 2S+2Ö		<b>LZZMH022</b>
<b>Surge Suppressors</b>		
Varistor Mini 24 - 48 V AC/DC		<b>LZZMV024</b>
Varistor Mini 110 - 250 V AC		<b>LZZMV230</b>

## ■ Auxiliary Contactors Series CUBICO Mini, 4-pole

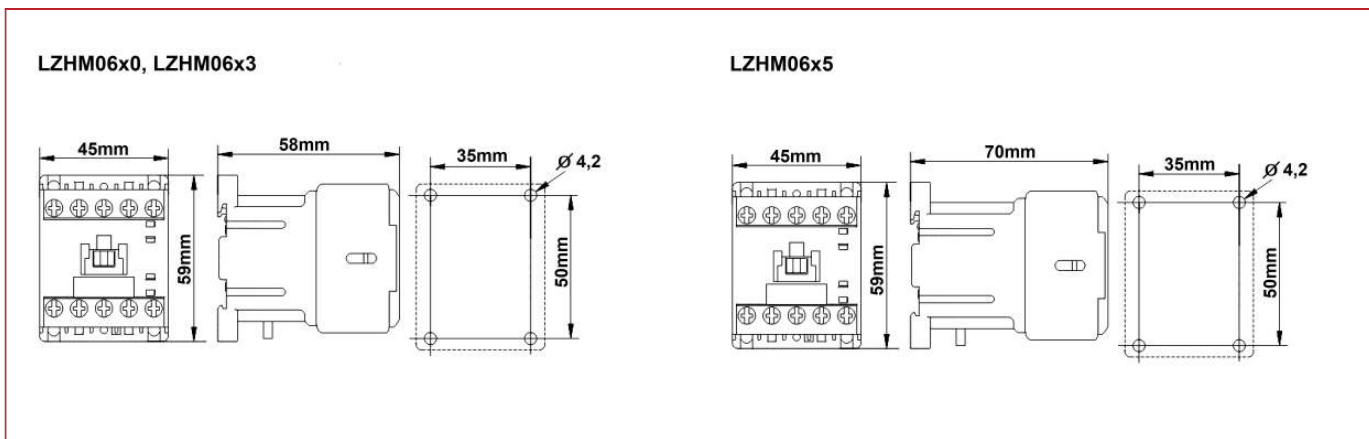


LZHM0673

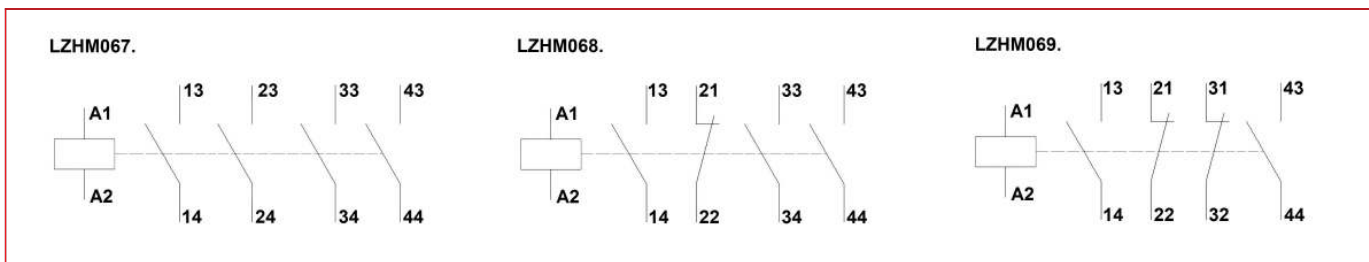
### ■ Schrack-Info

- Auxiliary contactors 6A
- 4-pole
- Available with 230VAC, 24VAC or 24VDC – coil
- Mountable to DIN-rail TS35 or mounting plate

### ■ Dimensions



### ■ Circuit Diagrams





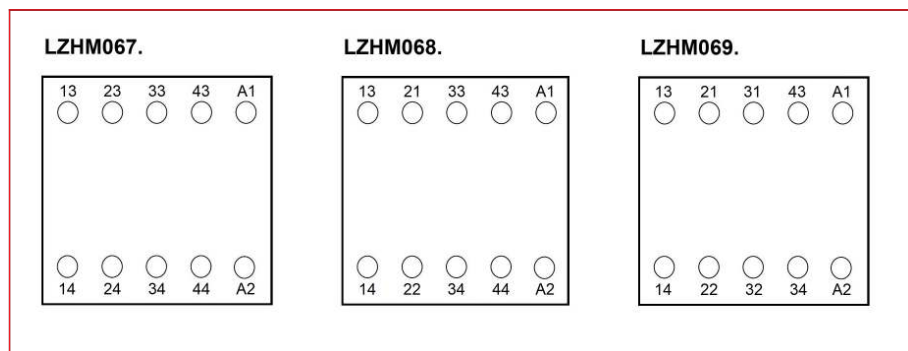
# Auxiliary Contactors Series CUBICO Mini, 4-pole

## Auxiliary Contactors Series CUBICO Mini, 4-pole

Type		6A
Standard		IEC/EN 60947-4-1
Rated insulation voltage		690V AC
Rated frequency		50/60Hz
Rated impulse withstand voltage		6kV
Overvoltage category		III
Rated current AC1		20A
Rated making capacity		$10 \times I_g$ (AC3) / $12 \times I_g$ (AC4)
Rated breaking capacity		$8 \times I_g$ (AC3) / $10 \times I_g$ (AC4)
Short-time withstand current 10s		48A
Rated power AC3	230V	1,5kW
	400V	2,2kW
	415V	2,2kW
	690V	3kW
Mechanical lifetime		10.000.000 operations
Configuration of main contacts	3-pole	3NO
Protection degree		IP20
Ambient air temperature		- 5°C up to + 40°C
Storage temperature		-25°C up to + 55°C
Correction coefficient	40°C	1
	50°C	0,875
	60°C	0,75
	70°C	0,625
Altitude		2000m
Atmosphere conditions		50% humidity at +40°C
Installation position		plane and vertical +/- 22,5°
Coil voltage	Us	24VAC, 230VAC or 24VDC
Coil acting range	attraction	85% - 110% Us
	release	AC: 20%-70% Us DC: 10%-60% Us
Coil average power	start	40VA
	holding	7VA
Heat wastage		4W
Main contact action time	close	10 - 18 ms
	disconnection	4 - 16 ms
Terminal capacity of operation circuit		
	flexible cable with ferrule	
	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
	rigid cable	
	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
	Screw size	M3
	Torque	0,8 Nm
Terminal capacity of control circuit		
	flexible cable with ferrule	
	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
	rigid cable	
	single cable	1 - 2,5mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
	Screw size	M3
	Torque	0,8 Nm

## Auxiliary Contactors Series CUBICO Mini, 4-pole

### Connection Diagrams



DESCRIPTION	AVAILABLE	ORDER NO.
<b>6A</b>		
4 NO, 6A, 24VDC		<b>LZHM0675</b>
3NO, 1NC, 6A, 24VDC		<b>LZHM0685</b>
2NO, 2NC, 6A, 24VDC		<b>LZHM0695</b>
4 NO, 6A, 24VAC		<b>LZHM0670</b>
3NO, 1NC, 6A, 24VAC		<b>LZHM0680</b>
2NO, 2NC, 6A, 24VAC		<b>LZHM0690</b>
4 NO, 6A, 230VAC		<b>LZHM0673</b>
3NO, 1NC, 6A, 230VAC		<b>LZHM0683</b>
2NO, 2NC, 6A, 230VAC		<b>LZHM0693</b>

## ■ Contactors series CUBICO Classic, 3-pole



LZDC09B3

### ■ Schrack-Info

- Contactors from 4kW/9A up to 18,5kW/38A
- 3-pole with integrated auxiliary contact
- Available with 230VAC, 24VAC or 24VDC – coil
- Auxiliary contact NC or NO, depends of type
- Fitting surge suppressors are available
- Mountable to DIN-rail TS35 or mounting plate
- Further accessories find attached

# Contactors Series CUBICO Classic, 3-pole

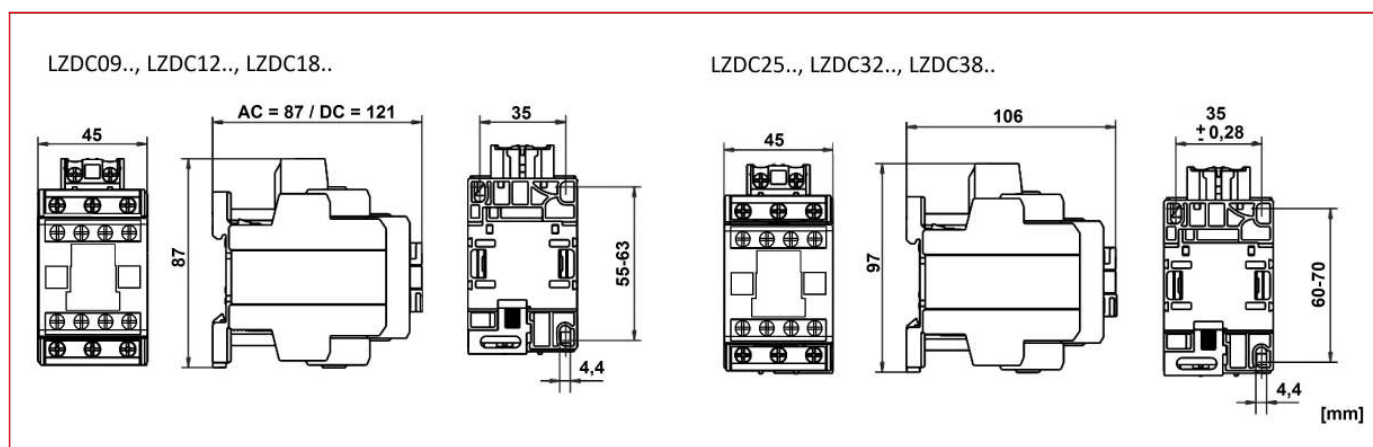
## Contactors series CUBICO Classic, 3-pole

		LZDC09Bx	LZDC12Bx	LZDC18Bx	LZDC25Bx	LZDC32Bx	LZDC38Bx
Standard		EN 60947-4-1, IEC 60947-4-1					
Rated insulation voltage		690V AC					
Rated frequency		50/60Hz					
Rated impulse withstand voltage		6kV					
Overvoltage category		III					
Rated current AC1		25A	25A	32A	40A	50A	50A
Rated current AC3	230V	9A	12A	18A	25A	32A	38A
	400V	9A	12A	18A	25A	32A	38A
	415V	9A	12A	18A	25A	32A	38A
	690V	6,7A	9A	10,6A	17,3A	21,9A	21,9A
Rated current AC4	230V	9A	12A	18A	25A	32A	38A
	400V	9A	12A	18A	25A	32A	32A
	415V	9A	12A	18A	25A	32A	32A
	690V	6,7A	9A	9A	17,3A	21,9A	21,9A
Rated making capacity		$10 \times I_e (AC3) / 12 \times I_e (AC4)$					
Rated breaking capacity		$8 \times I_e (AC3) / 10 \times I_e (AC4)$					
Short-time withstand current 10s		72A	96A	144A	200A	256A	304A
Rated power AC3	230V	2,2kW	4kW	4kW	5,5kW	7,5kW	9kW
	400V	4kW	5,5kW	7,5kW	11kW	15kW	18,5kW
	415V	4kW	5,5kW	9kW	11kW	15kW	18,5kW
	690V	5,5kW	7,5kW	9kW	15kW	18,5kW	18,5kW
Operating frequency	AC3	1.200 operations/h					
	AC4	300 operations/h					
Electrical lifetime		1.200.000 operations					
Mechanical lifetime		10.000.000 operations					
Configuration of main contacts		3-pole	3NO	3NO	3NO	3NO	3NO
Configuration of auxiliary contacts		1NO and 1NC	1NO and 1NC	1NO and 1NC	1NO and 1NC	1NO and 1NC	1NO and 1NC
Coil voltage		230VAC or 24VAC			230VAC or 24VAC		
Coil acting range	attraction	85% - 110% Us			85% - 110% Us		
	release	AC: 20%-70% Us			AC: 20%-70% Us		
Coil average power	start	70VA			70VA		
	holding	10VA			10VA		
Heat wastage		4W			4W		
Main contact action time	close	12 - 25 ms					
	disconnection	5 - 20 ms					
Protection degree		IP20					
Ambient air temperature		- 5C up to + 40°C					
Storage temperature		- 25C up to + 55°C					
Correction coefficient	40°C	1					
	50°C	0,875					
	60°C	0,75					
	70°C	0,625					
Altitude		2000m					
Atmosphere conditions		50% humidity at +40°C					
Installation position		plane and vertical +/- 22,5°					

**Contactors series CUBICO Classic, 3-pole**

	LZDC09Bx	LZDC12Bx	LZDC18Bx	LZDC25Bx	LZDC32Bx	LZDC38Bx
Terminal capacity of main circuit	flexible cable with ferrule					
	single cable	1 - 4mm <sup>2</sup>	1,5 - 6mm <sup>2</sup>		2,5 - 10mm <sup>2</sup>	
	dual cable	1 - 2,5mm <sup>2</sup>	1 - 4mm <sup>2</sup>		2,5 - 6mm <sup>2</sup>	
	rigid cable					
	single cable	1 - 4mm <sup>2</sup>	1,5 - 6mm <sup>2</sup>		2,5 - 10mm <sup>2</sup>	
	dual cable	1 - 4mm <sup>2</sup>	1,5 - 6mm <sup>2</sup>		2,5 - 10mm <sup>2</sup>	
	Screw siz	M3,5	M3,5		M4	
Torque	1,2Nm	1,2Nm		2Nm		
Terminal capacity of control circuit	flexible cable with ferrule					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	dual cable	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>		1 - 2,5mm <sup>2</sup>	
	rigid cable					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	dual cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	Screw size	M3,5	M3,5		M3,5	
Torque	1,2Nm	1,2Nm		1,2Nm		
Terminal capacity of auxiliary contacts	flexible cable with ferrule					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	dual cable	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>		1 - 2,5mm <sup>2</sup>	
	rigid cable					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	dual cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>		1 - 4mm <sup>2</sup>	
	Screw size	M3,5	M3,5		M3,5	
Torque	1,2Nm	1,2Nm		1,2Nm		

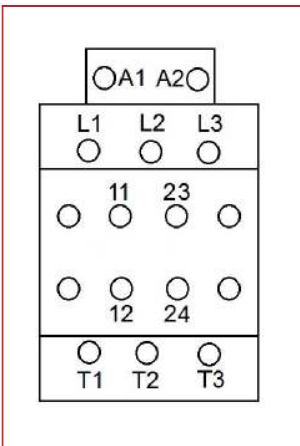
**Dimensions**



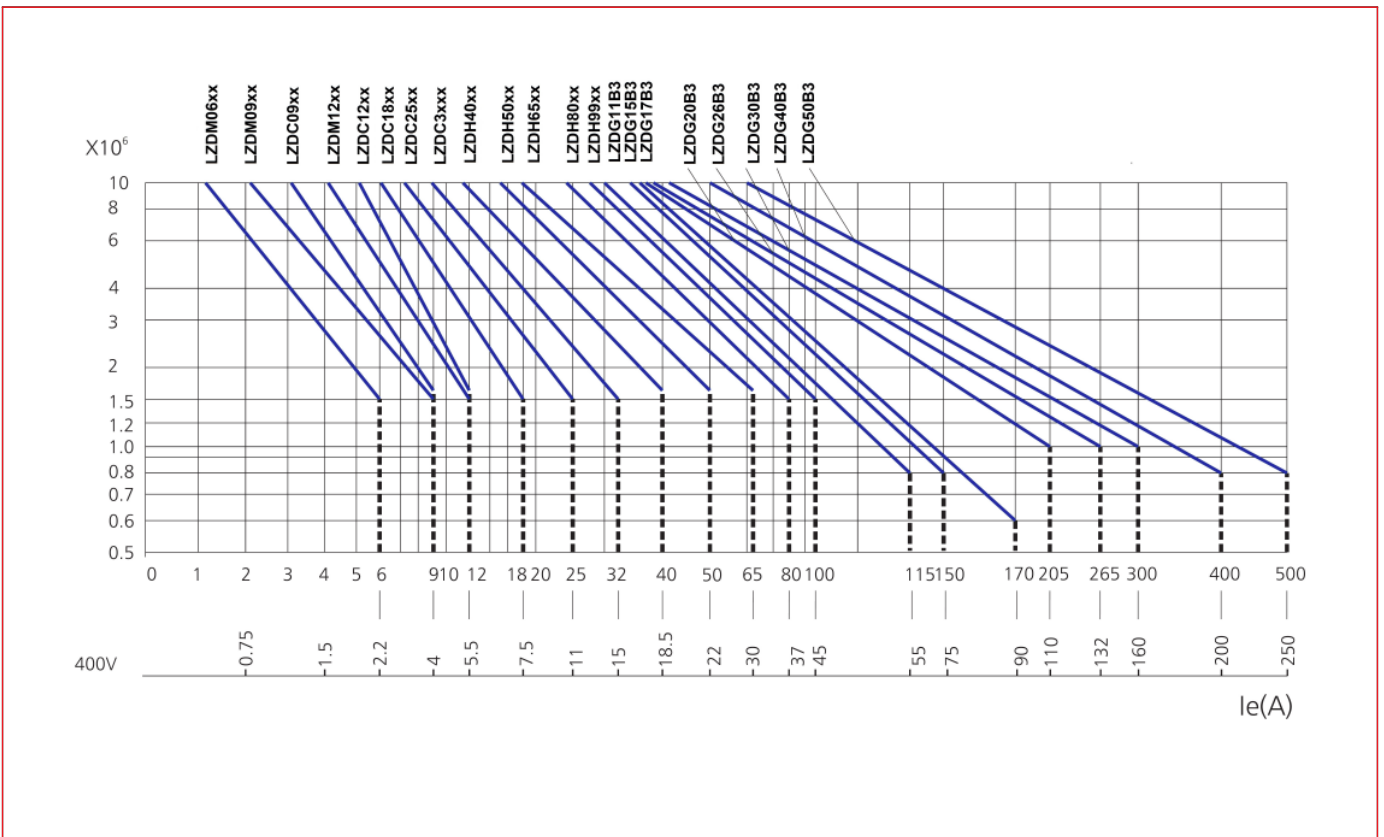
# Contactors Series CUBICO Classic, 3-pole

## Contactors series CUBICO Classic, 3-pole

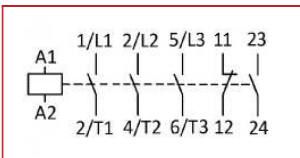
### Connection Diagram



### Electric life curves (AC3 Ue=400V)



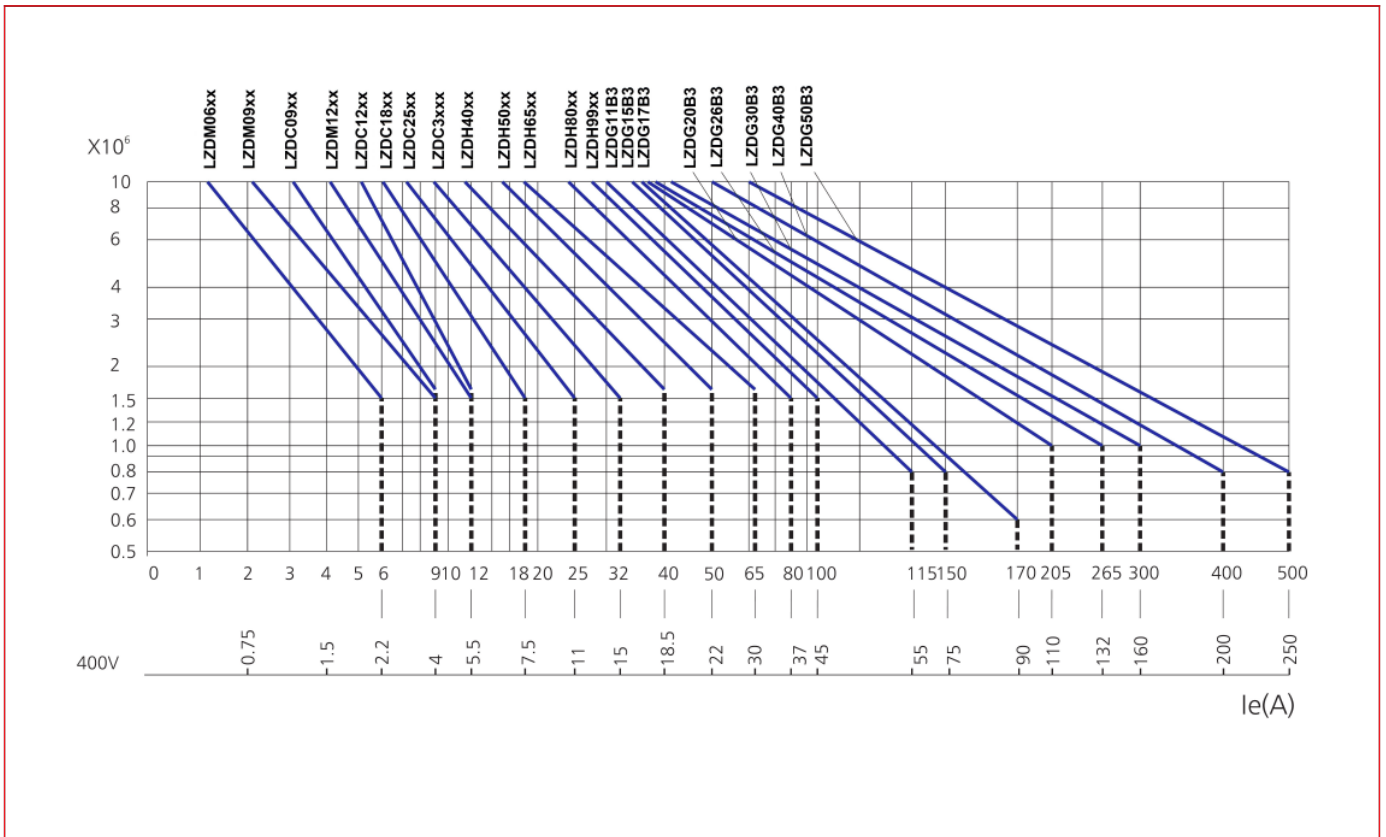
### Circuit Diagram





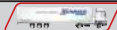


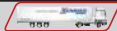




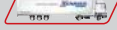






■ Contactors series CUBICO Classic, 3-pole

■ Electric life curves (AC-2, AC-4 U<sub>e</sub>=400V)



# Contactors Series CUBICO Classic, 3-pole

## Contactors series CUBICO Classic, 3-pole

DESCRIPTION	AVAILABLE	ORDER NO.
<b>4kW / 9A</b>		
3-pole, 4kW, 9A, 1NO+1NC, 230VAC		<a href="#">LZDC09B3</a>
3-pole, 4kW, 9A, 1NO+1NC, 24VAC		<a href="#">LZDC09B0</a>
3-pole, 4kW, 9A, 1NO+1NC, 24VDC		<a href="#">LZDC09B5</a>
<b>5,5kW / 12A</b>		
3-pole, 5,5kW, 12A, 1NO+1NC, 230VAC		<a href="#">LZDC12B3</a>
3-pole, 5,5kW, 12A, 1NO+1NC, 24VAC		<a href="#">LZDC12B0</a>
3-pole, 5,5kW, 12A, 1NO+1NC, 24VDC		<a href="#">LZDC12B5</a>
<b>7,5kW / 18A</b>		
3-pole, 7,5kW, 18A, 1NO+1NC, 230VAC		<a href="#">LZDC18B3</a>
3-pole, 7,5kW, 18A, 1NO+1NC, 24VAC		<a href="#">LZDC18B0</a>
3-pole, 7,5kW, 18A, 1NO+1NC, 24VDC		<a href="#">LZDC18B5</a>
<b>11kW / 25A</b>		
3-pole, 11kW, 25A, 1NO+1NC, 230VAC		<a href="#">LZDC25B3</a>
3-pole, 11kW, 25A, 1NO+1NC, 24VAC		<a href="#">LZDC25B0</a>
<b>15kW / 32A</b>		
3-pole, 15kW, 32A, 1NO+1NC, 230VAC		<a href="#">LZDC32B3</a>
3-pole, 15kW, 32A, 1NO+1NC, 24VAC		<a href="#">LZDC32B0</a>
<b>18,5kW / 38A</b>		
3-pole, 18,5kW, 38A, 1NO+1NC, 230VAC		<a href="#">LZDC38B3</a>
3-pole, 18,5kW, 38A, 1NO+1NC, 24VAC		<a href="#">LZDC38B0</a>

## Accessories Series CUBICO Classic



LZZCH031

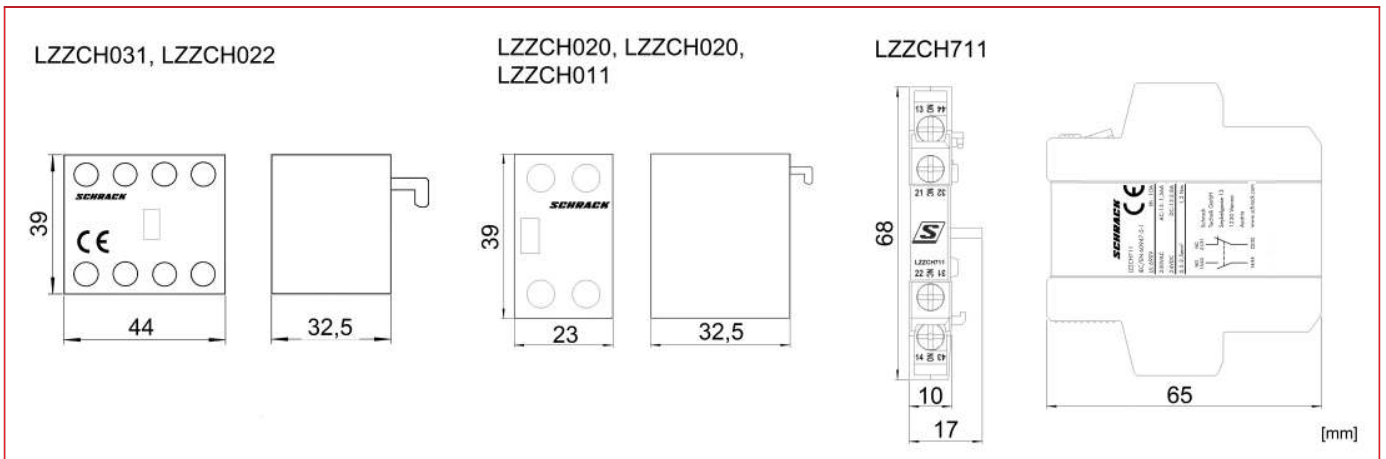


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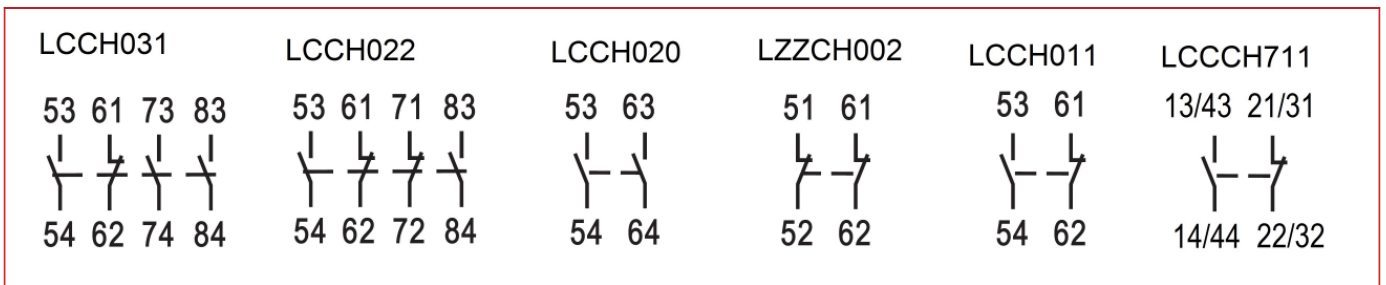
### Schrack-Info

- Auxiliary contacts for front or side-mounting for contactors series CUBICO Classic
- Mechanical interlock for two contactors series Classic
- Protective modules for 24V and 230V coil of the contactors

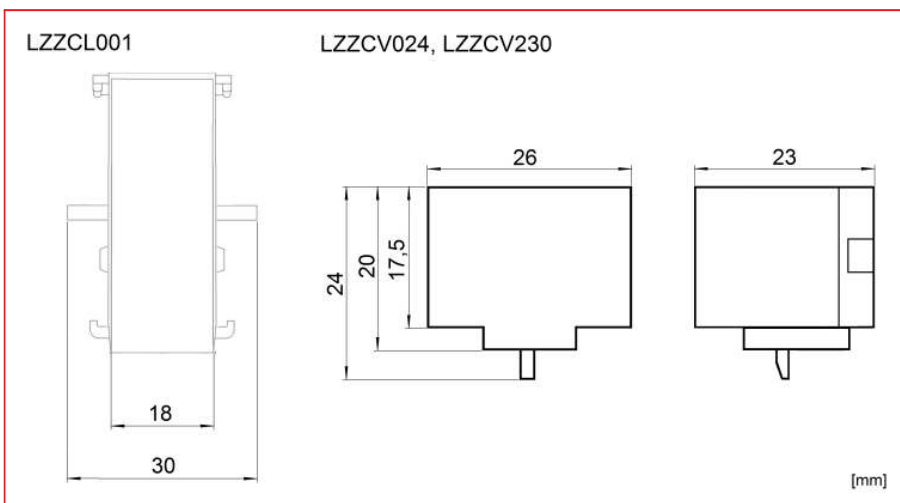
### Dimensions



### Circuit Diagrams



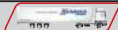


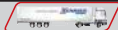



### Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
<b>Auxiliary Contact Block</b>		
Auxiliary contact front-type for CUBICO Classic and High, 3NO+1NC		<b>LZZCH031</b>
Auxiliary contact front-type for CUBICO Classic and High, 2NO+2NC		<b>LZZCH022</b>

# Contactors Series CUBICO Classic, 3-pole

## Accessories Series CUBICO Classic

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Auxiliary Contact Block</b>		
Auxiliary contact front-type for CUBICO Classic and High, 2NO		<b>LZZCH020</b>
Auxiliary contact front-type for CUBICO Classic and High, 2NC		<b>LZZCH002</b>
Auxiliary contact front-type for CUBICO Classic and High, 1NO+1NC		<b>LZZCH011</b>
<b>Auxiliary Contact Block - Side</b>		
Auxiliary contact side-type for CUBICO Classic and High, 1NO+1NC		<b>LZZCH711</b>
<b>Mechanical Interlock</b>		
Mechanical interlock for CUBICO Classic		<b>LZZCL001</b>
<b>Surge Suppressors</b>		
Varistor Classic 24 - 48 V AC/DC		<b>LZZCV024</b>
Varistor Classic 110 - 250 V AC		<b>LZZCV230</b>

## ■ Contactors Series CUBICO Grand, 3-pole

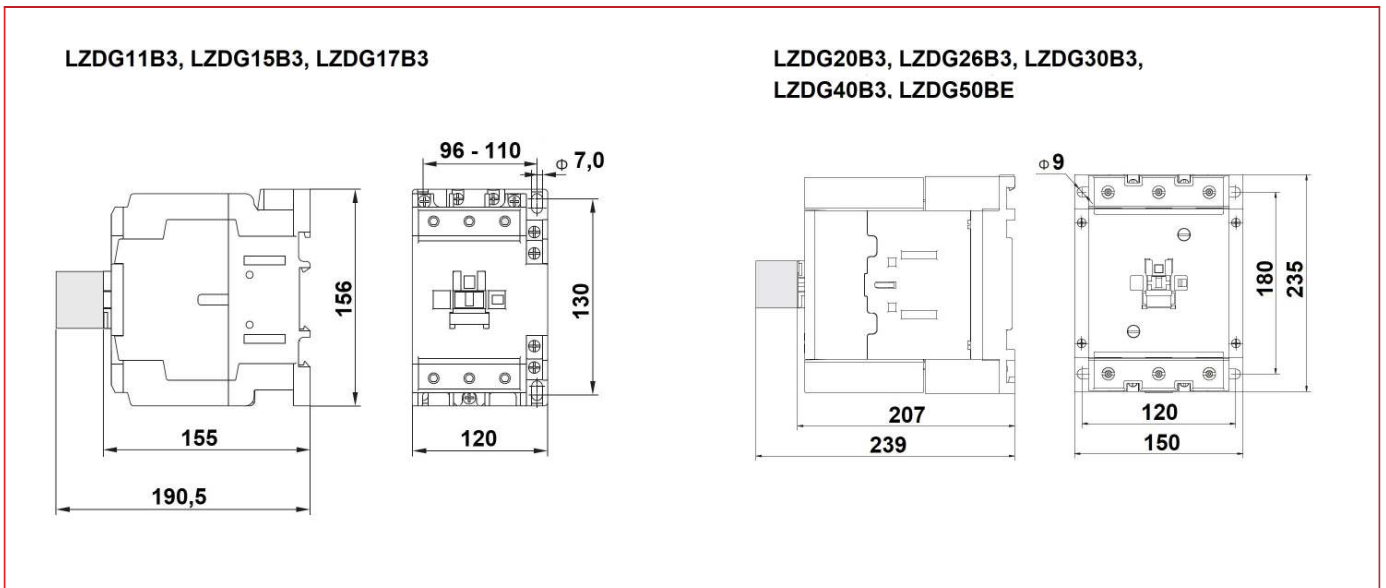


LZDG17B3

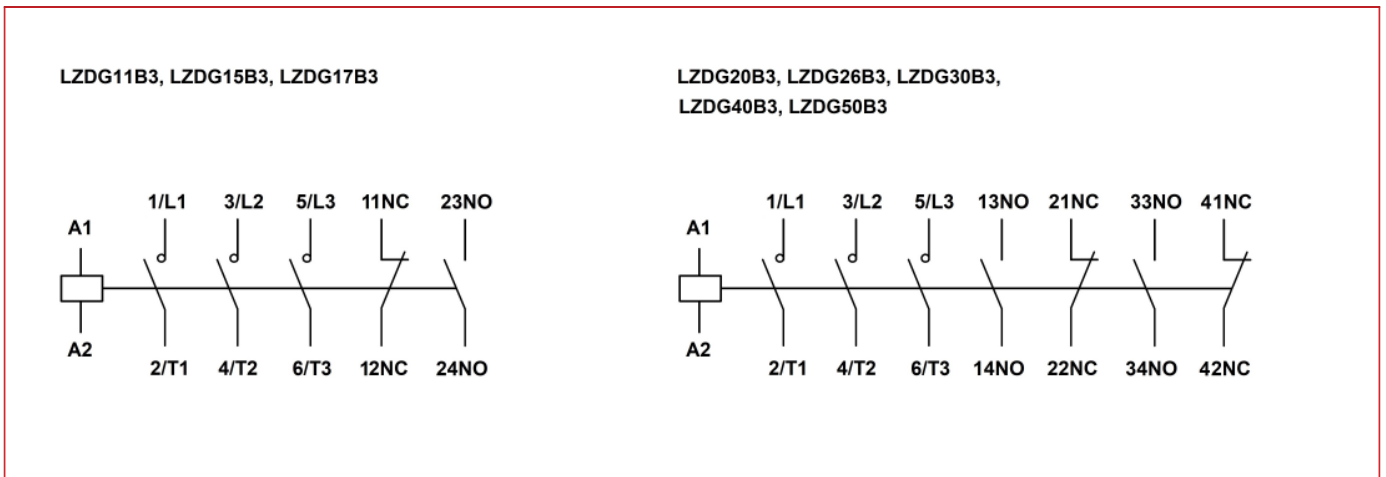
### ■ Schrack-Info

- Contactors from 55kW/115A up to 250kW/500A
- 3-pole with integrated auxiliary contact
- Available with 230VAC – coil
- Auxiliary contact NC and NO, depends of type
- Mountable to mounting plate

### ■ Dimensions



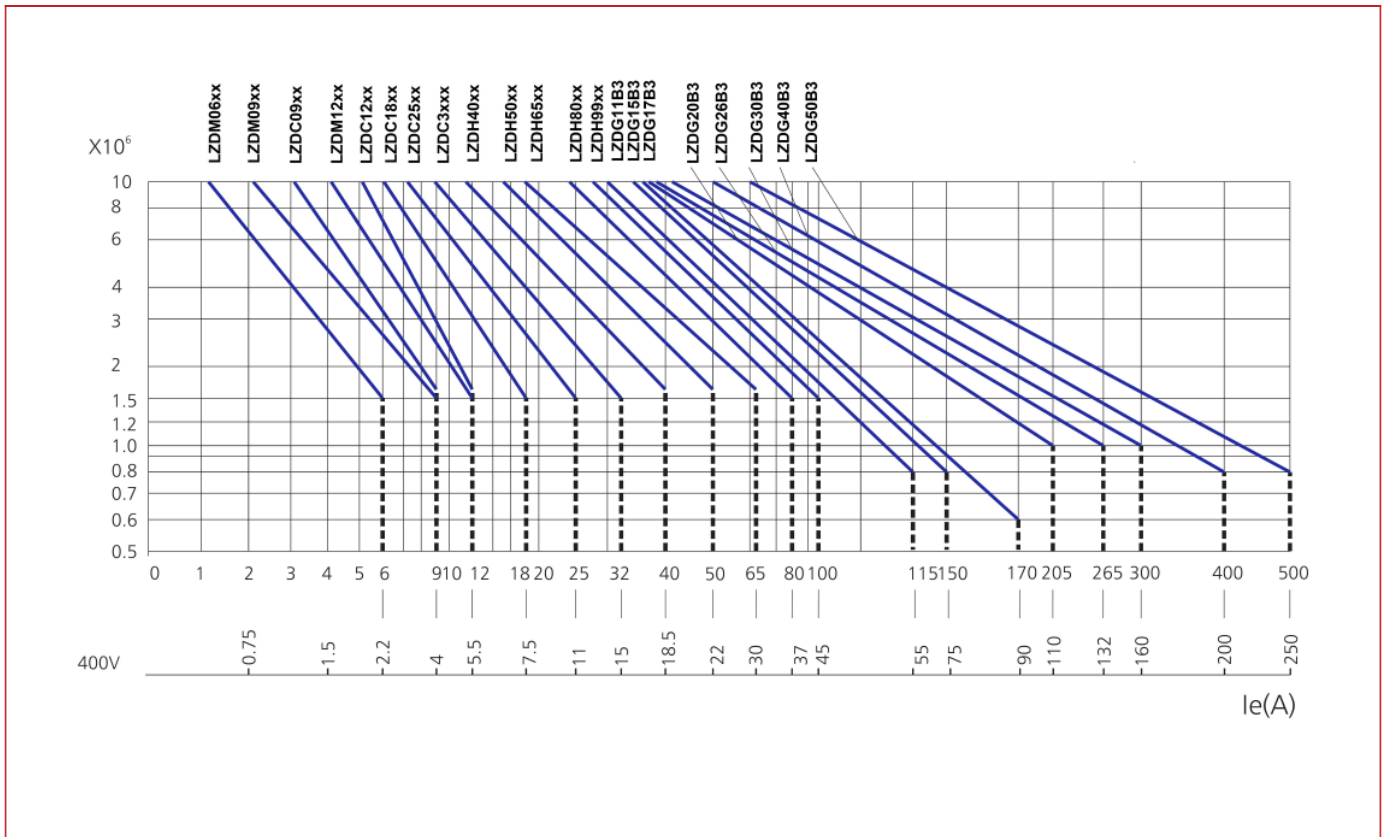
### ■ Circuit Diagrams



# Contactors Series CUBICO Grand, 3-pole

## Contactors Series CUBICO Grand, 3-pole

### Electric life curves (AC3 U<sub>e</sub>=400V)





 Contactors Series CUBICO Grand, 3-pole

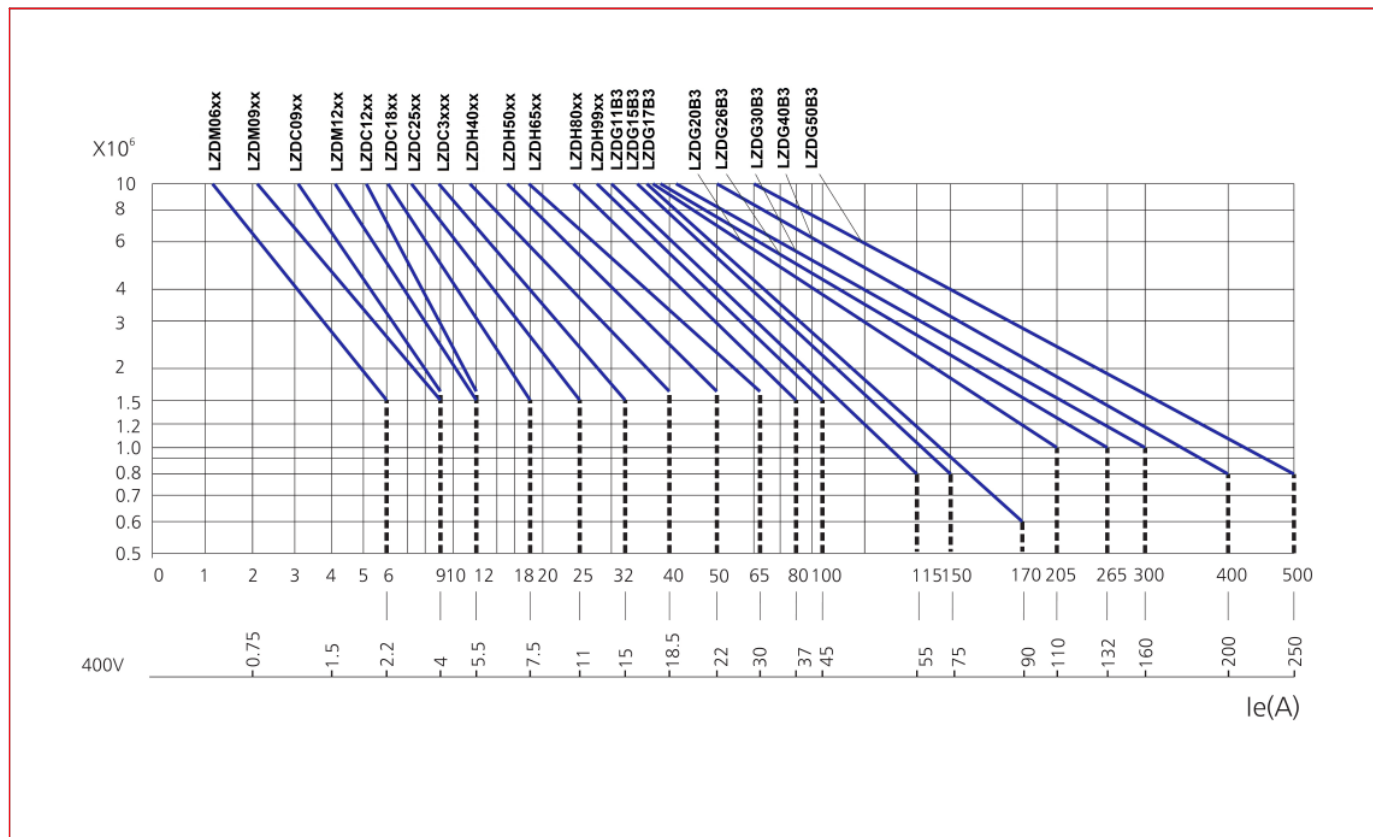
	LZDG11B3	LZDG15B3	LZDG17B3	LZDG20B3	LZDG26B3	LZDG30B3	LZDG40B3	LZDG50B3	
Standards	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	EN 60947-4-1	
	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	IEC 60947-4-1	
Breaking capacity	220 V / 230 V	920 A	1200 A	1360 A	1640 A	2120 A	2400 A	3200 A	4000 A
	380 V / 400 V	920 A	1200 A	1360 A	1640 A	2120 A	2400 A	3200 A	4000 A
	660 V / 690 V	688 A	856 A	944 A	1096 A	1480 A	1880 A	2424 A	2832 A
Type "2" coordination	400 V [gG/gL 500 V]	224 A	224 A	315 A	315 A	400 A	425 A	500 A	800 A
Conventional free air thermal current, 1 pole	Open [I <sub>n</sub> ]	200 A	200 A	275 A	300 A	330 A	380 A	450 A	630 A
Rated insulation voltage [U <sub>i</sub> ]		690 V-AC	690 V-AC	690 V-AC	690 V-AC	690 V-AC	690 V-AC	690 V-AC	690 V-AC
Rated operational voltage [U <sub>e</sub> ]		230 V-AC	230 V-AC	230 V-AC	230 V-AC	230 V-AC	230 V-AC	230 V-AC	230 V-AC
Rated impulse withstand voltage [U <sub>imp</sub> ]		8	8	8	8	8	8	8	8
Overvoltage category/pollution degree		III	III	III	III	III	III	III	III
AC-3									
Rated operational current									
Open, 3-pole: 50 – 60 Hz	220 V / 230 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	240 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	380 V / 400 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	415 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	660 V / 690 V [I <sub>e</sub> ]	86 A	107 A	118 A	137 A	185 A	235 A	303 A	354 A
Motor rating	220 V / 230 V [P]	37 kW	45 kW	55 kW	63 kW	75 kW	90 kW	132 kW	160 kW
	240 V [P]	37 kW	45 kW	55 kW	63 kW	75 kW	90 kW	132 kW	160 kW
	380 V / 400 V [P]	55 kW	75 kW	90 kW	110 kW	132 kW	160 kW	200 kW	250 kW
	415 V [P]	59 kW	80 kW	100 kW	110 kW	140 kW	160 kW	220 kW	280 kW
	660 V / 690 V [P]	80 kW	100 kW	110 kW	132 kW	160 kW	200 kW	300 kW	355 kW
AC-4									
Rated operational current									
Open, 3-pole, 50 – 60 Hz	220 V / 230 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	240 V [I <sub>e</sub> ]	115 A	150 A	170 A	205 A	265 A	300 A	400 A	500 A
	380 V / 400 V [I <sub>e</sub> ]	115 A	150 A	150 A	205 A	265 A	300 A	400 A	500 A
	415 V [I <sub>e</sub> ]	115 A	150 A	150 A	205 A	265 A	300 A	400 A	500 A
	660 V / 690 V [I <sub>e</sub> ]	86 A	107 A	107 A	137 A	185 A	235 A	303 A	354 A
Power consumption of the coil in a cold state and 1.0 x U <sub>s</sub>	AC operated [Pick-up]	29 W	35 W	48 W	65 W	67 W	80 W	125 W	184 W
	AC operated [Sealing]	29 W	35 W	48 W	65 W	67 W	80 W	125 W	184 W
Lifespan, mechanical		6000000	6000000	6000000	6000000	6000000	6000000	6000000	6000000
Ambient temperature	Open	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C
	Enclosed	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C
	Storage	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C	-25°C / +55°C
Terminal capacity main cable	Solid	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	50 - 240 mm <sup>2</sup> 2 x 50 - 240 mm <sup>2</sup>	50 - 240 mm <sup>2</sup> 2 x 50 - 240 mm <sup>2</sup>	50 - 240 mm <sup>2</sup> 2 x 50 - 240 mm <sup>2</sup>	50 - 240 mm <sup>2</sup> 2 x 50 - 240 mm <sup>2</sup>	50 - 240 mm <sup>2</sup> 2 x 50 - 240 mm <sup>2</sup>
	Flexible with ferrule	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	-	-	-	-	-

# Contactors Series CUBICO Grand, 3-pole

## Contactors Series CUBICO Grand, 3-pole

	Stranded	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	10 - 95 mm <sup>2</sup> 2 x 10 - 50 mm <sup>2</sup>	-	-	-	-	-
	Terminal screw	M10	M10	M10	M10	M10	M10	M10	M10
	Standard screwdriver	PH 6 mm	PH 6 mm	PH 6 mm					
	Allen wrench	4 mm	4 mm	4 mm					
	Tightening torque	10 Nm	10 Nm	10 Nm	14 Nm	14 Nm	14 Nm	14 Nm	14 Nm
Terminal capacity control circuit cables	Solid	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>
	Flexible with ferrule	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>
	Philips / Pozidriv screwdriver	PH2	PH2	PH2	PH2	PH2	PH2	PH2	PH2
	Standard screwdriver	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm
	Tightening torque	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm
Terminal capacity auxiliary contacts	Solid	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>
	Flexible with ferrule	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>	1 -4 mm <sup>2</sup> 2 x 1 - 4 mm <sup>2</sup>
	Philips / Pozidriv screwdriver	PH2	PH2	PH2	PH2	PH2	PH2	PH2	PH2
	Standard screwdriver	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm
	Tightening torque	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm	1,2 Nm

## Electric life curves (AC-2, AC-4 U<sub>e</sub>=400V)

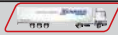

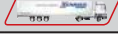






DESCRIPTION	AVAILABLE	ORDER NO.
<b>55kW / 115A</b>		
3-pole, 55kW, 115A, 1NO+1NC, 230VAC		



**LZDG11B3**

## Contactors Series CUBICO Grand, 3-pole

DESCRIPTION	AVAILABLE	ORDER NO.
<b>75kW / 150A</b>		<b>LZDG15B3</b>
3-pole, 75kW, 150A, 1NO+1NC, 230VAC		
<b>90kW / 170A</b>		<b>LZDG17B3</b>
3-pole, 90kW, 170A, 1NO+1NC, 230VAC		
<b>110kW / 205A</b>		<b>LZDG20B3</b>
3-pole, 110W, 205A, 2NO+2NC, 230VAC		
<b>132kW / 265A</b>		<b>LZDG26B3</b>
3-pole, 132W, 265A, 2NO+2NC, 230VAC		
<b>160kW / 300A</b>		<b>LZDG30B3</b>
3-pole, 160W, 300A, 2NO+2NC, 230VAC		
<b>200kW / 400A</b>		<b>LZDG40B3</b>
3-pole, 200W, 400A, 2NO+2NC, 230VAC		
<b>250kW / 500A</b>		<b>LZDG50B3</b>
3-pole, 250W, 500A, 2NO+2NC, 230VAC		

# Contactors Series CUBICO Grand, 3-pole

## Accessories Series CUBICO Grand

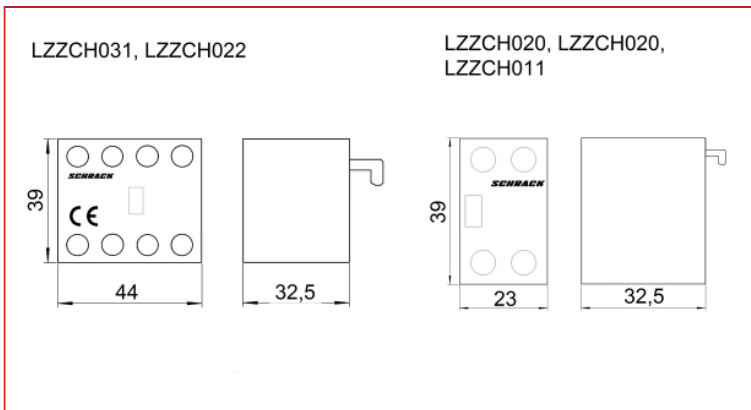


LZZCH031

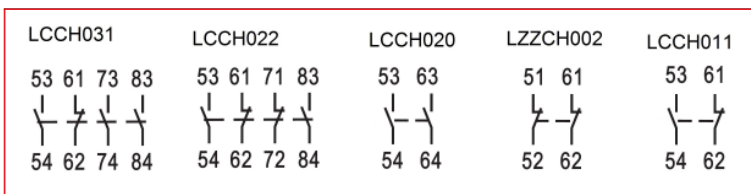
### Schrack-Info

- Auxiliary contacts for front or side-mounting for contactors series CUBICO Grand
- Mechanical interlock for two contactors series CUBICO Grand

### Dimensions



### Circuit Diagrams



DESCRIPTION	AVAILABLE	ORDER NO.
<b>Auxiliary Contact Block</b>		
Auxiliary contact front-type for CUBICO Classic and High, 2NC		<a href="#">LZZCH002</a>
Auxiliary contact front-type for CUBICO Classic and High, 1NO+1NC		<a href="#">LZZCH011</a>
Auxiliary contact front-type for CUBICO Classic and High, 2NO		<a href="#">LZZCH020</a>
Auxiliary contact front-type for CUBICO Classic and High, 2NO+2NC		<a href="#">LZZCH022</a>
Auxiliary contact front-type for CUBICO Classic and High, 3NO+1NC		<a href="#">LZZCH031</a>
<b>Auxiliary Contact Block - Side</b>		
Auxiliary contact side-type for CUBICO Grand, 1NO+1NC		<a href="#">LZZGH711</a>
<b>Mechanical Interlock</b>		
Mechanical interlock for CUBICO Grand, type for 115 A to 170 A (LZDG10B3, LZDG15B3 und LZDG17B3)		<a href="#">LZZGL001</a>
Mechanical interlock for CUBICO Grand, type for 115 A to 170 A (LZDG20B3, LZDG30B3, LZDG40B3 and LZDG50B3)		<a href="#">LZZGL002</a>

## ■ Contactors Series CUBICO High, 3-pole



LZDH40B3



LZDH80B3

## ■ Schrack-Info

- Contactors from 18,5kW/40A up to 45kW/100A
- 3-pole with integrated auxiliary contact
- Available with 230VAC or 24VAC – coil
- Auxiliary contact NC or NO, depends of type
- Mountable to DIN-rail TS35 or mounting plate

# Contactors Series CUBICO High, 3-pole

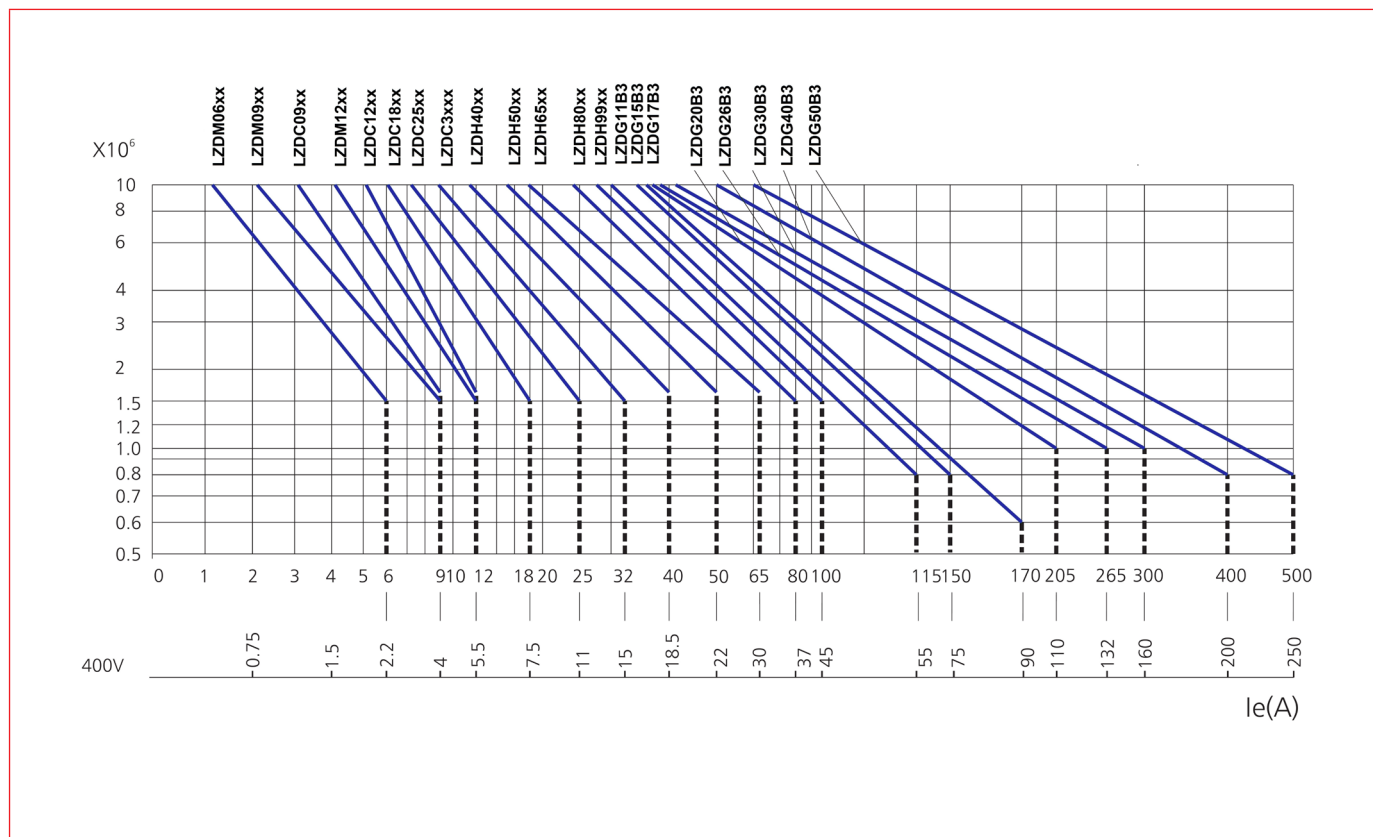
## Contactors Series CUBICO High, 3-pole

Type		LZDH40...	LZDH50...	LZDH65...	LZDH80...	LZDH99...
Standard		IEC/EN 60947-4-1				
Rated insulation voltage		690V AC				
Rated frequency		50/60Hz				
Rated impulse withstand voltage		8kV				
Overvoltage category		III				
Rated current AC1		60A	80A	80A	125A	125A
Rated current AC3	230V	40A	50A	65A	80A	100A
	400V	40A	50A	65A	80A	100A
	415V	40A	50A	65A	80A	100A
	690V	34A	39A	42A	49A	49A
Rated current AC4	230V	40A	50A	65A	80A	100A
	400V	40A	50A	65A	80A	100A
	415V	40A	50A	65A	80A	100A
	690V	34A	39A	42A	49A	49A
Rated making capacity		10 x I <sub>e</sub> (AC3) / 12 x I <sub>e</sub> (AC4)				
Rated breaking capacity		8 x I <sub>e</sub> (AC3) / 10 x I <sub>e</sub> (AC4)				
Short-time withstand current 10s		320A	400A	520A	640A	800A
Rated power AC3	230V	11kW	15kW	18,5kW	22kW	25kW
	400V	18,5kW	22kW	30kW	37kW	45kW
	415V	22kW	25kW	37kW	45kW	45kW
	690V	30kW	33kW	37kW	45kW	45kW
Operating frequency	AC3	1.200 operations/h				
	AC4	120 operations/h				
Electrical lifetime		1.200.000 operations				
Mechanical lifetime		10.000.000 operations				
Configuration of main contacts	3-pole	3NO	3NO	3NO	3NO	3NO
Configuration of auxiliary contacts		1NO and 1NC	1NO and 1NC	1NO and 1NC	1NO and 1NC	1NO and 1NC
Protection degree		IP20				
Ambient air temperature		- 5C up to + 40°C				
Storage temperature		- 25C up to + 55°C				
Correction coefficient	40°C	1				
	50°C	0,875				
	60°C	0,75				
	70°C	0,625				
Altitude		2000m				
Atmosphere conditions		50% humidity at +40°C				
Installation position		plane and vertical +/- 22,5°				
Coil voltage		230VAC or 24VAC				
Coil acting range	attraction	85% - 110% U <sub>s</sub>				
	release	AC: 20%-70% U <sub>s</sub>				
Coil average power	start	210VA	210VA	210VA	250VA	250VA
	holding	25VA	25VA	25VA	30VA	30VA
Heat wastage		7W	7W	7W	8W	8W
Main contact action time	close	25ms	25ms	25ms	30ms	30ms
	disconnection	15ms	15ms	15ms	17ms	17ms
Terminal capacity of main circuit	flexible cable with ferrule					
	single cable	10 - 25mm <sup>2</sup>	10 - 25mm <sup>2</sup>	10 - 25mm <sup>2</sup>	16 - 50mm <sup>2</sup>	16 - 50mm <sup>2</sup>
	dual cable	4 - 16mm <sup>2</sup>	4 - 16mm <sup>2</sup>	4 - 16mm <sup>2</sup>	10 - 35mm <sup>2</sup>	10 - 35mm <sup>2</sup>
	Screw size	M8	M8	M8	M8	M8
	Torque	6Nm	6Nm	6Nm	6Nm	6Nm
	flexible cable with ferrule					
Terminal capacity of control circuit	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>
	rigid cable					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	dual cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	Screw size	M3,5	M3,5	M3,5	M3,5	M3,5
Torque	1,2Nm	1,2Nm	1,2Nm	1,2Nm	1,2Nm	
Terminal capacity of auxiliary contacts	flexible cable with ferrule					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>	1 - 2,5mm <sup>2</sup>
	rigid cable					
	single cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	dual cable	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>	1 - 4mm <sup>2</sup>
	Screw size	M3,5	M3,5	M3,5	M3,5	M3,5
	Torque	1,2Nm	1,2Nm	1,2Nm	1,2Nm	1,2Nm

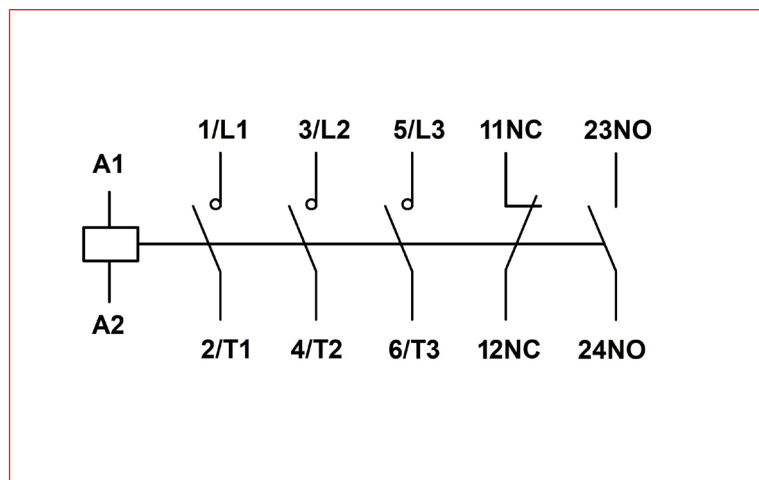


■ Contactors Series CUBICO High, 3-pole

■ Electric life curves (AC3 U<sub>e</sub>=400V)



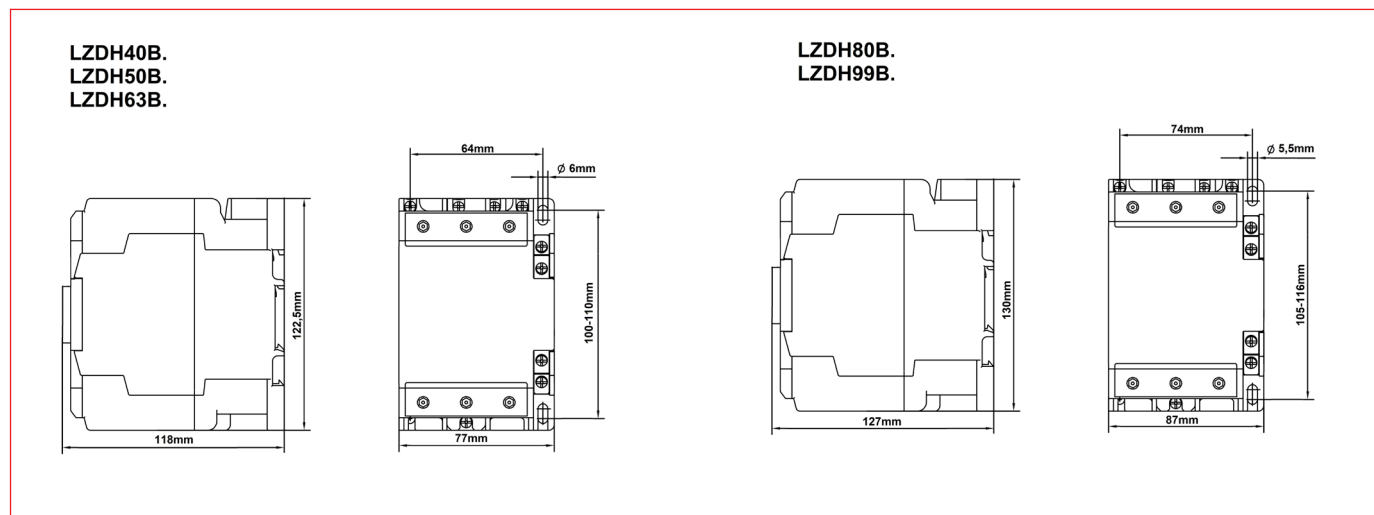
■ Circuit Diagram



# Contactors Series CUBICO High, 3-pole

## Contactors Series CUBICO High, 3-pole

### Dimensions



DESCRIPTION	AVAILABLE	ORDER NO.
<b>18,5kW / 40A</b>		
3-pole, 18,5kW, 40A, 1S+1Ö, 230VAC		LZDH40B3
3-pole, 18,5kW, 40A, 1S+1Ö, 24VAC		LZDH40B0
<b>22kW / 50A</b>		
3-pole, 22kW, 50A, 1S+1Ö, 230VAC		LZDH50B3
3-pole, 22kW, 50A, 1S+1Ö, 24VAC		LZDH50B0
<b>30kW / 65A</b>		
3-pole, 30kW, 65A, 1S+1Ö, 230VAC		LZDH65B3
3-pole, 30kW, 65A, 1S+1Ö, 24VAC		LZDH65B0
<b>37kW / 80A</b>		
3-pole, 37kW, 80A, 1S+1Ö, 230VAC		LZDH80B3
3-pole, 37kW, 80A, 1S+1Ö, 24VAC		LZDH80B0
<b>45kW / 100A</b>		
3-pole, 40kW, 100A, 1S+1Ö, 230VAC		LZDH99B3
3-pole, 40kW, 100A, 1S+1Ö, 24VAC		LZDH99B0

## Accessories Series CUBICO High



LZZCH031

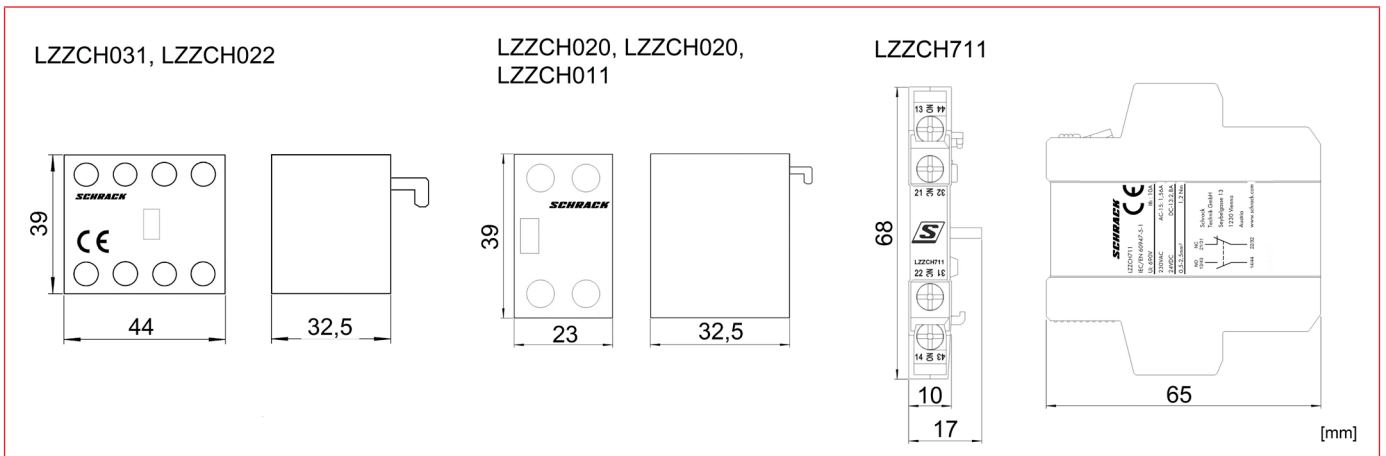
### Schrack-Info

- Auxiliary contacts for front or side-mounting for contactors series CUBICO High
- Mechanical interlock for two contactors series CUBICO High
- Protective modules for 24V and 230V coil of the contactors

### Circuit Diagrams

LCCH031	LCCH022	LCCH020	LZZCH002	LCCH011	LCCCH711
53 61 73 83	53 61 71 83	53 63	51 61	53 61	13/43 21/31
54 62 74 84	54 62 72 84	54 64	52 62	54 62	14/44 22/32

### Dimensions



# Contactors Series CUBICO High, 3-pole

## Accessories Series CUBICO High

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Auxiliary Contact Block</b>		
Auxiliary contact front-type for CUBICO Classic and High, 3NO+1NC		LZZCH031
Auxiliary contact front-type for CUBICO Classic and High, 2NO+2NC		LZZCH022
Auxiliary contact front-type for CUBICO Classic and High, 2NO		LZZCH020
Auxiliary contact front-type for CUBICO Classic and High, 2NC		LZZCH002
Auxiliary contact front-type for CUBICO Classic and High, 1NO+1NC		LZZCH011
<b>Auxiliary Contact Block - Side</b>		
Auxiliary contact side-type for CUBICO Classic and High, 1NO+1NC		LZZCH711
<b>Mechanical Interlock</b>		
Mechanische Verriegelung für CUBICO High		LZZHL001
<b>Surge Suppressors</b>		
Varistor High 24 - 48 V AC/DC		LZZHV024
Varistor Maxi 110 - 250 V AC		LZZHV230

## Thermal Overload Relays Series CUBICO Mini



LZTM0016

### Schrack-Info

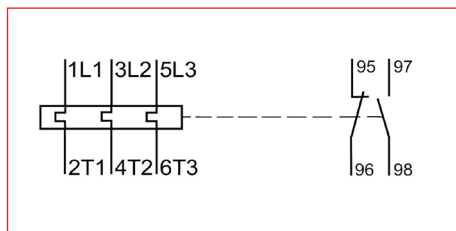
- Matching on contactor series CUBICO Mini
- Plug-in type
- Included auxiliary contacts
- Phase failure protection
- Manual and automatic reset
- Temperature compensation
- Tripping indicator
- Test- and Stop-button

# Thermal Overload Relays Series CUBICO

## Thermal Overload Relays Series CUBICO Mini

Type		0,4 - 0,63A	0,63 - 1A	1 - 1,6A	1,6 - 2,5A	2,5 - 4A	4 - 6,3A	6 - 10A	9 - 14A	13 - 18A	17 - 23A	20 - 25A	
Standard		IEC/EN 60947-2, IEC/EN 60947-4-1											
Rated operational voltage $U_e$		230/230V AC, 400/415V AC, 440V AC, 500V AC, 690V AC											
Rated insulation voltage $U_i$		690V AC											
Rated frequency		50Hz											
Rated impulse withstand voltage $U_{imp}$		8kV											
Overvoltage category		III											
Arcing distance		40mm											
Range of current		0,4 - 0,63 A	0,63 - 1 A	1 - 1,6 A	1,6 - 2,5 A	2,5 - 4 A	4 - 6,3 A	6 - 10 A	9 - 14 A	13 - 18 A	17 - 23 A	20 - 25 A	
Rated current		0,63 A	1 A	1,6 A	2,5 A	4 A	6,3 A	10 A	14 A	18 A	23 A	25 A	
Standard rated power of three phase motor	230/230V AC	-	-	-	0,37 kW	0,75 kW	1,1 kW	2,2 kW	3,0 kW	4,0 kW	5,5 kW	5,5 kW	
	400/415V AC	-	-	0,37 kW	0,75 kW	1,5 kW	2,2 kW	4,0 kW	5,5 kW	9,0 kW	11 kW	11 kW	
	440V AC	-	0,37 kW	0,55 kW	1,1 kW	1,5 kW	3,0 kW	4,0 kW	7,5 kW	9,0 kW	11 kW	11 kW	
	500V AC	-	0,37 kW	0,75 kW	1,1 kW	2,2 kW	3,7 kW	5,5 kW	7,5 kW	9,0 kW	11 kW	15 kW	
	690V AC	0,37 kW	0,55 kW	1,1 kW	1,5 kW	3,0 kW	4,0 kW	7,5 kW	9,0 kW	11 kW	15 kW	18,5 kW	
Rated ultimate short-circuit breaking capacity $I_{cu}$	230/230V AC	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	50 kA	
	400/415V AC	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	15 kA	15 kA	15 kA	15 kA	
	440V AC	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	15 kA	8 kA	8 kA	6 kA	6 kA	
	500V AC	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	10 kA	6 kA	6 kA	4 kA	4 kA	
	690V AC	100 kA	100 kA	100 kA	3 kA	3 kA	3 kA	3 kA	3 kA	3 kA	3 kA	3 kA	
Rated ultimate short-circuit breaking capacity $I_{cs}$	230/230V AC	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	50 kA	
	400/415V AC	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	7,5 kA	7,5 kA	6 kA	6 kA	
	440V AC	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	15 kA	4 kA	4 kA	3 kA	3 kA	
	500V AC	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA	10 kA	4,5 kA	4,5 kA	3 kA	3 kA	
	690V AC	100 kA	100 kA	100 kA	2,25 kA	2,25 kA	2,25 kA	2,25 kA	2,25 kA	2,25 kA	2,25 kA	2,25 kA	
Current setting value of instantaneous electromagnetic release $I_r$		8 A	13 A	22,5 A	33,5 A	51 A	78 A	138 A	170 A	223 A	327 A	327 A	
Current rating of back-up fuse if $I_{cc} > I_{cu}$	230/230V AC	aM	-	-	-	-	-	-	-	-	80 A	80 A	
		gG/gL	-	-	-	-	-	-	-	-	100 A	100 A	
	400/415V AC	aM	-	-	-	-	-	-	-	63 A	63 A	80 A	80 A
		gG/gL	-	-	-	-	-	-	-	80 A	80 A	100 A	100 A
	440V AC	aM	-	-	-	-	-	50 A	50 A	50 A	50 A	63 A	63 A
		gG/gL	-	-	-	-	-	63 A	63 A	63 A	63 A	80 A	80 A
	500V AC	aM	-	-	-	-	-	50 A	50 A	50 A	50 A	50 A	50 A
		gG/gL	-	-	-	-	-	63 A	63 A	63 A	63 A	63 A	63 A
	690V AC	aM	-	-	-	16 A	25 A	32 A	32 A	40 A	40 A	40 A	40 A
		gG/gL	-	-	-	20 A	32 A	40 A	40 A	50 A	50 A	50 A	50 A
Overload protection (ambient temperature 20°C)	$1,05 \times I_N$	No operation within 2 h											
	$1,2 \times I_N$	Operation within 2 h											
	$1,5 \times I_N$	Tripping class 10A: Operation within 2 min, Tripping class 10: Operation within 4 min											
	$7,2 \times I_N$	Tripping class 10A: 2s < Tripping ≤ 10s, Tripping class 10: 4s < Tripping ≤ 10s											
Dimension:		45 x 90 x 95 mm											
Protection degree		IP20											

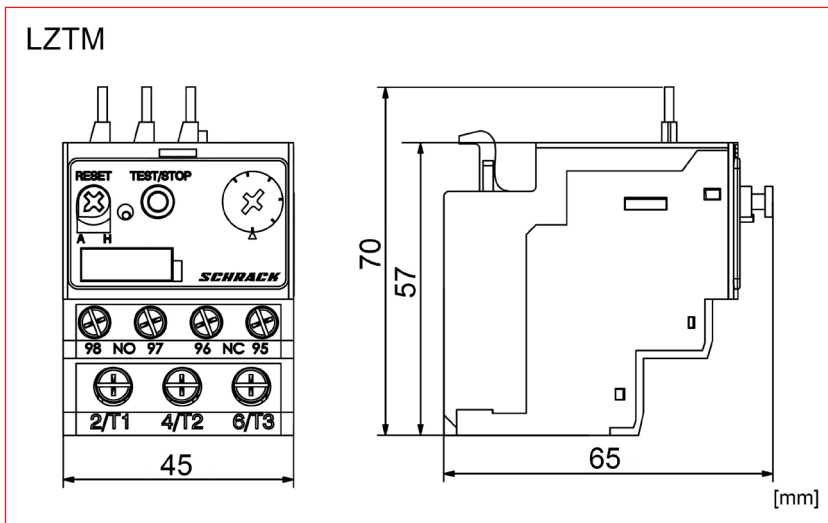
### Circuit Diagram





Thermal Overload Relays Series CUBICO Mini

Dimensions



# Thermal Overload Relays Series CUBICO

## Thermal Overload Relays Series CUBICO Mini

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Bimetal Version</b>		
0,1 - 0,16A		LZTM0016
0,16 - 0,25A		LZTM0025
0,25 - 0,40A		LZTM0040
0,4 - 0,63A		LZTM0063
0,63 - 1A		LZTM0100
1 - 1,6A		LZTM0160
1,6 - 2,5A		LZTM0250
2,5 - 4A		LZTM0400
4 - 6A		LZTM0600
5,5 - 8A		LZTM0800
7 - 10A		LZTM1000
9 - 13A		LZTM1300

## Thermal Overload Relays Series CUBICO Classic



LZTC0025

### Schrack-Info

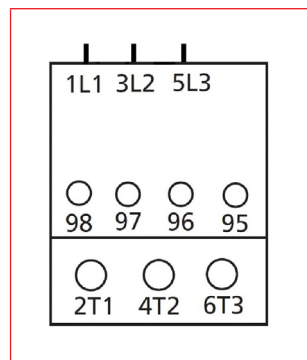
- Matching on contactor series CUBICO Classic
- Plug-in type
- Included auxiliary contacts 1 NO and 1 NC
- Phase failure protection
- Manual and automatic reset
- Temperature compensation
- Tripping indicator
- Test- and Stop-button

# Thermal Overload Relays Series CUBICO

## Thermal Overload Relays Series CUBICO Classic

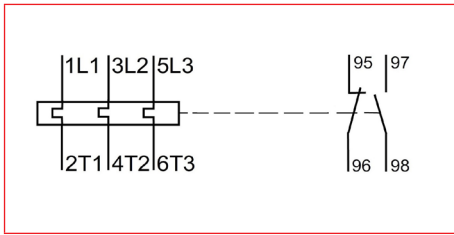
Standard	EN 60947-4-1, IEC 60947-4-1		
Rated current	0,16A - 38A		
Tripping class	Class 10A		
Overload protection	1,05 x I <sub>N</sub>	No operation within 2h	
	1,2 x I <sub>N</sub>	Operation within 2h	
	1,5 x I <sub>N</sub>	Operation within 2min	
	7,2 x I <sub>N</sub>	2s < Tripping ≤ 10s	
Rated insulation voltage	690V AC		
Rated frequency	50/60Hz		
Rated impulse withstand voltage	6 kV		
Overvoltage category	III		
<b>Model of matching contactor</b>			
	LZDC09..	Contactor 3-pole, CUBICO Classic, 4kW, 9A	
	LZDC12..	Contactor 3-pole, CUBICO Classic, 5,5kW, 12A	
	LZDC18..	Contactor 3-pole, CUBICO Classic, 7,5kW, 18A	
	LZDC25..	Contactor 3-pole, CUBICO Classic, 11kW, 25A	
	LZDC32..	Contactor 3-pole, CUBICO Classic, 15kW, 32A	
	LZDC38..	Contactor 3-pole, CUBICO Classic, 18,5kW, 38A	
<b>Specification of matching fuse</b>			
	LZTC0025	0,16A-0,25A	2A gG/gL
	LZTC0040	0,25-0,4A	2A gG/gL
	LZTC0063	0,4-0,63A	2A gG/gL
	LZTC0100	0,63-1A	4A gG/gL
	LZTC0160	1-1,6A	4A gG/gL
	LZTC0250	1,6-2,5A	6A gG/gL
	LZTC0400	2,5-4A	10A gG/gL
	LZTC0600	4-6A	16A gG/gL
	LZTC0800	5,5-8A	20A gG/gL
	LZTC1000	7-10A	20A gG/gL
	LZTC1300	9-13A	25A gG/gL
	LZTC1800	12-18A	35A gG/gL
	LZTC2400	16-24A	50A gG/gL
	LZTC3200	23-32A	63A gG/gL
	LZTC3800	30-38A	80A gG/gL
Mounting type	Plug-in type		
Auxiliary contact	1NO + 1NC		
<b>Rated current of auxiliary contact</b>			
	AC-15 230 V	2,61 A	
	AC-15 400 V	1,5 A	
	DC-13 220 V	0,2 A	
<b>Terminal cross section Main circuit</b>			
	Single-core conductor copper	1 - 10 mm <sup>2</sup>	
	Stranded conductor copper	1 - 10 mm <sup>2</sup>	
	Terminal screw	M4	
<b>Terminal cross section Auxiliary circuit</b>			
	Single-core conductor copper	0,5 - 2,5 mm <sup>2</sup>	
	Stranded conductor copper	0,5 - 2,5 mm <sup>2</sup>	
	Terminal screw	M3,5	

## Connection Diagram

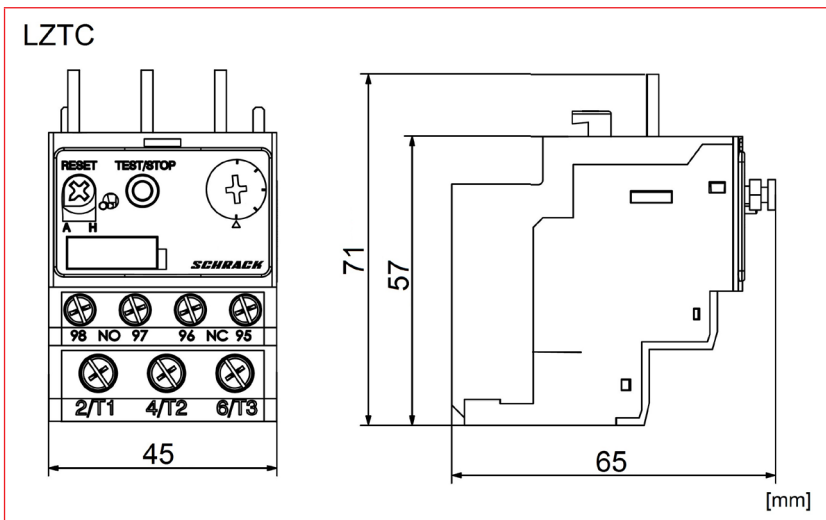


## Thermal Overload Relays Series CUBICO Classic

### Circuit Diagram



### Dimensions



# Thermal Overload Relays Series CUBICO

## Thermal Overload Relays Series CUBICO Classic

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Bimetal Version</b>		
0,25 - 0,4A		LZTC0040
0,4 - 0,63A		LZTC0063
0,63 - 1A		LZTC0100
1 - 1,6A		LZTC0160
2,5 - 4A		LZTC0400
4 - 6A		LZTC0600
7 - 10A		LZTC1000
9 - 13A		LZTC1300
12 - 18A		LZTC1800
16 - 24A		LZTC2400
23 - 32A		LZTC3200
30 - 38A		LZTC3800
0.1A - 0.14A		LZTC0010-A
0.14A - 0.2A		LZTC0020-A
0.18A-0.25A		LZTC0025-A
0.22A - 0.32A		LZTC0032-A
0.28A - 0.4A		LZTC0040-A
0.35A - 0.5A		LZTC0050-A
0.45A - 0.63A		LZTC0063-A
0.55A - 0.8A		LZTC0080-A
0.7A - 1A		LZTC0100-A
0.9A - 1.25A		LZTC0125-A
1.1A - 1,6A		LZTC0160-A
1.4A - 2,5A		LZTC0200-A
1.8A - 2,5A		LZTC0250-A
2.2A - 3.2A		LZTC0320-A
2.8A - 4A		LZTC0400-A
3.5A - 5A		LZTC0500-A
4.5 - 6.3A		LZTC0630-A
5.5A - 8A		LZTC0800-A
7.5A - 10A		LZTC1000-A
9A - 13A		LZTC1300-A
12A - 16A		LZTC1600-A
14A - 20A		LZTC2000-A
18A - 24A		LZTC2400-A
23A - 32A		LZTC3200-A
30A - 38A		LZTC3800-A

## Motor Protection Circuit Breaker series CUBICO Size 0

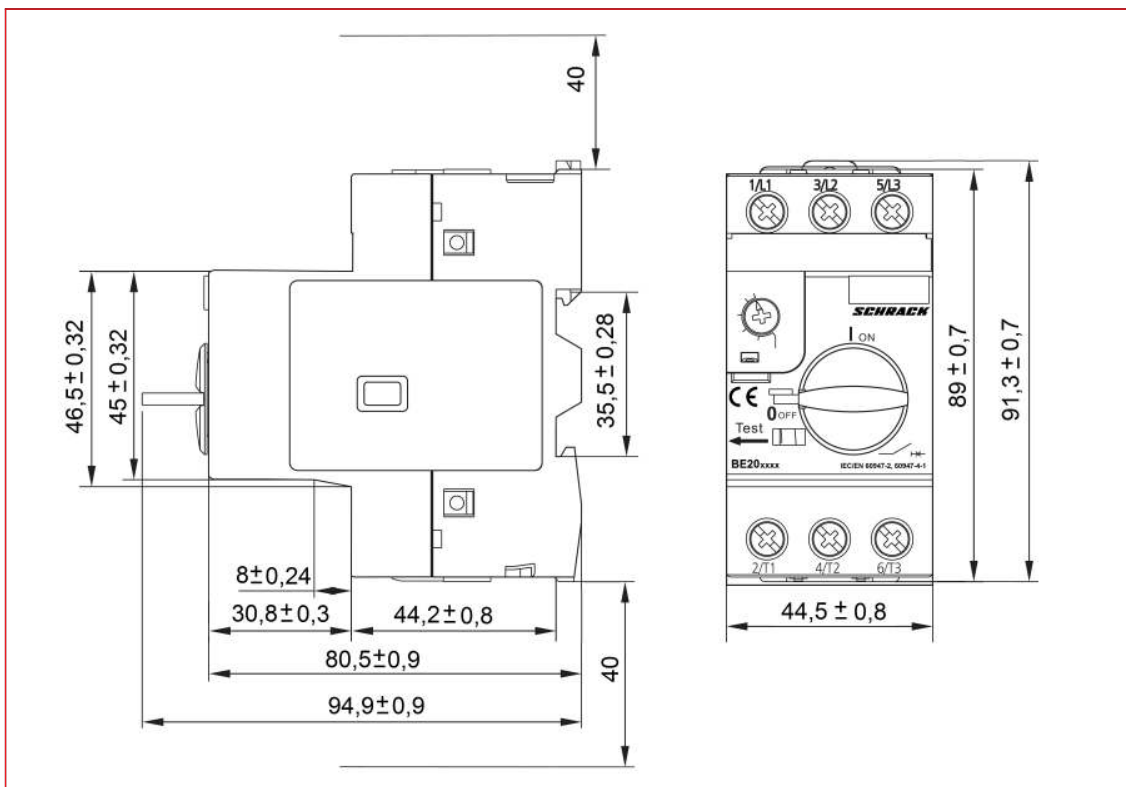


BE300025

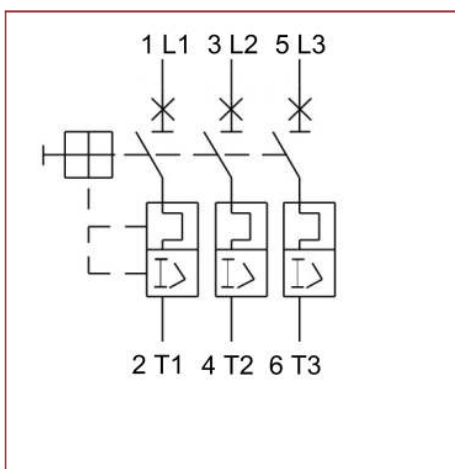
### Schrack-Info

- Motor protection switch series CUBICO according to EN 60947-2
- For rated current of motor from 0.16A up to 32A
- Tripping class 10A
- Suitable for IE3 motors
- With phase failure monitoring
- "Side mounted" and frontside auxiliary contacts optional

### Dimensioned drawing: Motor Protection Circuit Breaker series CUBICO Size 0



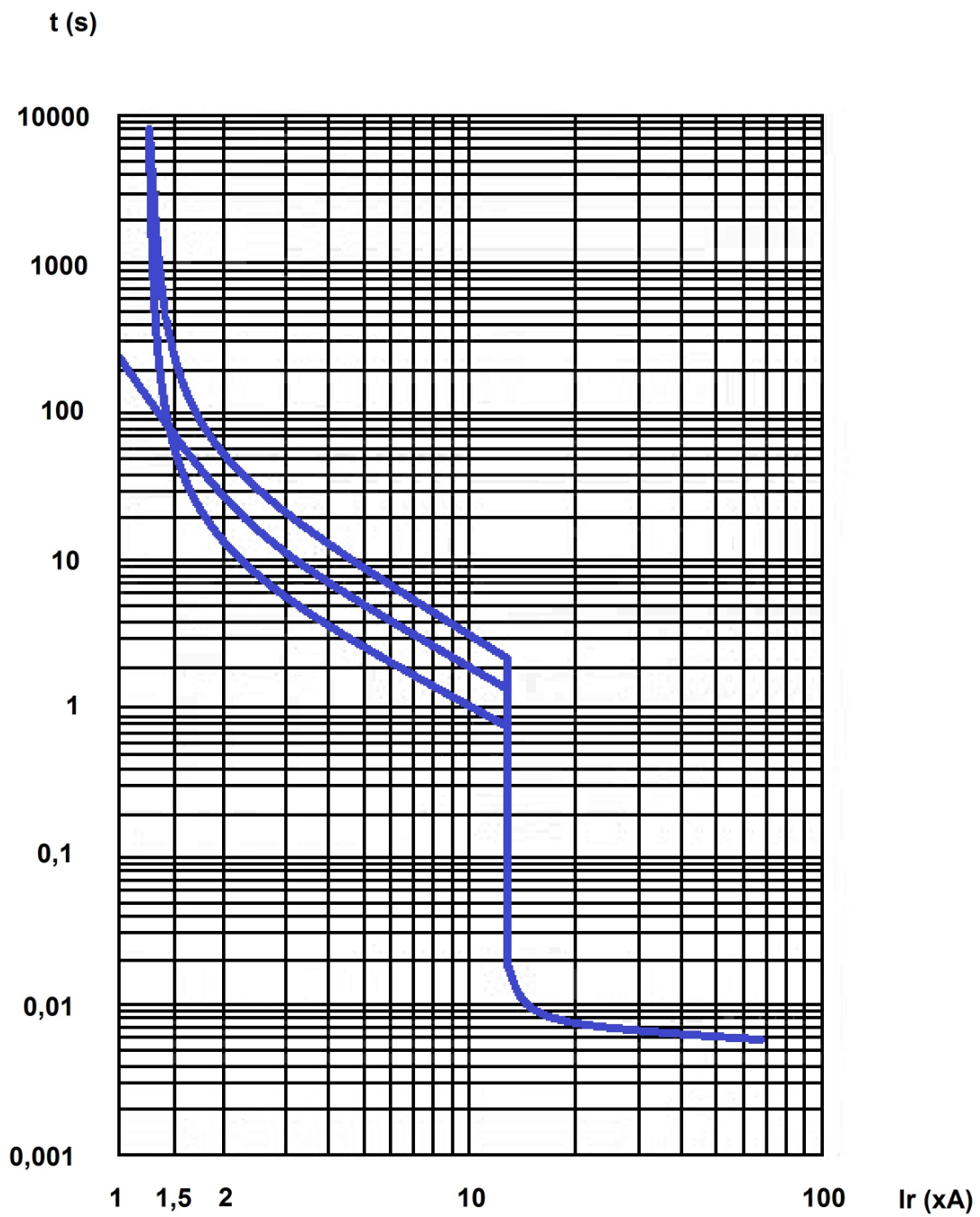
### Circuit diagram: Motor Protection Circuit Breaker series CUBICO Size 0



# Motor Protection Circuit Breaker series CUBICO

Motor Protection Circuit Breaker series CUBICO Size 0




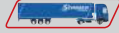

Diagram: Motor Protection Circuit Breaker series CUBICO Size 0














## Motor Protection Circuit Breaker series CUBICO Size 0

Type	0.4 - 0.63 A	0.63 - 1 A	1 - 1.6 A	1.6 - 2.5 A	2.5 - 4 A
Standard	IEC/EN 60947-2, IEC/EN 60947-4-1				
Rated operational voltage $U_e$	230/230V AC, 400/415V AC, 440V AC, 500V AC, 690V AC				
Rated insulation voltage $U_i$	690V AC				
Rated frequency	50Hz				
Rated impulse withstand voltage $U_{imp}$	8kV				
Overtoltage category	III				
Arcing distance	40mm				
Range of current	0.4 - 0.63 A	0.63 - 1 A	1 - 1.6 A	1.6 - 2.5 A	2.5 - 4 A
Rated current	0.63 A	1 A	1.6 A	2.5 A	4 A
Standard rated power of three phase motor					
230/230V AC	-	-	-	0.37 kW	0.75 kW
400/415V AC	-	-	0.37 kW	0.75 kW	1.5 kW
440V AC	-	0.37 kW	0.55 kW	1.1 kW	1.5 kW
500V AC	-	0.37 kW	0.75 kW	1.1 kW	2.2 kW
690V AC	0.37 kW	0.55 kW	1.1 kW	1.5 kW	3.0 kW
Rated ultimate short-circuit breaking capacity $I_{cc}$					
230/230V AC	100 kA	100 kA	100 kA	100 kA	100 kA
400/415V AC	100 kA	100 kA	100 kA	100 kA	100 kA
440V AC	100 kA	100 kA	100 kA	100 kA	100 kA
500V AC	100 kA	100 kA	100 kA	100 kA	100 kA
690V AC	100 kA	100 kA	100 kA	3 kA	3 kA
Rated ultimate short-circuit breaking capacity $I_{cc}$					
230/230V AC	100 kA	100 kA	100 kA	100 kA	100 kA
400/415V AC	100 kA	100 kA	100 kA	100 kA	100 kA
440V AC	100 kA	100 kA	100 kA	100 kA	100 kA
500V AC	100 kA	100 kA	100 kA	100 kA	100 kA
690V AC	100 kA	100 kA	100 kA	2.25 kA	2.25 kA
Current setting value of instantaneous electromagnetic release $I_r$	8 A	13 A	22.5 A	33.5 A	51 A
Current rating of back-up fuse if $I_{cc} > I_{cu}$					
230/230V AC	aM	-	-	-	-
	gG/gL	-	-	-	-
400/415V AC	aM	-	-	-	-
	gG/gL	-	-	-	-
440V AC	aM	-	-	-	-
	gG/gL	-	-	-	-
500V AC	aM	-	-	-	-
	gG/gL	-	-	-	-
690V AC	aM	-	-	16 A	25 A
	gG/gL	-	-	20 A	32 A
Overload protection (ambient temperature 20°C)					
	$1.05 \times I_N$	No operation within 2 h			
	$1.2 \times I_N$	Operation within 2 h			
	$1.5 \times I_N$	Tripping class 10A: Operation within 2 min, Tripping class 10: Operation within 4 min			
	$7.2 \times I_N$	Tripping class 10A: $2s < \text{Tripping} \leq 10s$ , Tripping class 10: $4s < \text{Tripping} \leq 10s$			
Dimension:	45 x 90 x 95 mm				
Protection degree	IP20				

DESCRIPTION	AVAILABLE	ORDER NO.
0,16 - 0,25A		<b>BE200025</b>
0,25 - 0,4A		<b>BE200040</b>
0,4 - 0,63A		<b>BE200063</b>
0,63 - 1A		<b>BE200100</b>
1 - 1,6A		<b>BE200160</b>

# Motor Protection Circuit Breaker series CUBICO

## Motor Protection Circuit Breaker series CUBICO Size 0

DESCRIPTION	AVAILABLE	ORDER NO.
1,6 - 2,5A		<b>BE200250</b>
2,5 - 4A		<b>BE200400</b>
4 - 6,3A		<b>BE200630</b>
6 - 10A		<b>BE201000</b>
9 - 14A		<b>BE201400</b>
13 - 18A		<b>BE201800</b>
17 - 23A		<b>BE202300</b>
20 - 25A		<b>BE202500</b>
24 - 32A		<b>BE203200</b>

## Accessories for Motor Protection Circuit Breaker series CUBICO











BE2ZAS11



BE2ZU230

### Schrack-Info

- Accessories for Motor Protection Circuit Breaker series BE2
- Auxiliary contacts mountable on front or side
- Undervoltage and shunt-release
- Covers

DESCRIPTION	AVAILABLE	ORDER NO.
Auxiliary contact, side-mounting for BE2		<b>BE2ZAS11</b>
Auxiliary contact, front-mounting for BE2		<b>BE2ZAF11</b>
Auxiliary contact, side-mounting for BE2, 1NO Fault, 1 NO operating position		<b>BE2ZTS20</b>
Auxiliary contact, side-mounting for BE2, 1NC Fault, 1 NC operating position		<b>BE2ZTS02</b>
Undervoltage release unit for BE2 230VAC 50Hz		<b>BE2ZU230</b>
Shunt release unit for BE2 230VAC 50Hz		<b>BE2ZS230</b>
Enclosure for BE2P with membrane		<b>BE2ZBM00</b>
Enclosure for BE2P with emergency-off Push button		<b>BE2ZBE00</b>