ELR W3/ 9-500 - Reversing load relay

2964186

https://www.phoenixcontact.com/us/products/2964186

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The figure shows the version ELR W 3/9-400

Electronic reversing load relay, for direct driving of equipment in the 3-phase network, with light indicator and protection circuit, output: 110-550 V AC/3 x 9 A

Your advantages

- High switching frequency
- Noise and wear-free switching up to 500 V AC/9 A
- Protective circuit in input and output
- LEDs for forward and reverse running, operating voltage, and impermissible control

Commercial data

Item number	2964186
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C472
Product key	DK6841
GTIN	4017918099398
Weight per piece (including packing)	778.4 g
Weight per piece (excluding packing)	662.22 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

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

Electrical properties

Number of phases	3
Maximum power dissipation for nominal condition	13.5 W
Mains type	3-phase
Test voltage (Input/output)	2.5 kV (50 Hz, 60 s)
Reversing frequency	≤ 10 Hz (at cos φ = 0.5)

Input data

Control

Input name	Control input right/left
Quiescent current	40 mA
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	7.5 mA
Reaction time in normal load operation	50 ms
	50 ms
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection
Operating voltage display	Green LED
Error indication	Red LED
Status display	LED (yellow)
Switch-over frequency	< 10 Hz (at cos φ > 0.5)
Switchover time R_L/L_L (turn-on time)	20 ms

Output data

AC output

Rated operating voltage U_e	500 V AC
Operating voltage range	110 V AC ... 550 V AC
Peak offstate voltage	1200 V

Mains frequency	50 Hz
	60 Hz
Load current range	150 mA ... 9 A (see to derating)
Leakage current	typ. 7 mA
Residual voltage	typ. 1.5 V
Surge current	230 A (tp = 10 ms, at 25 °C)
Max. load value	265 A^2s
Protective circuit	RC element; RC element
	Surge protection
Surge voltage protection	> 910 V

Connection data

Control circuits

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Conductor cross-section flexible	0.2 mm² ... 4 mm²
Conductor cross-section AWG	24 ... 10
Tightening torque	0.5 Nm ... 0.6 Nm

Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Conductor cross-section flexible	0.2 mm² ... 4 mm²
Conductor cross-section AWG	24 ... 10
Tightening torque	0.5 Nm ... 0.6 Nm

Dimensions

Width	62 mm
Height	84 mm
Depth	110 mm

Material specifications

Color	green (RAL 6021)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	EN 50178

EMC regulations

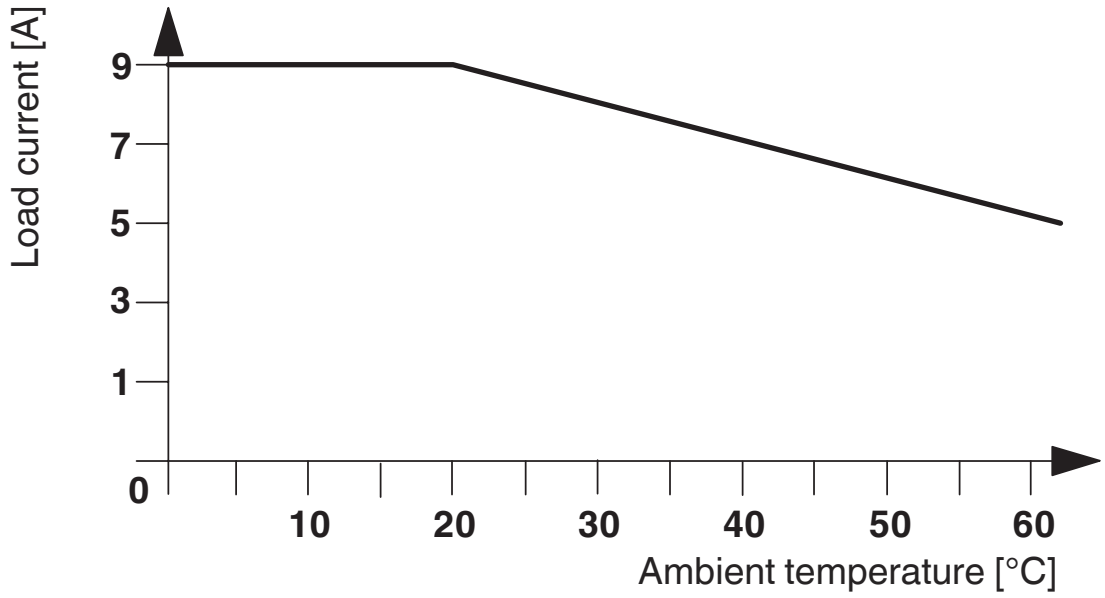
Standards/regulations	EN 61000-6-2
	EN 61000-6-4

Mounting

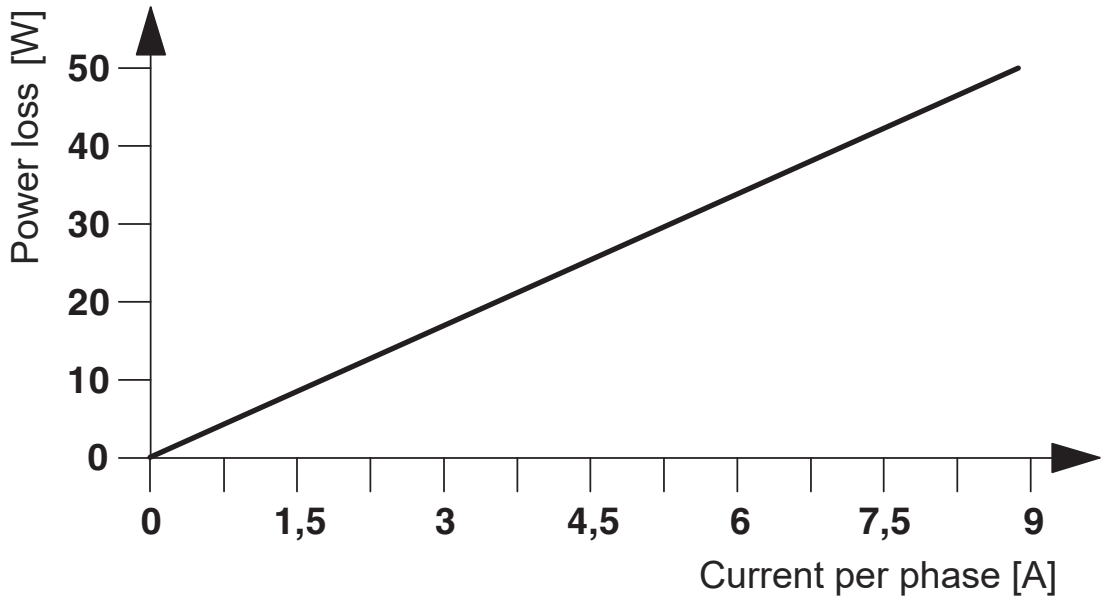
Mounting type	DIN rail mounting
Assembly note	can be aligned with spacing > 20 mm
Mounting position	Vertical (horizontal DIN rail)

Drawings

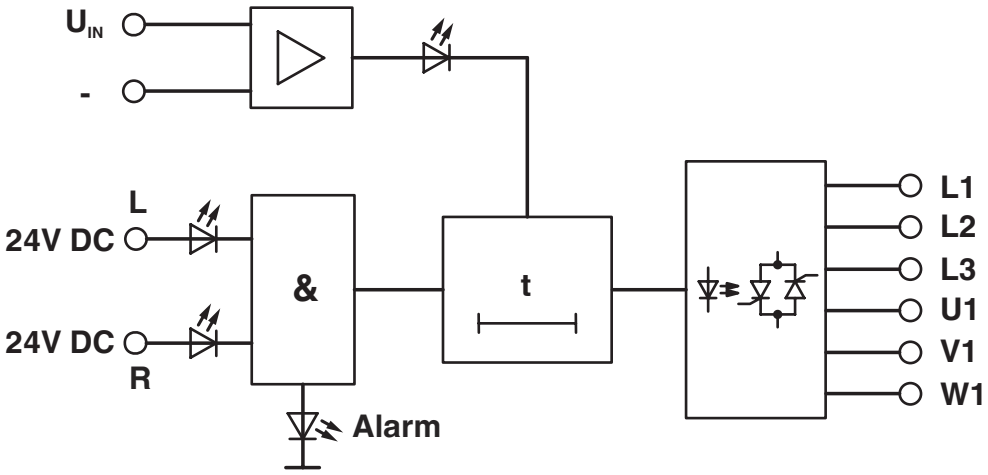
Diagram



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	8e03b027-f4a9-4108-8486-0785cf68b14e

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