

# ELR H5-I-SC-230AC/500AC-2

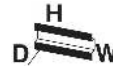
Order No.: 2900575

The figure shows the 9 A version



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2900575>

"3 in 1" hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 230 V AC input, 2.4 A output current, and adjustable overload shutdown.



| Commercial data |                 |
|-----------------|-----------------|
| GTIN (EAN)      | 4 046356 528177 |
| sales group     | G420            |
| Pack            | 1 pcs.          |
| Customs tariff  | 85364900        |

### Product notes

WEEE/RoHS-compliant since:  
03/01/2010



<http://www.download.phoenixcontact.com>  
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| Technical data                     |          |
|------------------------------------|----------|
| <b>Input data</b>                  |          |
| 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                                   |

**Output data, signaling contact**

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

**Connection data**

|                                    |                      |
|------------------------------------|----------------------|
| Connection method                  | Screw connection     |
| Conductor cross section solid min. | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max. | 2.5 mm <sup>2</sup>  |

|  |                      |
|--|----------------------|
| Conductor cross section stranded min.  | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>  |
| 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 <sub>rms</sub>                                   |
| 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   |

**Certificates / Approvals**

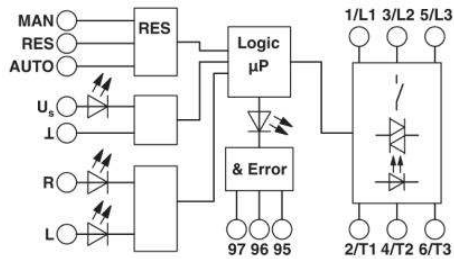


Certification CB, CUL Listed, UL Listed

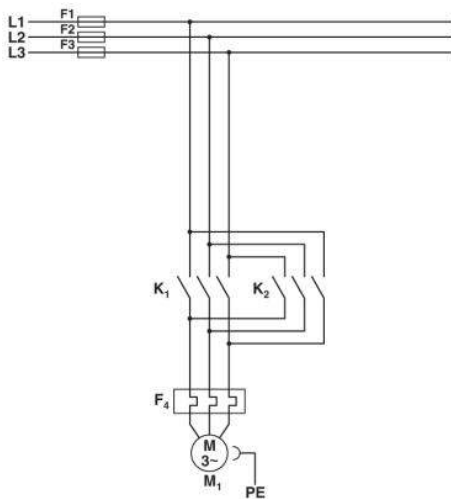
Certification Ex: PTB

**Diagrams/Drawings**

Block diagram

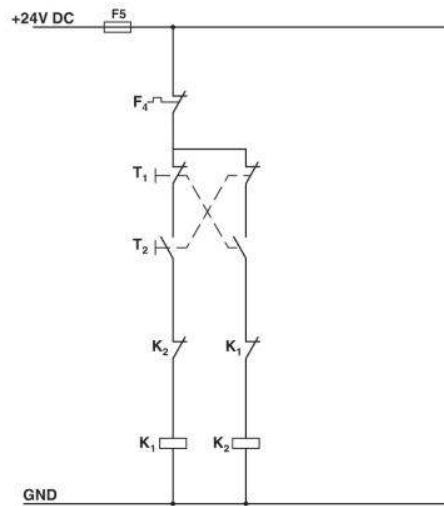


Circuit diagram



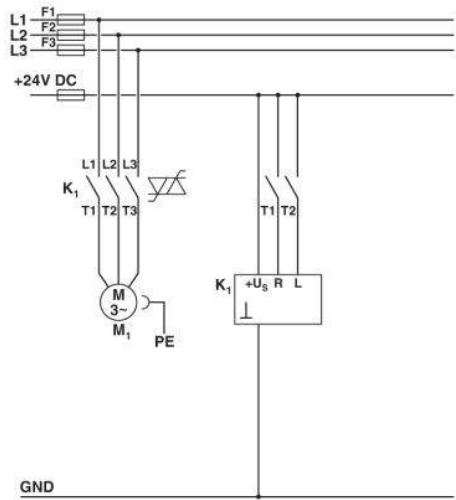
**Conventional structure**

Main current path for contactor according to category 3  
 K1 = Left contactor  
 K2 = Right contactor  
 F4 = Motor protection relay



**Conventional structure**

Control current path for contactor according to category 3  
 K1 = Left contactor  
 K2 = Right contactor  
 T1 = Left, T2 = Right, T3 = Reset  
 F4 = Motor protection relay



**Structure with CONTACTRON**

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

K1 = "3 in 1" hybrid motor starter

T1 = Right, T2 = Left, T3 = Reset

**Address**

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