

# ELR W3/ 9-500 - Reversing load relay



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

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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	CK7222
Catalog page	Page 190 (IF-2011)
GTIN	4017918099398
Weight per piece (including packing)	778.5 g
Weight per piece (excluding packing)	662.22 g
Customs tariff number	85364900
Country of origin	DE

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## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### 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	$\leq 10$ Hz (at $\cos \varphi = 0.5$ )

### 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	Yellow LED
Switch-over frequency	$< 10$ Hz (at $\cos \varphi > 0.5$ )
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

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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 <sup>2</sup> s
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 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 10

### Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 10

## Dimensions

Width	62 mm
Height	84 mm
Depth	110 mm

## Material specifications

Color	green (RAL 6021)
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## 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

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Standards/regulations	EN 50178
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EMC regulations

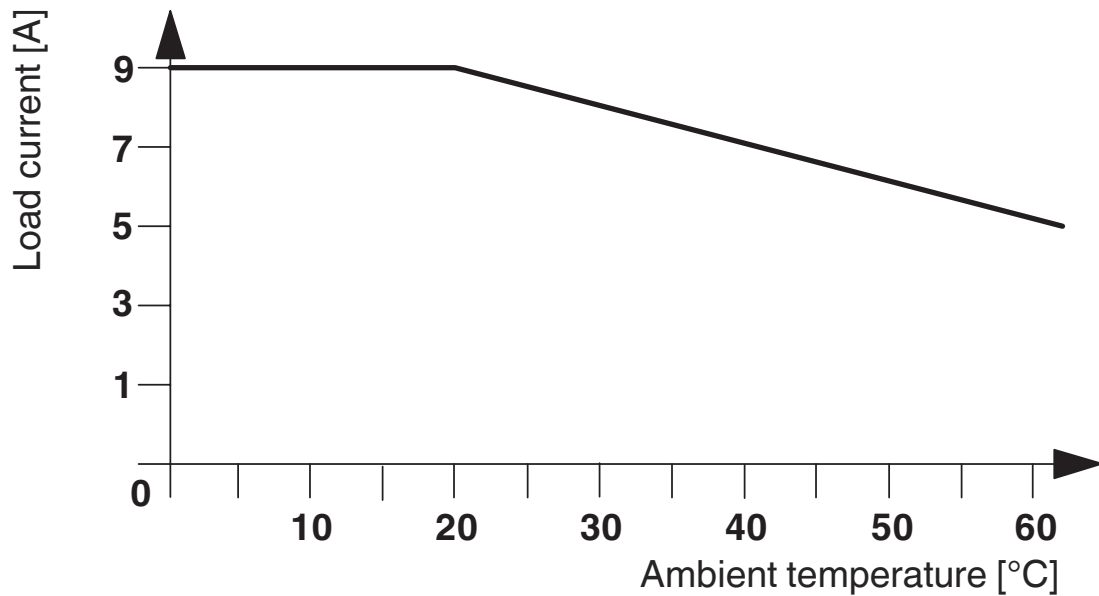
Standards/regulations	EN 61000-6-2
	EN 61000-6-4

Mounting

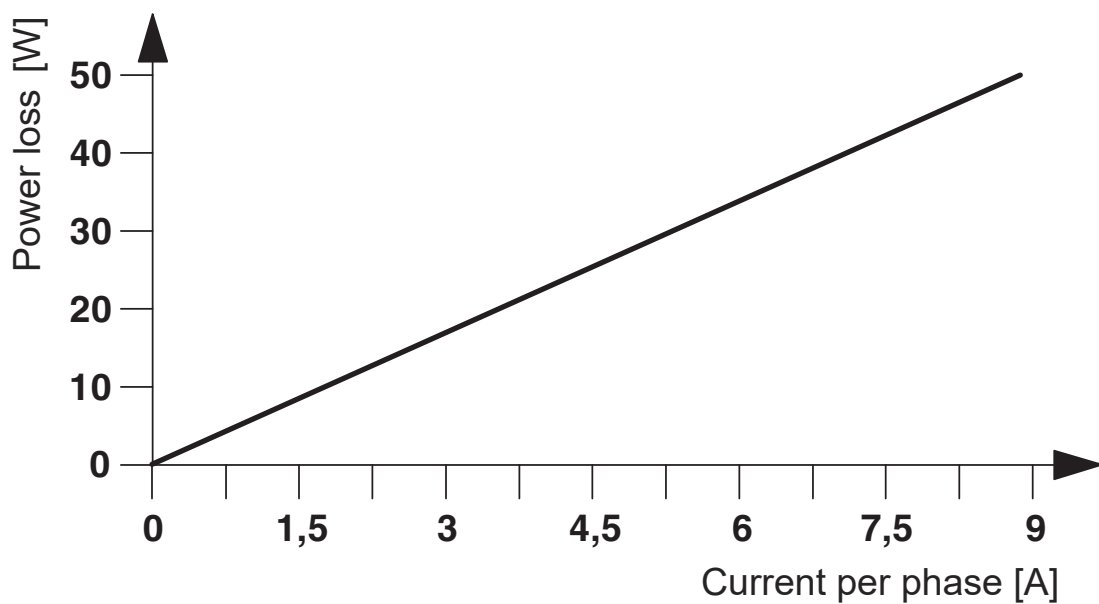
Mounting type	DIN rail mounting
Assembly note	Can be aligned with > 20 mm spacing
Mounting position	Vertical (horizontal DIN rail)

## Drawings

Diagram



Diagram

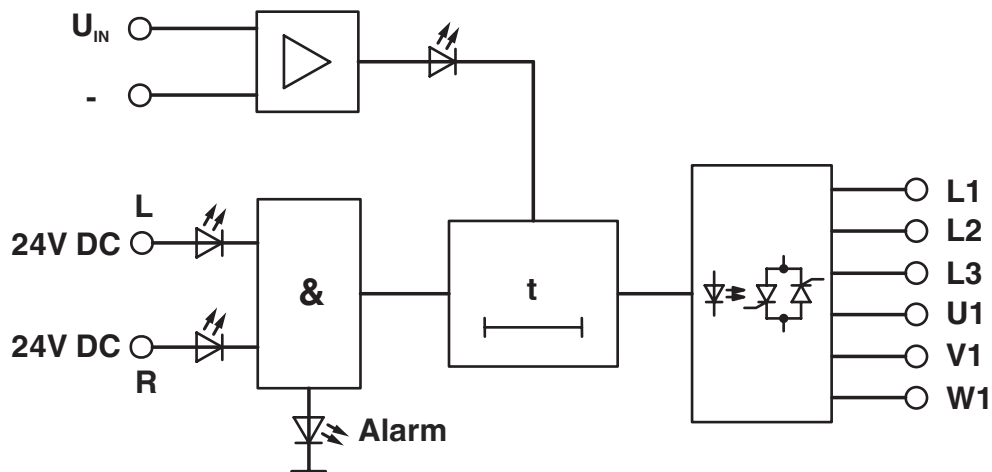


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Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2964186>



**EAC**

Approval ID: TR\_TS\_D\_00573\_c

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## Classifications

### ECLASS

ECLASS-11.0	27371003
ECLASS-12.0	27371003
ECLASS-13.0	27371003

### ETIM

ETIM 9.0	EC000066
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### UNSPSC

UNSPSC 21.0	39122300
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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)
SCIP	8e03b027-f4a9-4108-8486-0785cf68b14e

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