

ELR 1-230AC/600AC-50 - Solid-state contactor



2297183

<https://www.phoenixcontact.com/us/products/2297183>

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Single-phase solid-state contactor, input voltage: 230 V AC, output current: 50 A, zero voltage switch

Your advantages

- High switching frequency
- Wear and bounce-free
- 24 V DC and 230 V AC input voltage versions

Commercial Data

Item number	2297183
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C05
Product Key	CK7124
Catalog Page	Page 49 (C-5-2017)
GTIN	4046356132008
Weight per Piece (including packing)	420.6 g
Weight per Piece (excluding packing)	420.6 g
Customs tariff number	85362010
Country of origin	MT

Technical Data

Product properties

Product type	Solid-state contactor
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Electrical properties

Number of phases	1
Mains type	1-phase
Test voltage (Input/output)	4 kV _{rms} (50 Hz, 1 min., input/output)

Input data

Control

Input name	Control input
Rated actuating voltage U_C	230 V AC
Triggering voltage range	24 V AC ... 275 V AC
Rated actuating current I_C	approx. 17 mA
Switching threshold	≤ 6 V AC ("0" signal) ≥ 22 V AC ("1" signal)
Operating voltage display	Green LED
Transmission frequency	6 Hz

Output data

Load output

Operating voltage range	42 V AC ... 660 V AC
Rated operating current at AC-51	50 A
Rated operating current at AC-53a	30 A
Peak offstate voltage	1200 V
Mains frequency	45 Hz 65 Hz
Load current range	150 mA ... 50 A (see to derating)
Leakage current	< 3 mA (In off state)
Residual voltage	< 1.6 V
Surge current	1900 A (t = 10 ms)
Max. load value	18000 A ² s
Protective circuit	RCV circuit
Phase angle cos phi min	0.5

Connection data

Control circuits

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3

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Conductor cross section solid	0.5 mm ² ... 4 mm ²
Conductor cross section flexible	0.5 mm ² ... 4 mm ²
Conductor cross section AWG	20 ... 14

Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M5
Conductor cross section solid	4 mm ² ... 25 mm ²
Conductor cross section flexible	4 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 3

LED signaling

Operating voltage display	Green LED
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Dimensions

Width	45 mm
Height	103 mm
Depth	103 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-30 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C

Standards and regulations

Standards/regulations

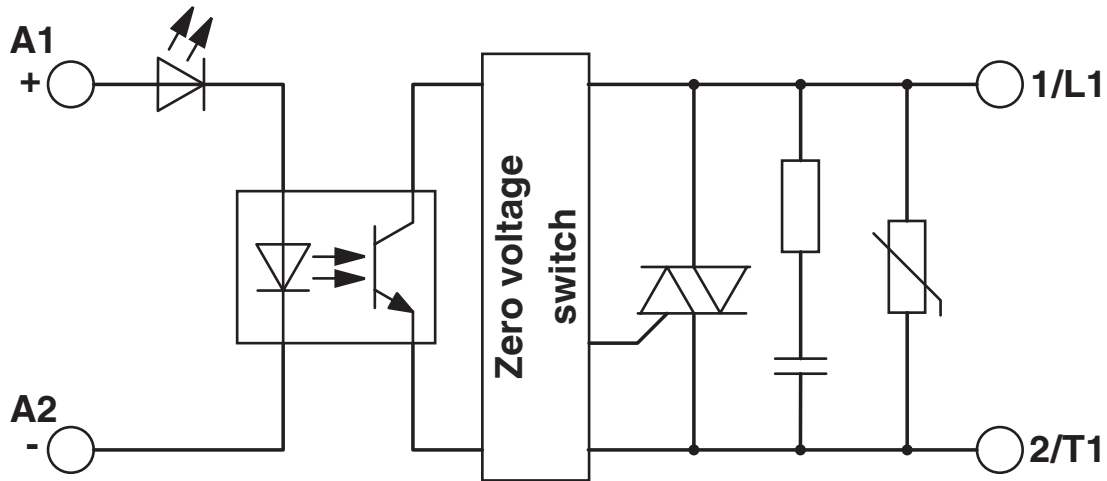
Standards/regulations	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
	EN 61000-4-6
	EN 55011

Mounting

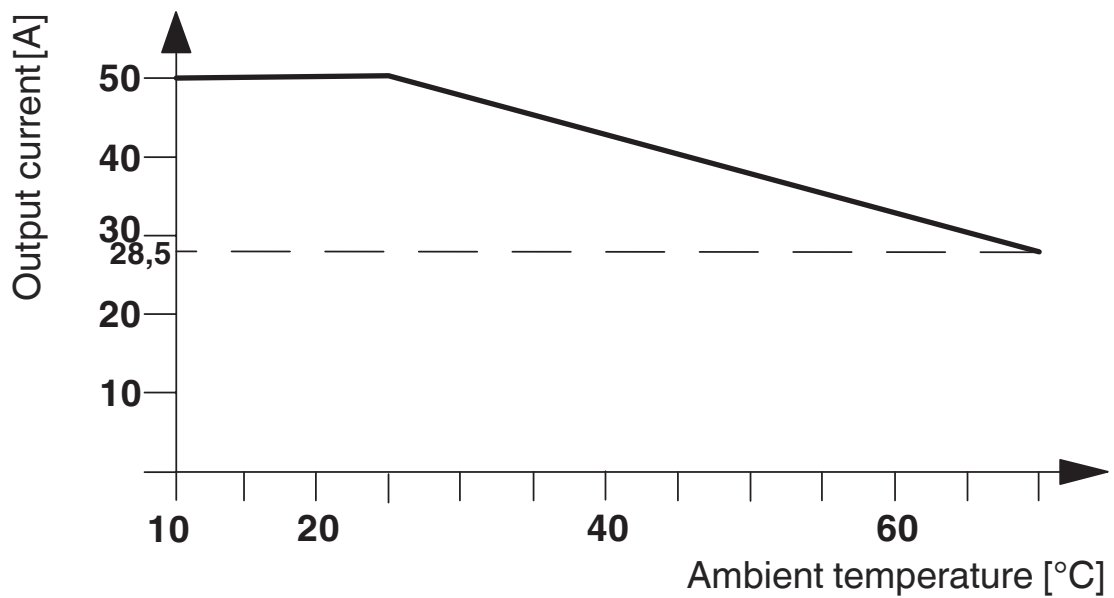
Mounting type	DIN rail mounting
Assembly instructions	Can be aligned with ≥ 22.5 mm spacing
Mounting position	Vertical (horizontal DIN rail)

Drawings

Block diagram



Diagram



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Classifications

ECLASS

ECLASS-10.0.1	27371014
ECLASS-11.0	27371014

ETIM

ETIM 7.0	EC002055
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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com