

# ECP 10 - Electronic circuit breaker



0912020

<https://www.phoenixcontact.com/us/products/0912020>

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Electronic circuit breaker, 1-position, connection method: pluggable, tripping characteristic: electronic, fuse type: Automatic device, mounting type: on base element

## Your advantages

- System safety is increased during maintenance work thanks to disconnection via electrical isolation
- Error-free short-circuit detection even across long cable paths with the electronics characteristic curve
- Active current limitation to improve the capacity of the upstream power supply

## Commercial data

Item number	0912020
Packing unit	1 pc
Sales key	CL04
Product key	CLA132
GTIN	4046356014359
Weight per piece (including packing)	77.4 g
Weight per piece (excluding packing)	74.78 g
Customs tariff number	85362010
Country of origin	DE

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## Technical data

### Product properties

Product type	Device circuit breakers
Product family	ECP
Type	Male
Number of positions	1
Number of rows	1
No. of channels	1

### Insulation characteristics

Overvoltage category	II
Degree of pollution	2

### Electrical properties

Fuse type	Automatic device
Switch-on delay	300.00 ms
Short-circuit current	Active current limitation, max. $1.8 \times I_N$
Service life electrical	10000 cycles in the case of $1 \times I_N$
Switching capacity $I_{CN}$	Active current limitation
Fuse	electronic

### General

Operating voltage	24 V DC
	18 V DC ... 32 V DC
Nominal current $I_N$	10 A
Rated surge voltage	0.5 kV
Tripping method	E (electronic)
Required backup fuse	not required, integrated failsafe element
Dielectric strength	1000 V AC (Actuation area)
	500 V AC (Installation area)
	500 V AC (Load circuit signal contact)
Switch off	typ. $1.5 \times I_N$
Active current limitation	active
Fuse	electronic
Closed circuit current $I_0$	typ. 13 mA
Voltage drop	280 mV (at $I_N$ )
Contact switching type	With electrical isolation

### Load circuit

Shutdown time	typ. 5 s (for electrical insulation when $I_{Load} > 1.1 \times I_N$ )
Max. capacitive load	20000 $\mu$ F
Switch-on delay	typ. 0.3 s

### Auxiliary contact

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Contact connection type	floating signal contact
Minimum operating voltage $U_{\min}$ DC	10 V DC
Maximum operating voltage $U_{\max}$ DC	30 V DC
Minimum operating current $I_{\min}$	10 mA
Max. operating current $I_{\max}$	0.5 A

## Connection data

Connection method	pluggable
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## Dimensions

Width	12.5 mm
Height	60 mm
Height NS 35/15	151.5 mm
Height NS 35/7,5	144 mm
Depth	70 mm
Complete module width	38 mm
Complete module height	115 mm
Complete module depth	147.5 mm

## Material specifications

Flammability rating according to UL 94	V0
Insulating material group	IIIa
Insulating material	PPS

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP30 (Actuation area)
Ambient temperature (operation)	0 °C ... 50 °C (non-condensing)
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Humidity test	96 h, 95 % RH, 40 °C

## Mounting

Mounting type	on base element
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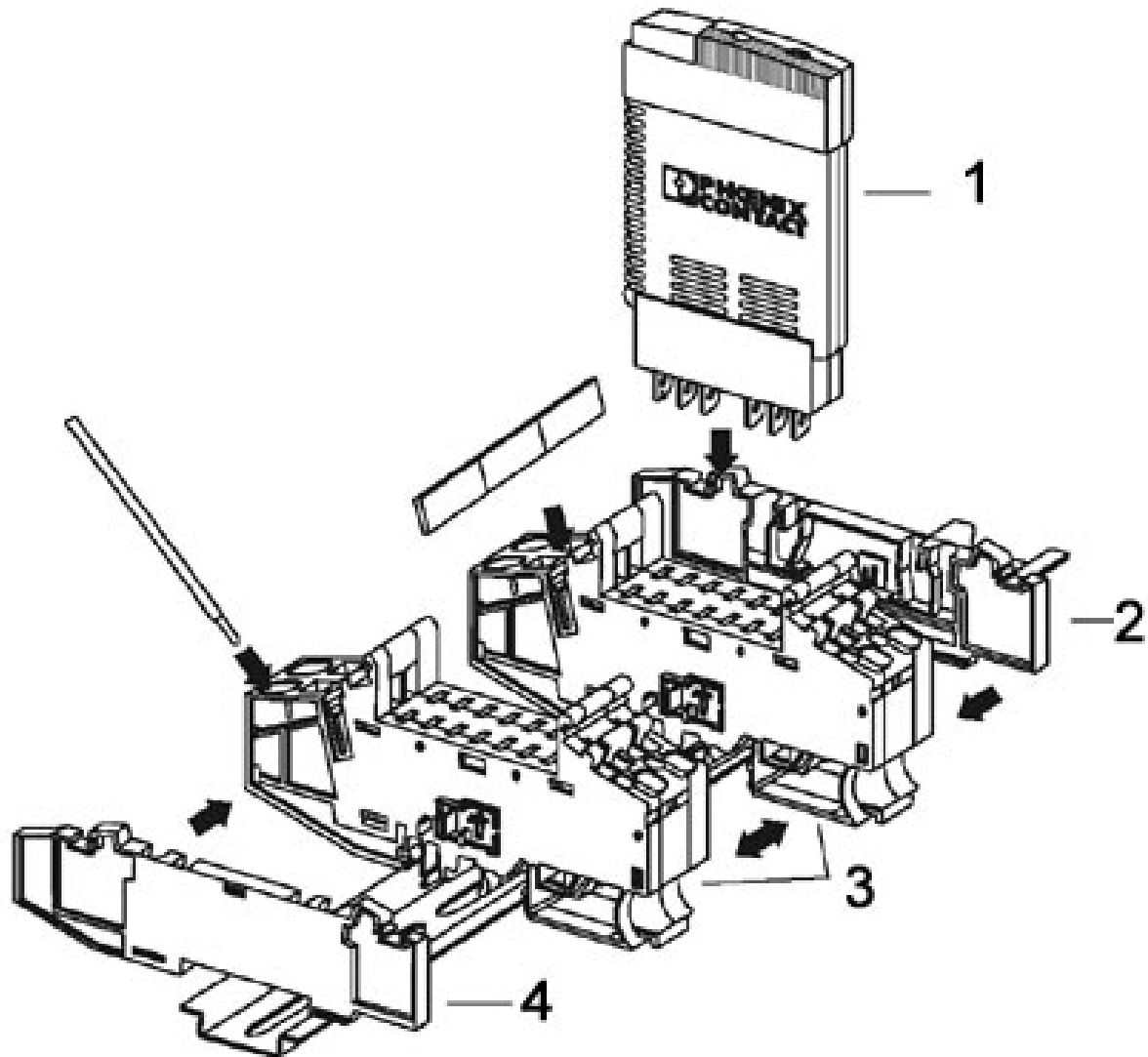
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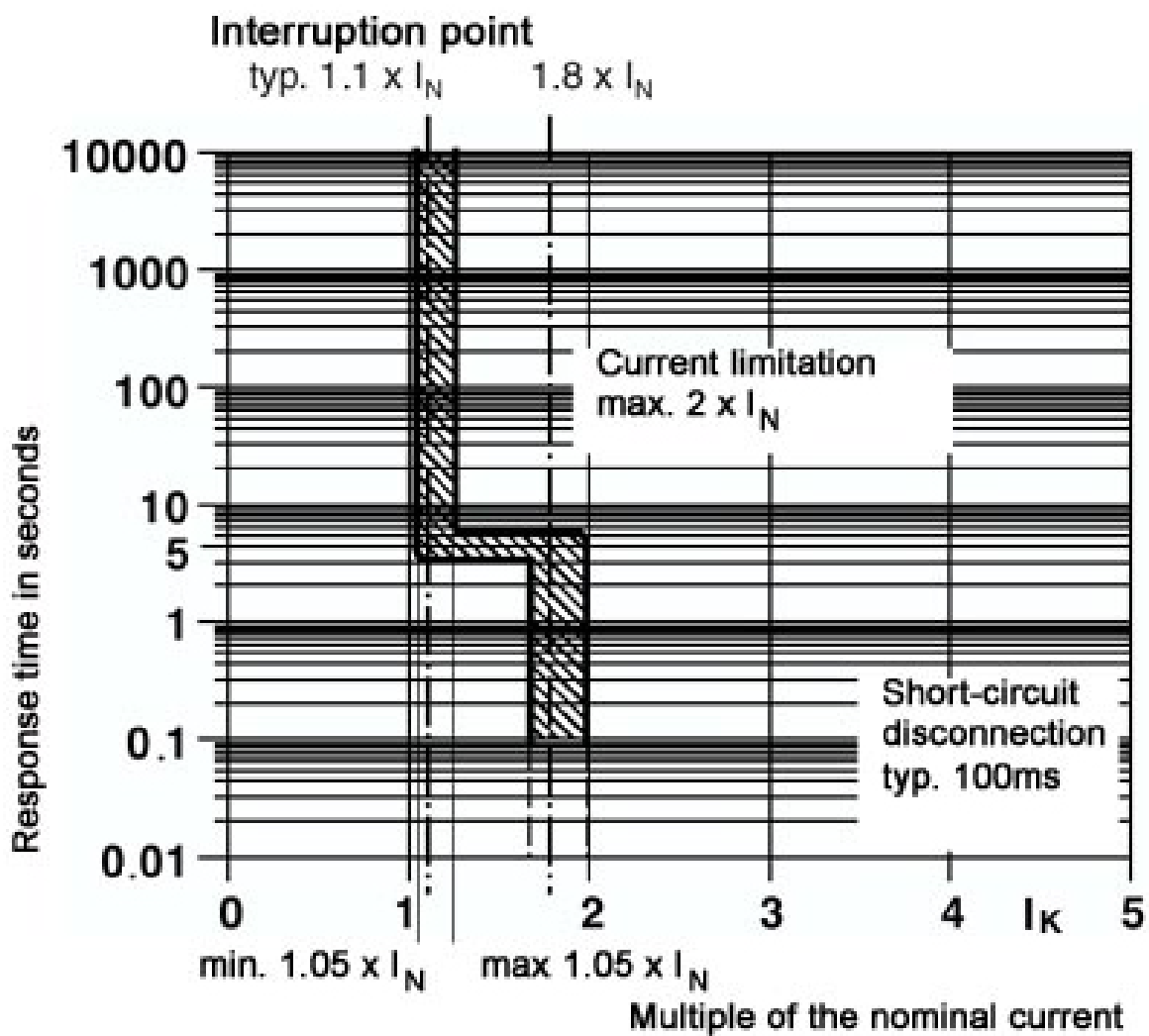
## Drawings

Functional drawing



- 1 = Selective circuit breaker
- 2 = Socket termination element
- 3 = Modular socket element
- 4 = Socket termination element

Diagram



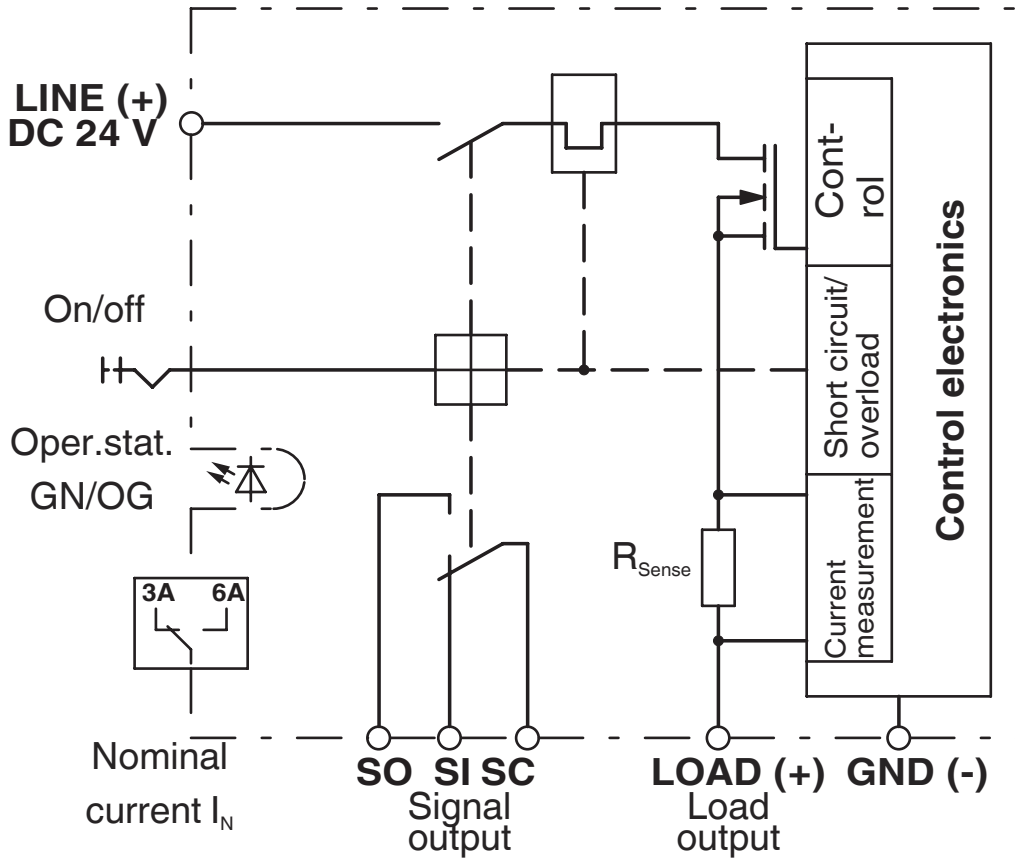
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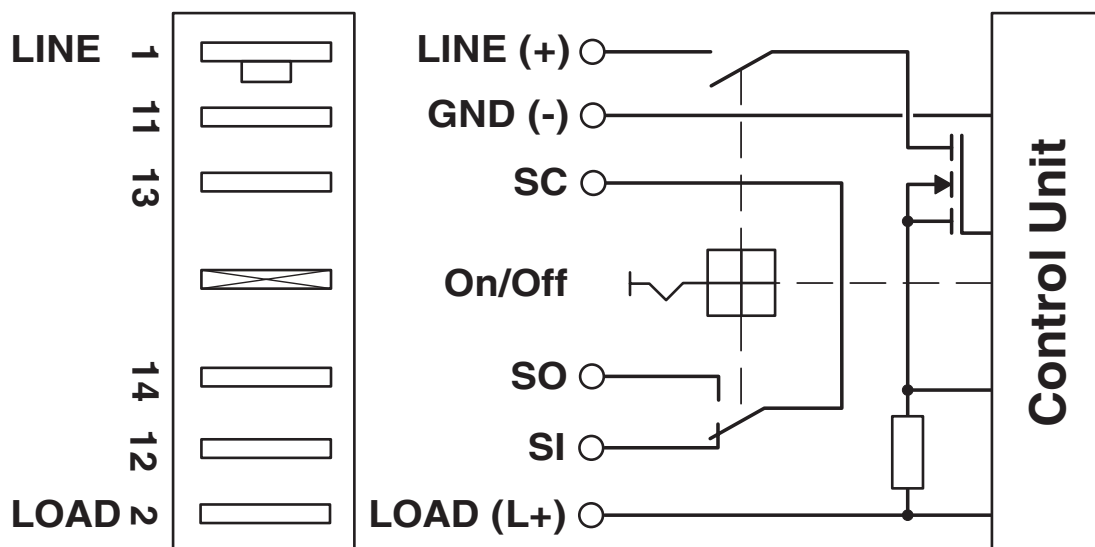
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Circuit diagram



Block diagram



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## Classifications

### UNSPSC

UNSPSC 21.0	39121410
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a)

### 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)
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)