

# Reversing load relay - ELR W3/ 9-500 - 2964186

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



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

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

## Product Features

- 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



## Key commercial data

package_quantity	1
GTIN	4017918099398

## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

### Dimensions

Width	62 mm
Height	84 mm
Depth	110 mm

### Ambient conditions

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

### Input data

Input name	Device supply
Nominal supply voltage	24 V DC
Quiescent current	40 mA
Protective circuit	Protection against polarity reversal Polarity protection diode

# Reversing load relay - ELR W3/ 9-500 - 2964186

## Technical data

### Input data

Protective circuit	Surge protection
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED
Input name	Control input right/left
Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.25
Typical input current at $U_N$	7.5 mA
Switching threshold "0" signal in reference to $U_N$	> 0.8
Switching threshold "1" signal in reference to $U_N$	< 0.4
Reaction time in normal load operation	50 ms
Switch-over frequency	< 10 Hz (At $\cos \varphi > 0.5$ )
Maximum reversing frequency	10 Hz
Switchover time $R_L/L_L$ (turn-on time)	20 ms

### Output data

Output name	AC output
Nominal output voltage	500 V AC
Nominal output voltage range	110 V AC ... 550 V AC
Periodic peak reverse voltage	1200 V
Mains frequency	50 Hz
Mains frequency	60 Hz
Load current	9 A (see derating curve)
Leakage current	typ. 7 mA
Residual voltage	typ. 1.5 V
Surge current	230 A ( $t_p = 10$ ms, at 25 °C)
Max. load value	265 A <sup>2</sup> s
Type of protection	RC element
Protective circuit/component	RC element
Type of protection	Surge protection
Surge voltage protection	> 910 V

### Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	4 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	10
Screw thread	M3

# Reversing load relay - ELR W3/ 9-500 - 2964186

## Technical data

### General

<b>Test voltage input/output</b>	2.5 kV
<b>Mounting position</b>	Vertical (horizontal DIN rail)
<b>Assembly instructions</b>	Can be aligned with > 20 mm spacing
<b>Operating mode</b>	100% operating factor
<b>Designation</b>	Air and creepage distances between the power circuits
<b>Standards/regulations</b>	EN 50178
<b>Designation</b>	Power station requirements
<b>Designation</b>	EMC regulations
<b>Standards/regulations</b>	EN 61000-6-2
<b>Standards/regulations</b>	EN 61000-6-4

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27371102
<b>eCl@ss 4.1</b>	27371102
<b>eCl@ss 5.0</b>	27371601
<b>eCl@ss 5.1</b>	27371601
<b>eCl@ss 6.0</b>	27371601
<b>eCl@ss 7.0</b>	27371601
<b>eCl@ss 8.0</b>	27371601

### ETIM

<b>ETIM 2.0</b>	EC000066
<b>ETIM 3.0</b>	EC000066
<b>ETIM 4.0</b>	EC000066
<b>ETIM 5.0</b>	EC002055

### UNSPSC

<b>UNSPSC 6.01</b>	30211915
<b>UNSPSC 7.0901</b>	39121514
<b>UNSPSC 11</b>	39121514
<b>UNSPSC 12.01</b>	39121514
<b>UNSPSC 13.2</b>	39121514

## approvals

GOST /

Approval details

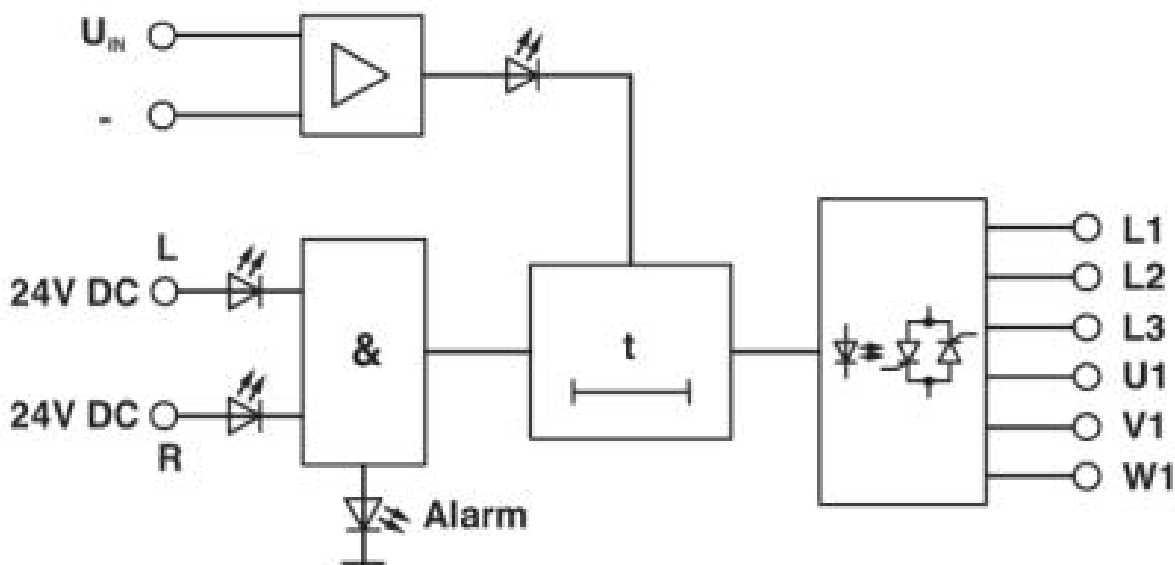
# Reversing load relay - ELR W3/ 9-500 - 2964186

approvals



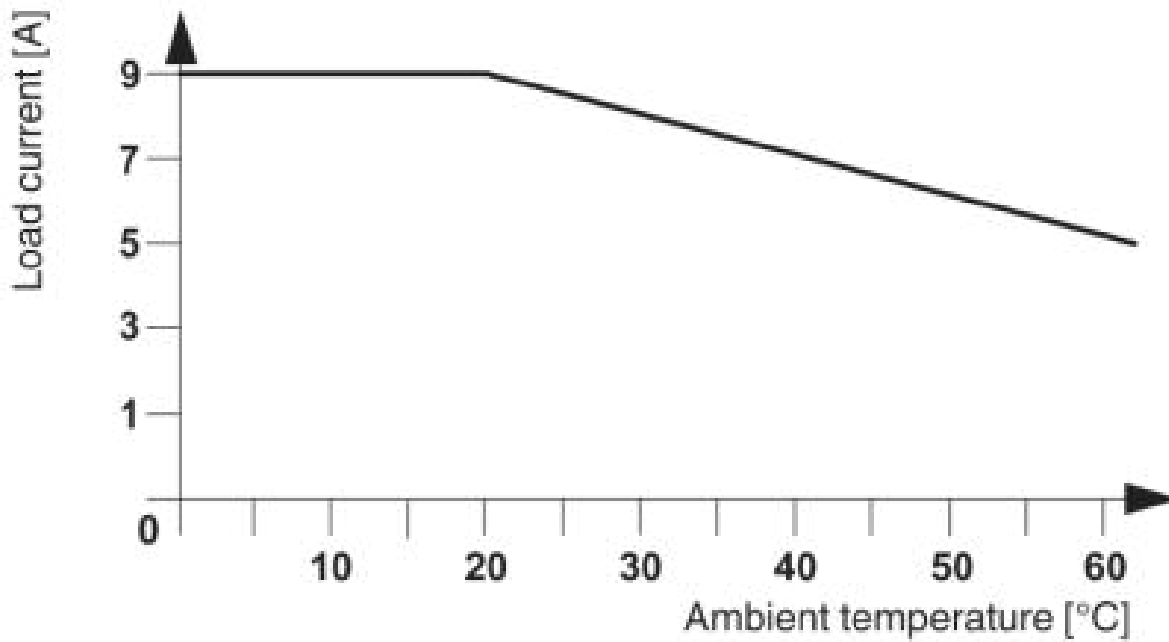
## Drawings

Block diagram



# Reversing load relay - ELR W3/ 9-500 - 2964186

Diagram



Diagram

