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Extract from the online
catalog

ELR W3- 24DC/500AC- 9I

Order No.: 2297057



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2297057>

"4 in 1" three-phase solid-state reversing contactor with 24 V DC input,
9 A output current and adjustable overload switching



Commercial data

GTIN (EAN)	
sales group	G421
Pack	1 pcs.
Customs tariff	85371099
Catalog page information	Page 164 (IF-2009)

Product notes

WEEE/RoHS-compliant since:
06/21/2007



<http://www.download.phoenixcontact.com>
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

Input data

Rated control supply voltage U_s	24 V DC
Rated control supply voltage range with reference to U_s	0.8 ... 1.25
Rated control supply current I_s	35 mA

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Rated actuating voltage U_c	24 V DC
Rated actuating voltage range with reference to U_c	0.8 ... 1.25
Rated actuating current I_c	3 mA
Switching threshold "0" signal, voltage	9.6 V
Switching threshold "1" signal voltage	19.2 V
Protective circuit	Protection against polarity reversal Parallel polarity protection diode
	Surge protection
Typical response time	< 35 ms
Typical turn-off time	< 40 ms
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED

Output data, load relay

Output name	AC output
Nominal output voltage	500 V AC
Nominal output voltage range	48 V AC ... 550 V AC
Load current	max. 9 A (see derating curve)
Leakage current	0 mA
Residual voltage	< 0.5 V
Surge current	100 A ($t = 10$ ms)
Type of protection	Surge protection
Output name	Acknowledge output
Note	Confirmation 01: Floating PDT contact
Nominal output voltage	max. 253 V AC 0% ... 100% (300 V DC)
Residual voltage	< 0.5 V

Output data, signaling contact

Measuring via	Current transformer for line current on L1 and L3
Current range	1 A ... 45 A

Connection data

Type of connection	Screw connection
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.14 mm ²

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Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

General data

Width	22.5 mm
Height	99 mm
Depth	114.5 mm
Test voltage input/output	4 kV _{rms}
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Mounting position	Vertical (horizontal DIN rail)
Assembly instructions	Can be aligned with spacing = 20 mm
Operating mode	100% operating factor
Degree of protection	IP20
Name	Standards/regulations
Standards/regulations	DIN EN 50178
	EN 60947
Name	Power station requirements
Standards/regulations	DWR 1300 / ZXX01/DD/7080.8d
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated surge voltage / insulation	6 kV/safe isolation
Rated insulation voltage	500 V
Pollution degree	2
Surge voltage category	III
Category in acc. with EN 954-1	3

Certificates / Approvals


Certification

BV, CB, CUL Listed, GL, LR, UL Listed

Certification Ex:

PTB

Certifications applied for:

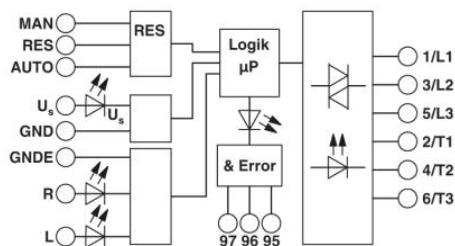
UL-EX LIS / CUL-EX LIS

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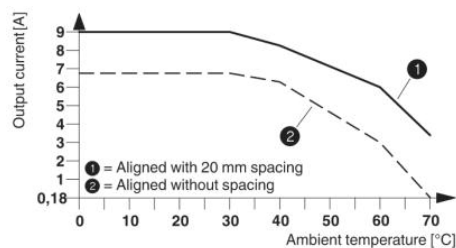
<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2297057>

Diagrams/Drawings

Block diagram



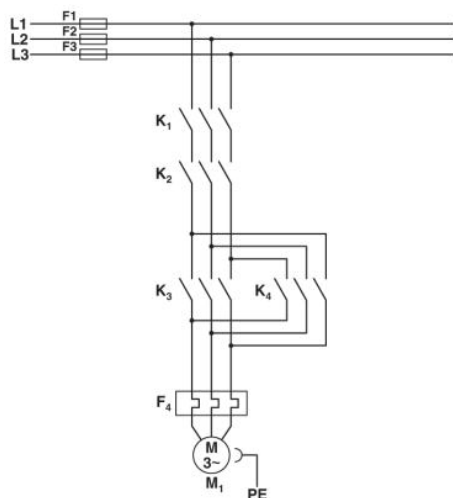
Diagram



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Circuit diagram



Conventional structure

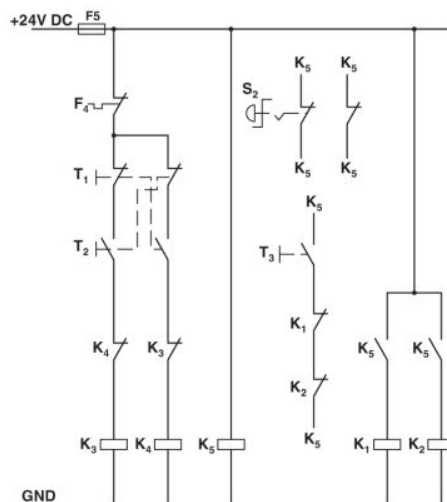
Main current path for reversing contactor according to category 3

K1 + K2 = Emergency stop contactor

K3 = Left contactor

K4 = Right contactor

F4 = Motor protection relay



Conventional structure

Control current path for reversing contactor according to category 3

K1 + K2 = Emergency stop contactor

K3 = Left contactor

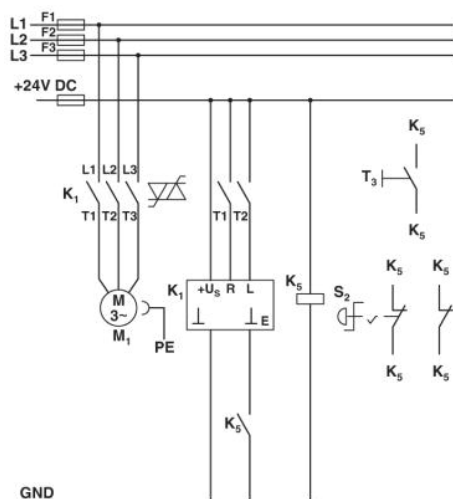
K4 = Right contactor

K5 = PSR SCP-24DC.../safety relay

T1 = Left, T2 = Right, T3 = Reset

S2 = Emergency stop

F4 = Motor protection relay



Structure with CONTACTRON

Main and control current path for "4 in 1" hybrid motor starter with reversing function according to category 3

K1 = "4 in 1" hybrid motor starter with reversing function

K5 = PSR SCP-24DC.../safety relay

T1 = Left, T2 = Right, T3 = Reset

S2 = Emergency stop

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