

# CAPAROC PM S-R EX - Feed-in module



1344363

<https://www.phoenixcontact.com/au/products/1344363>

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Power module with status output and reset input for supplying the CAPAROC circuit breaker system with 12 V DC or 24 V DC. EX e approval for zone 2. For DIN rail installation via the CAPAROC current rails.

## Your advantages

- The customizable standard, thanks to individual combinations of the future-proof modular system
- Easy operation for everyone through tool-free assembly, uninterrupted installation, and transparent operating state
- Strikingly simple design-in with extensive support from the selection up to digital services

## Commercial data

Item number	1344363
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CLA231
Product key	CLA231
GTIN	4063151658403
Weight per piece (including packing)	129 g
Weight per piece (excluding packing)	91.9 g
Customs tariff number	85363010
Country of origin	DE

## Technical data

### Notes

#### General

Note	LABS release – in accordance with test specification VW PV 3. 10.7:2005-0
	When connecting the conductor, make sure that the CAPAROC modules are not pulled apart due to tensile force. Gaps must not be created between the modules.
	Observe the specified conditions for use in potentially explosive areas. Install the device in a suitable approved housing with at least IP54 degree of protection that meets the requirements of IEC/EN 60079-0. Also observe the requirements of IEC/EN 60079-14.

### Product properties

Product type	Device circuit breakers
Product family	CAPAROC
Type	Plug-in module
Number of slots	2

#### Insulation characteristics

Protection class	III
Pollution degree	2

### Electrical properties

#### General

Operating voltage	10 V DC ... 30 V DC
Rated voltage	12 V DC
	24 V DC
Rated current $I_N$	45 A DC (Total current input)
Rated surge voltage	0.5 kV
Tripping method	E (electronic)
Dielectric strength	35 V DC (Load circuit)
Efficiency	> 99 %
Closed circuit current $I_0$	typ. 9 mA (no load at 24 V)
Power dissipation	typ. 0.22 W (no load at 24 V)
	< 1.5 W (in nominal operation at 24 V and 45 A)
Temperature derating	45 A (Total current at 40°C)
	30 A (Total current at 65 °C)
MTBF (IEC 61709, SN 29500)	18886912.65 h (at 25 °C with 21 % load)
	5907048.64 h (at 40°C with 34.25% load)
	933563.97 h (at 40°C with 100% load)
Voltage drop	0.03 V (at 45 A)

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## Load circuit

Undervoltage switch-off	$\leq 9.2 \text{ V DC (active)}$
	$\geq 10.2 \text{ V DC (inactive)}$
Overvoltage switch-off	$\geq 30.5 \text{ V DC (active)}$
	$\leq 29.5 \text{ V DC (inactive)}$

## Reset

Input voltage range	7 V DC ... 30 V DC (Reset with falling edge)
Current consumption	typ. 0.5 mA (at 24 V DC)
Pulse length	$\geq 50 \text{ ms}$
Stripping length	8 mm
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

## Status output

Output voltage	max. 30 V DC (Input voltage $\pm 5\%$ in the event of no error)
	0 V DC (Error)
Output current	max. 20 mA
Stripping length	8 mm
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

## Status output

Output voltage	max. 30 V DC (Input voltage $\pm 5\%$ when I >80% at at least one channel)
Output current	max. 20 mA
Stripping length	8 mm
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

## Connection data

### Main circuit IN+

Connection method	Push-in connection
Stripping length	18 mm
Conductor cross section rigid	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	20 ... 8
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>

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Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
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## Main circuit IN-

Connection method	Push-in connection
Stripping length	18 mm
Conductor cross section rigid	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	20 ... 8
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>

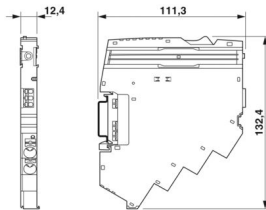
## Interfaces

Maximum system extension	≤ 20 (CAPAROC modules alignable)
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## Signaling

Power (PWR) LED green	lit (with no channel errors)
	lit (Supply voltage in the nominal range)
	flashing (3 x on deactivation of programming lock)
Power (PWR) LED red	lit (Supply voltage outside the nominal range)
Power (PWR) LED yellow	flashing (3 x on activation of programming lock)
Green signal LED	lit (with no channel errors)
	lit (Supply voltage in the nominal range)
Yellow signal LED	lit (when I > 80% at at least one channel)
Red signal LED	lit (with at least one channel error)
	lit (Supply voltage outside the nominal range)

## Dimensions

Dimensional drawing	
Width	12.4 mm
Height	132.4 mm
Depth	111.3 mm (incl. DIN rail 7.5 mm)

## Material specifications

Color	light gray (RAL 7035)
Material	PA 6
	PA 6
	PA 6
	PC
Flammability rating according to UL 94	V-0

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-30 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 4000 m (amsl)
Humidity test	96 h, 95 % RH, 40 °C
Shock (operation)	30g (11 ms period, half-sine shock pulse, according to IEC 60068-2-27)
	25g (6 ms duration, half-sine shock pulse in accordance with IEC 60068-2-27, continuous shock)
Vibration (operation)	5g (10 Hz ... 150 Hz / 10 cycles / axis / X, Y, Z)

## Approvals

### UL approval

Identification	UL/C-UL Listed UL 508
	UL 121201 Class I, Division 2, Groups A, B, C, D, T4A

### ATEX

Identification	TÜV 22 ATEX 8874 X
	II 3G Ex ec IIC T4 Gc

### IECEX

Identification	IECEX TUR 22.0049X
	II 3G Ex ec IIC T4 Gc

### UKCA Ex (UKEX)

Identification	TÜV 22 UKEX 7109 X
	II 3G Ex ec IIC T4 Gc

### Corrosive gas test

Identification	ISA S71.04.2013 G3 Harsh Group A
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## Standards and regulations

Standards/specifications	EN 61000-6-2
Note	EMC – Immunity for industrial areas
Standards/specifications	EN 61000-6-3
Note	EMC – Emission for residential, business and commercial properties and small operations
Standards/specifications	EN 60068-2-78
Note	Environmental influences – Moisture and heat, constant
Standards/specifications	EN 50178
Note	Equipping power installations with electronic equipment
Standards/specifications	EN 60068-2-27
Note	Environmental influences – Shocks

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Standards/specifications	IEC 60079-7
Note	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”
Standards/specifications	IEC 60079-0
Note	Explosive atmospheres – Part 0: Equipment – General requirements

## Mounting

Mounting type	pluggable onto CAPAROC CR... current rail
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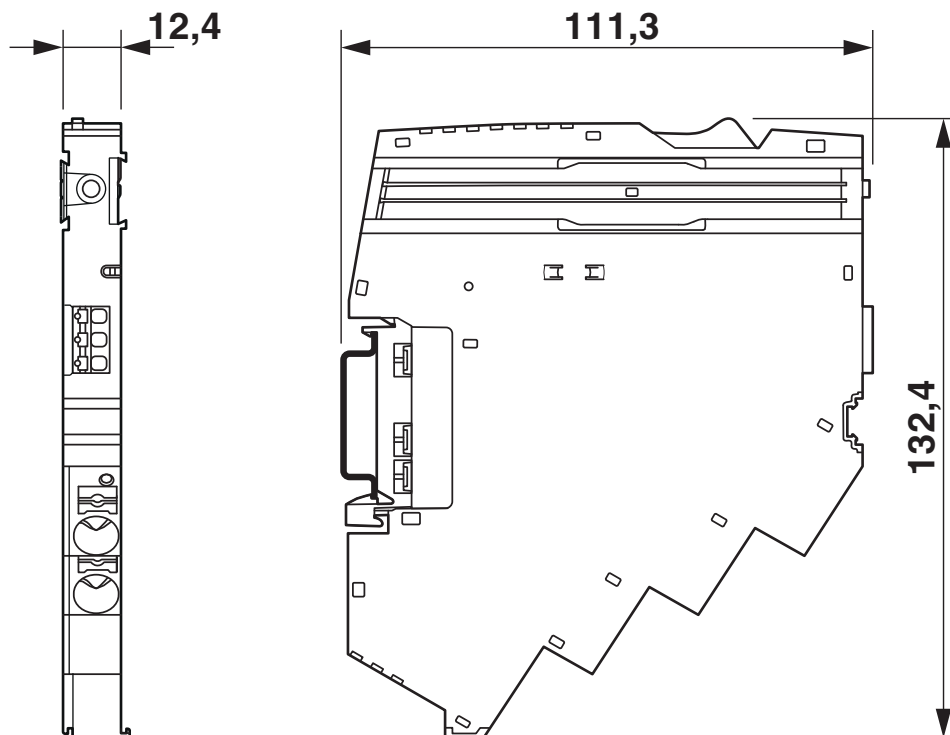
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## Drawings

Dimensional drawing

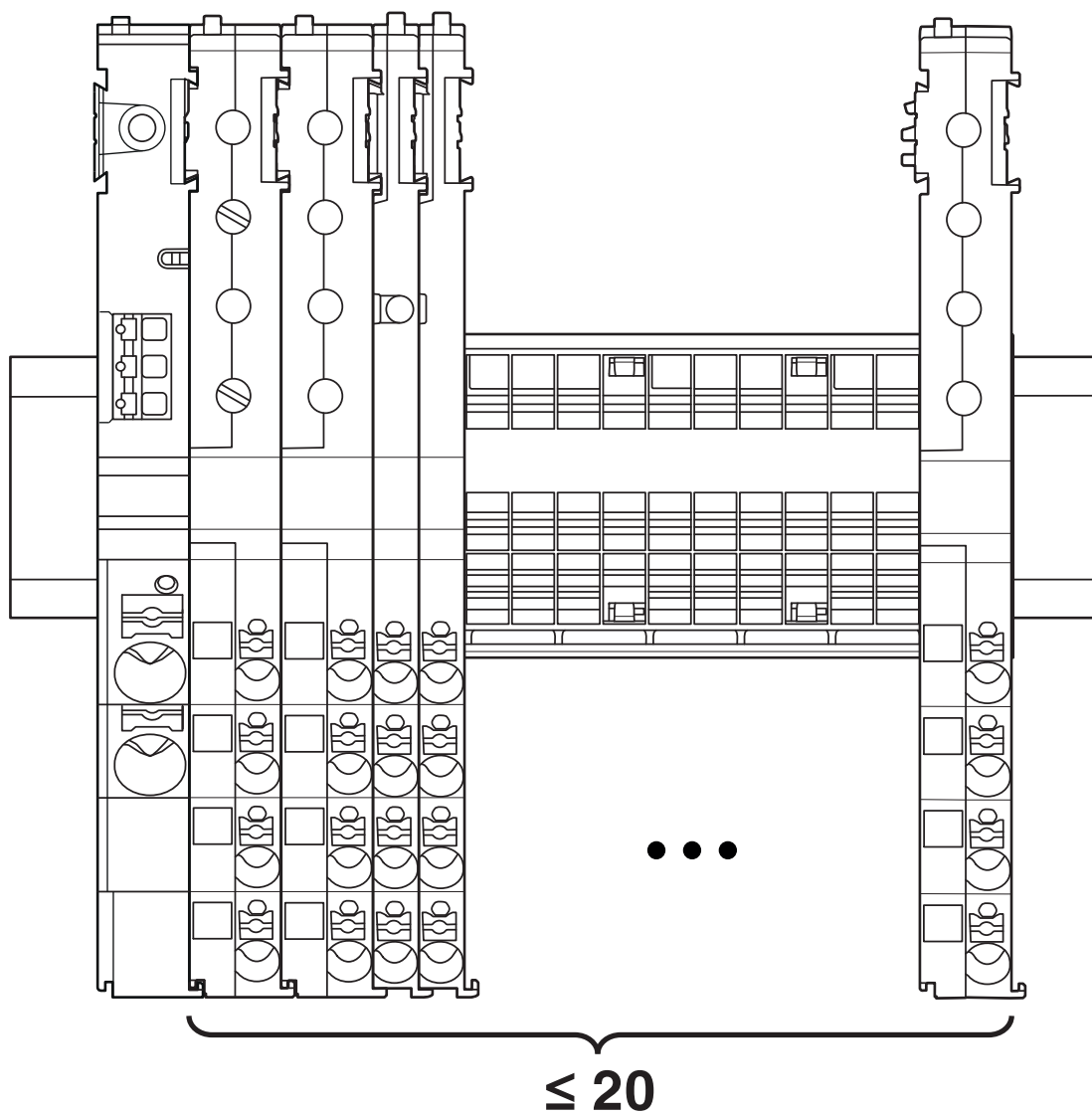


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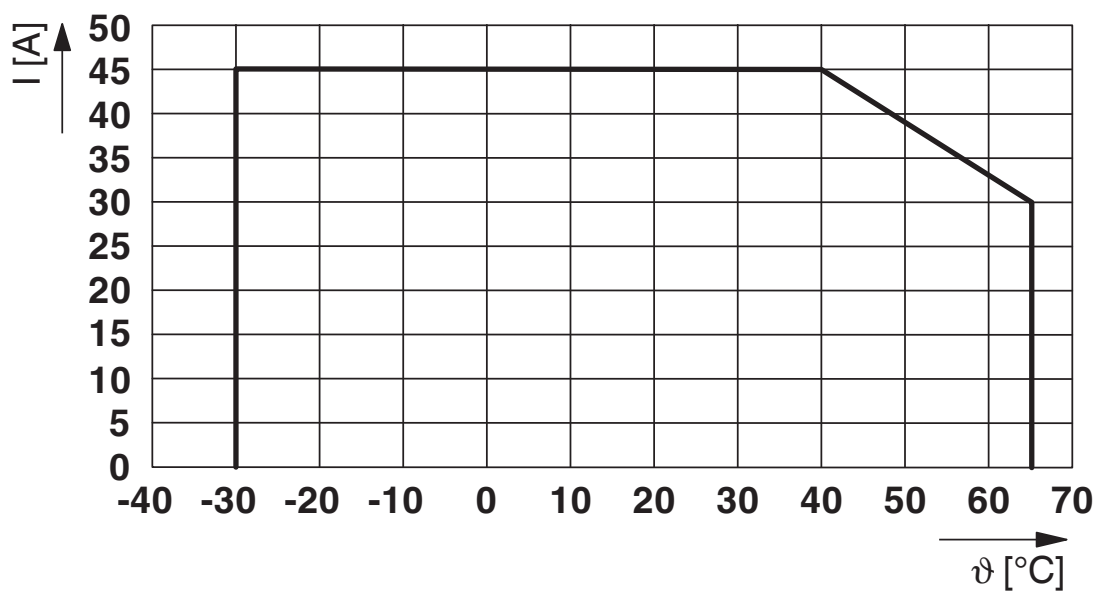
Schematic diagram



When using the power module with status output and reset input (CAPAROC PM S-R), max. 20 circuit breaker modules can be set. Any number of extra potential distribution modules can be added.

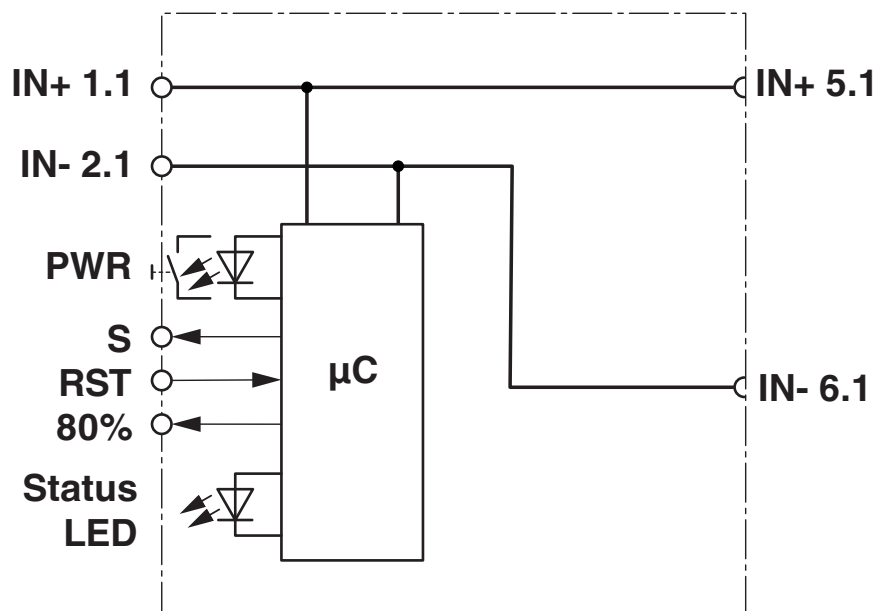


Diagram



Max. permissible current in relation to the ambient temperature

Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/1344363>



### UL Listed

Approval ID: E123528



### cUL Listed

Approval ID: E123528



### IECEx

Approval ID: IECEx TUR 22.0049X



### cUL Listed

Approval ID: FILE E 483407



### UL Listed

Approval ID: FILE E 483407



### ATEX

Approval ID: TÜV 22 ATEX 8874 X



### UKCA-EX

Approval ID: TÜV 22 UKEX 7109 X

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## Classifications

### ECLASS

ECLASS-13.0	27140401
ECLASS-15.0	27140401

### ETIM

ETIM 9.0	EC003538
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	2f4d0d38-d708-41af-8858-925d40acf053