

ELR W3/ 9-500 MM EX - Reversing load relay



2963695

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Electronic reversing load relay with motor management, for direct driving of equipment in the 3-phase network, output: 110-550 V AC/3 x 8 A

Your advantages

- Optional connection to ELR-PB-GATEWAY
- Special ELR-MM EX devices suitable for use in the chemical and petrochemical industries. A corresponding Ex-type examination certificate has been issued.
- Continuous status monitoring
- Real power consumed calculated every 6.6 ms
- Freely parameterizable signaling and switching thresholds for underload/overload detection
- Display of apparent, real, and reactive power, currents, voltages, phase angle, cycle counter, and operating hours counter
- Switching of actuating/variable-speed drives, pumps, and tools with function, dirt or wear monitoring

Commercial data

Item number	2963695
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DK7222
GTIN	4017918953102
Weight per piece (including packing)	878.7 g
Weight per piece (excluding packing)	752.92 g
Customs tariff number	85364900
Country of origin	DE

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Technical data

Product properties

Product type	Electronic motor manager
Operating mode	100% operating factor

Electrical properties

Number of phases	3
Mains type	3-phase
Test voltage input/output	2.5 kV
Reversing frequency	≤ 2.5 Hz (at $\cos \varphi = 0.5$)

Supply

Input name	Device supply
Nominal supply voltage	24 V DC
Supply voltage range with reference to U_{VN}	0.8 ... 1.2
Quiescent current	80 mA
Protective circuit	Reverse polarity protection; Series polarity protection diode Surge protection
Operating voltage display	Green LED
Error indication	Red LED
Status display	LED (yellow)

Input data

Control

Input name	Control input right/left
Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.8 ... 1.2 0.8 ... 1.2
Typical input current at U_N	7 mA
Reaction time in normal load operation	< 35 ms
Typical response time	< 25 ms
Typical turn-off time	< 25 ms
Reaction time in normal load operation	< 35 ms
Switch-over frequency	< 2.5 Hz (at $\cos \varphi = 0.5$)

Current measurement

Basic accuracy	± 2 % (Of end value, typ. ± 1 %)
Current range	0.25 A ... 8 A
Measuring via	Current transformer for any conductor current

Output data

AC output

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Nominal output voltage	500 V AC
Nominal output voltage range	110 V AC ... 550 V AC
Peak offstate voltage	1500 V
Mains frequency	50 Hz 60 Hz
Load current	8 A (see derating curve)
Load current range	150 mA
Leakage current	typ. 7 mA
Residual voltage	typ. 1.4 V
Surge current	360 A (tp = 10 ms, at 25 °C)
Max. load value	645 A ² s
Protective circuit	RC element; RC element Surge protection
Surge voltage protection	> 880 V
Nominal output voltage	$U_{VN} - 1 V$
Continuous load current	max. 50 mA

Connection data

Control circuits

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

Interfaces

Data

Interface	RS-232
Transmission speed	4800 bit

Dimensions

Width	62 mm
Height	94 mm
Depth	122 mm

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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

Standards/regulations	DIN EN 50178
	safe isolation

Power station requirements

Standards/regulations	DWR 1300/ZXX01/DD/7080.8d
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EMC regulations

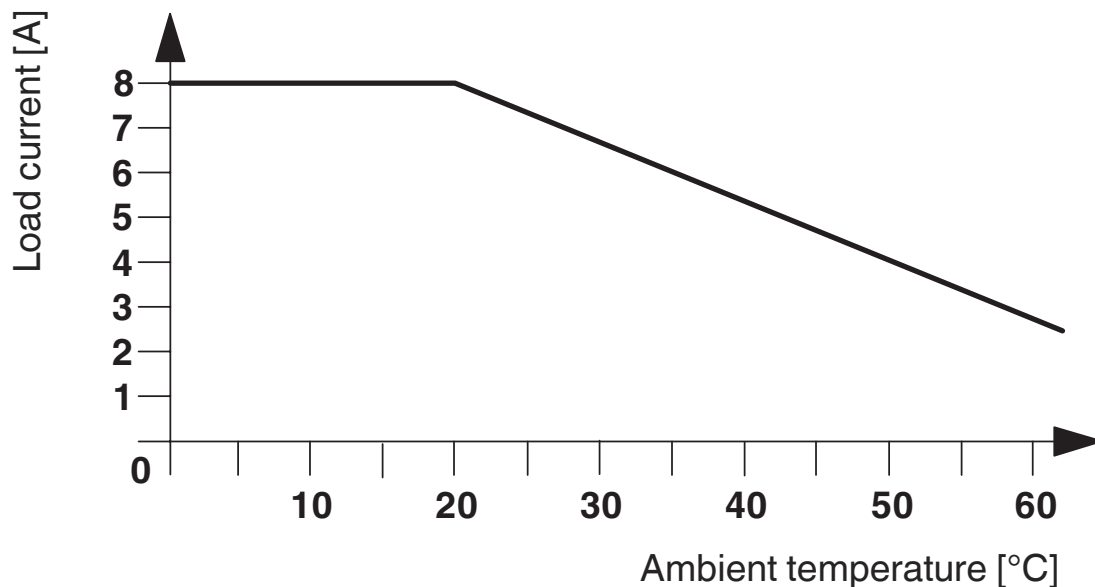
Standards/regulations	EN 61000-6-2
	EN 61000-6-4

Mounting

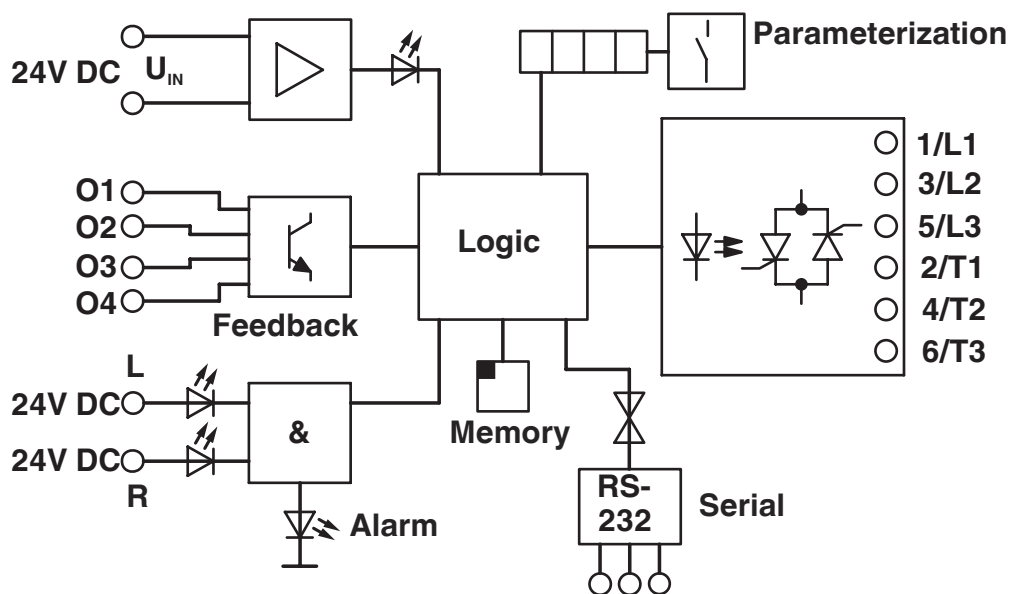
Assembly note	can be aligned with spacing > 20 mm
Mounting position	Vertical (horizontal DIN rail)

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.

EU REACH SVHC

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