ELR W3- 24DC/500AC- 2 - Solid-state reversing contactor

2297293

https://www.phoenixcontact.com/us/products/2297293

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Three-phase solid-state reversing contactor with 24 V DC input, 2 A output current, zero voltage switch, optionally with thermal fuse

Your advantages

- Optional thermal fuse
- Stable and short switching times
- Noise and wear-free switching
- Long service life
- Integrated protection circuit
- Integrated locking and load wiring
- High switching frequency

Commercial data

Item number	2297293
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C472
Product key	DK6841
GTIN	4046356175654
Weight per piece (including packing)	425.89 g
Weight per piece (excluding packing)	419.8 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Product properties

Product type	Solid-state contactor
Operating mode	100% operating factor

Electrical properties

Number of phases	3
Switching frequency	max. 5 Hz
Maximum power dissipation for nominal condition	5.5 W
Test voltage (Input/output)	5 kV_{rms} (50 Hz, 60 s)
Switching frequency	max. 5 Hz
Reversing frequency	≤ 10 Hz

Insulation characteristics

Rated insulation voltage	500 V
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	2
Insulation characteristics between the control input voltage to the main circuit	Basic insulation

Input data

Control

Input name	Control input right/left
Rated actuating voltage U_C	24 V DC
Triggering voltage range	19.2 V DC ... 30 V DC
Voltage range with reference to U_C	0.8 ... 1.25
	0.8 ... 1.25
Rated actuating current I_C	12.7 mA
Switching threshold	9.6 V (“0” signal)
	19.2 V (“1” signal)
Protective circuit	Reverse polarity protection; Suppressor diode
	Surge protection
Error indication	Red LED
Status display	LED (yellow)

Output data

AC output

Rated operating voltage U_e	500 V AC
Operating voltage range	48 V AC ... 575 V AC
Rated operating current at AC-51	2 A
Rated operating current at AC-53a	2 A

Peak offstate voltage	1200 V
Mains frequency	40 Hz ... 100 Hz
Load current range	100 mA ... 2 A (see to derating)
Leakage current	6 mA
Residual voltage	< 1.5 V
Surge current	200 A (t = 10 ms)
Max. load value	250 A^2s
Protective circuit	RCV circuit
Surge voltage protection	> 575 V AC

Connection data

Control circuits

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb_f-in. ... 7 lb_f-in.

Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb_f-in. ... 7 lb_f-in.

Signaling

Status display	LED (yellow)
Error indication	Red LED

Dimensions

Width	40 mm
Height	99 mm
Depth	114.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C

Ambient temperature (storage/transport)	-25 °C ... 70 °C

Approvals

UKCA

Certificate	UKCA-compliant

UL approval

Certificate	NMFT.E323771

UL data

SCCR	5 kA (20 A RK5 (standard fault) fuse)

Standards and regulations

Standards/regulations

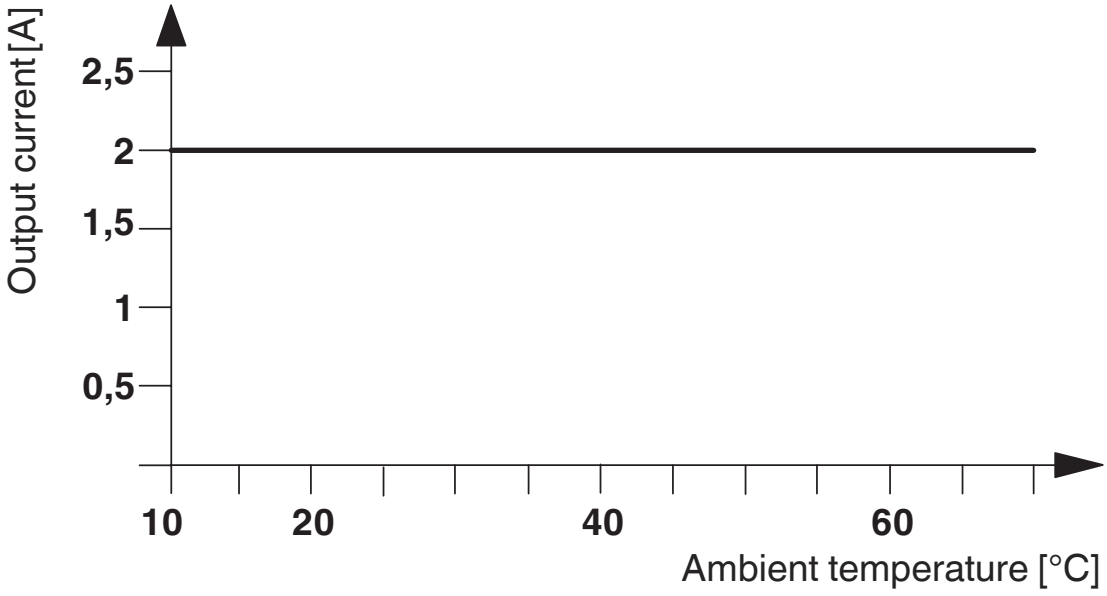
Standards/regulations	DIN EN 50178
	EN 60947

Mounting

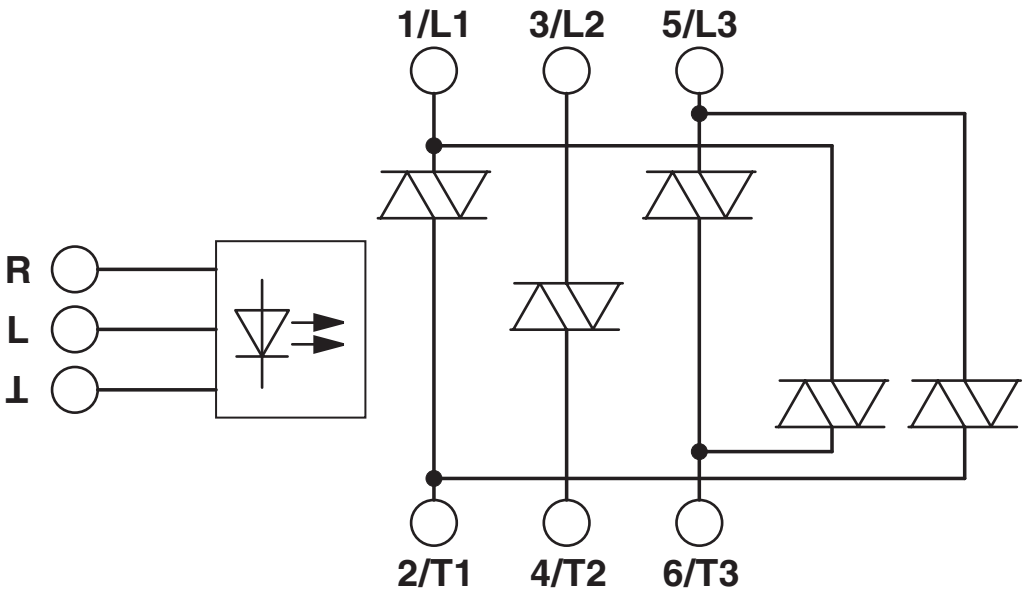
Mounting type	DIN rail mounting
Assembly note	can be aligned with spacing = 20 mm
Mounting position	Vertical (horizontal DIN rail)

Drawings

Diagram



Block diagram



Classifications

ECLASS

ECLASS-13.0	27371003
ECLASS-15.0	27371003

ETIM

ETIM 10.0	EC000066

UNSPSC

UNSPSC 21.0	39122300

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(a)-I, 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)
SCIP	e4962307-e1be-4652-9465-02ec85beb2b6

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https://www.phoenixcontact.com

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