

# EMG 45-ELR3/1,5 - Load relay



2942739

<https://www.phoenixcontact.com/us/products/2942739>

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Electronic load relay, for direct driving of equipment in the 3-phase network, with light indicator and protection circuit, output: 320 V AC .... 440 V AC/3x 1.5 A

## Your advantages

- Wear-free
- High switching frequency
- Protective circuit in input and output

## Commercial data

Item number	2942739
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C472
Product key	DK7211
GTIN	4017918080822
Weight per piece (including packing)	161 g
Weight per piece (excluding packing)	144.848 g
Customs tariff number	85364900
Country of origin	DE

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## Technical data

### Product properties

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

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation
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### Electrical properties

Number of phases	3
Maximum power dissipation for nominal condition	6 W
Mains type	3-phase
Test voltage (Input/output)	3.5 kV (50 Hz, 60 s)

### Input data

#### Control

Input name	Control input right/left
Typical input current at $U_N$	20 mA
Rated actuating voltage $U_C$	24 V DC
Triggering voltage range	19.2 V DC ... 28.8 V DC
Voltage range with reference to $U_C$	0.8 ... 1.2 0.8 ... 1.2
Reaction time in normal load operation	20 ms 20 ms
Protective circuit	Reverse polarity protection; Series polarity protection diode Surge protection
Status display	LED (yellow)
Transmission frequency	1 Hz (with ohmic load) 1 Hz (at $\cos \varphi = 0.5$ )

### Output data

#### AC output

Rated operating voltage $U_e$	400 V AC
Operating voltage range	320 V AC ... 440 V AC
Peak offstate voltage	600 V (Load relay is not suitable for the construction of reversing circuits.)
Mains frequency	50 Hz 60 Hz
Continuous load current	max. 1.5 A (see derating curve)
Load current range	50 mA ... 1.5 A (see to derating)
Leakage current	typ. 7 mA
Residual voltage	typ. 1 V

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Surge current	100 A (tp = 10 ms, at 25 °C)
Protective circuit	RC element; RC element
	Surge protection

## 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> ... 4 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

### Load circuit

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Conductor cross-section AWG	24 ... 12

## Dimensions

Width	45 mm
Height	75 mm
Depth	82.5 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 ... 55 °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
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### EMC regulations

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

## Mounting

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

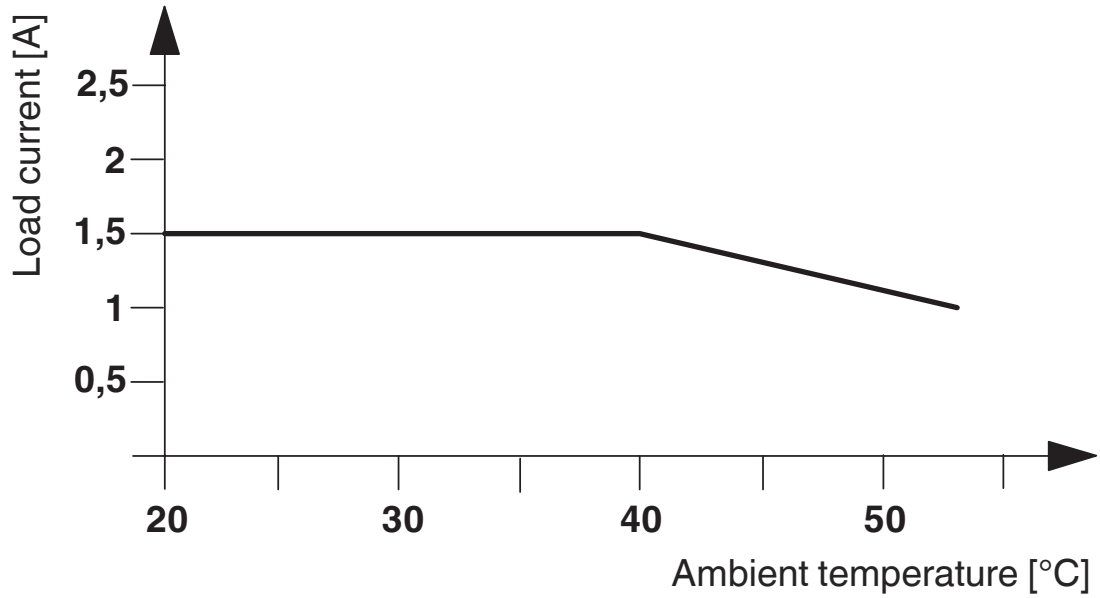
# EMG 45-ELR3/1,5 - Load relay

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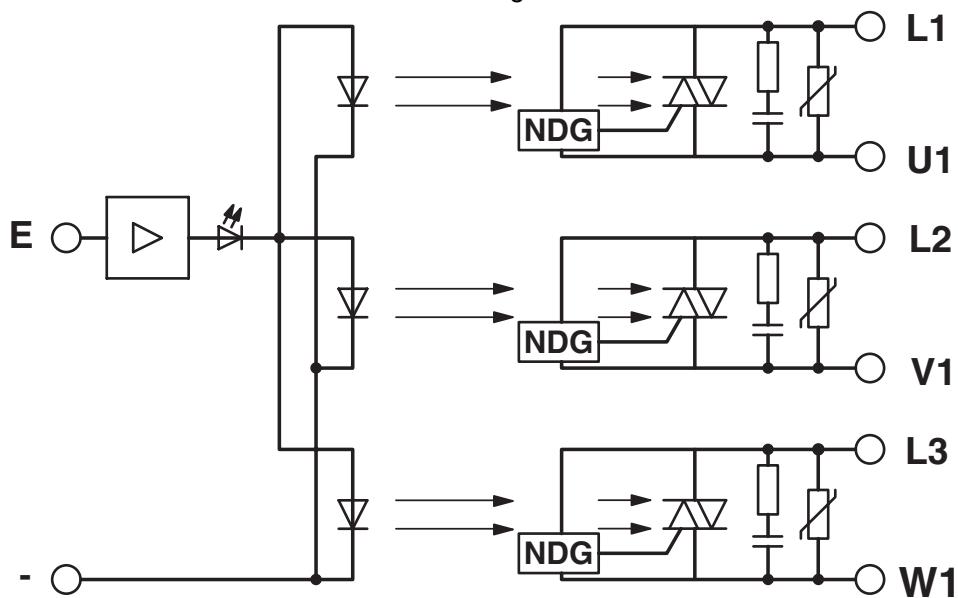
<https://www.phoenixcontact.com/us/products/2942739>

## Drawings

Diagram



Block diagram



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## Environmental product compliance

### 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.
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### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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