

ELR W3-230AC/500AC- 2I

Order No.: 2297044


The figure shows 2297031 ELR W3- 24DC/500AC-2I



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2297044>

"4 in 1" three-phase solid-state reversing contactor with 230 V AC input, 2 A output current and adjustable overload shutdown



| Commercial data | |
|--------------------------|--|
| GTIN (EAN) |  4 046356 170574 |
| sales group | G420 |
| Pack | 1 pcs. |
| Customs tariff | 85371099 |
| Catalog page information | Page 164 (IF-2009) |

Product notes

WEEE/RoHS-compliant since:
10/29/2007



<http://www.download.phoenixcontact.com>
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| Technical data | |
|------------------------------------|----------|
| Input data | |
| Mains frequency | 40 Hz |
| | 100 Hz |
| Rated control supply voltage U_s | 230 V AC |

| | |
|--|------------------|
| Rated control supply voltage range with reference to U_s | 0.4 ... 1.1 |
| Rated control supply current I_s | 3.5 mA |
| Rated actuating voltage U_c | 230 V AC |
| Rated actuating voltage range with reference to U_c | 0.4 ... 1.1 |
| Rated actuating current I_c | 7 mA |
| Switching threshold "0" signal, voltage | 44 V AC |
| Switching threshold "1" signal voltage | 85 V AC |
| Protective circuit | Surge protection |
| Typical response time | < 35 ms |
| Typical turn-off time | < 80 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. 2.4 A (see derating curve) |
| Leakage current | 0 mA |
| Residual voltage | < 0.3 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) |
| Continuous load current | 2 A |
| Residual voltage | < 0.5 V |

Output data, signaling contact

| | |
|---------------|---|
| Measuring via | Current transformer for line current on L1 and L3 |
|---------------|---|

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 |
| 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 | 4 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:

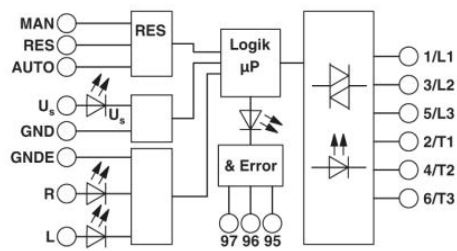
PTB

Certifications applied for:

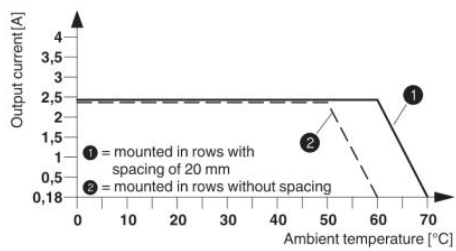
UL-EX LIS / CUL-EX LIS

Diagrams/Drawings

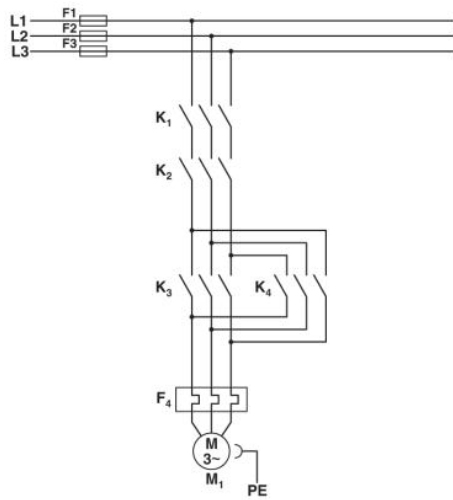
Block diagram



Diagram

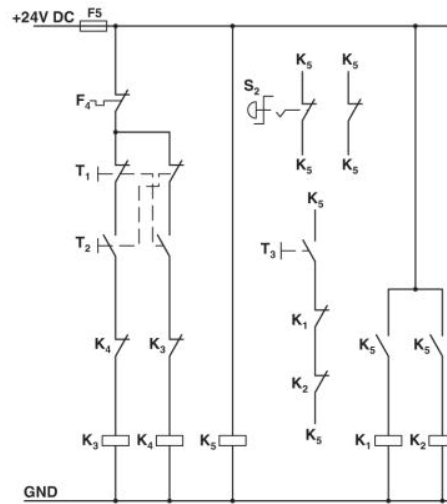


Circuit diagram



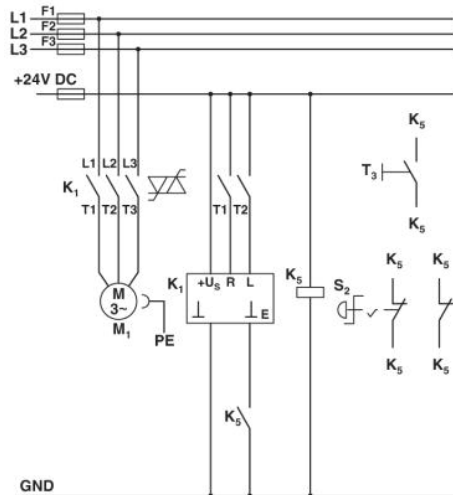
Conventional structure

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

Address

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