

# ELR H5-I-SC- 24DC/500AC-2 - Hybrid motor starter



2900574

<https://www.phoenixcontact.com/us/products/2900574>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Hybrid motor starter for reversing 3~ AC motors up to 500 V AC and 2.4 A output current, with 24 V DC control voltage, adjustable overload shutdown, and screw connection.

## Your advantages

- 22.5 mm wide
- Space saving
- Long service life
- Reduction in wiring
- 3-phase loop bridges
- Adjustable current for bimetal function
- Low-wear switching

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 2900574            |
| Packing unit                         | 1 pc               |
| Sales key                            | C470               |
| Product key                          | CK7422             |
| Catalog page                         | Page 29 (C-5-2019) |
| GTIN                                 | 4046356527866      |
| Weight per piece (including packing) | 295.4 g            |
| Weight per piece (excluding packing) | 218.11 g           |
| Customs tariff number                | 85371098           |
| Country of origin                    | DE                 |

# ELR H5-I-SC- 24DC/500AC-2 - Hybrid motor starter



2900574

<https://www.phoenixcontact.com/us/products/2900574>

## Technical data

### Product properties

|                |                       |
|----------------|-----------------------|
| Product type   | Hybrid motor starters |
| Product family | CONTACTRON            |
| Operating mode | 100% operating factor |

### Electrical properties

|                                                 |                         |
|-------------------------------------------------|-------------------------|
| Number of phases                                | 3                       |
| Motor starter type                              | Reversing starter       |
| Maximum power dissipation for nominal condition | 2.2 W                   |
| Switching frequency                             | ≤ 2 Hz (Load-dependent) |
| Maximum power dissipation                       | 3.3 W                   |
| Minimum power dissipation                       | 1.1 W                   |
| Coordination type                               | 1                       |

### Supply

|                                            |                             |
|--------------------------------------------|-----------------------------|
| Rated control circuit supply voltage $U_S$ | 24 V DC                     |
| Control supply voltage range               | 19.2 V DC ... 30 V DC       |
| Rated control supply current $I_S$         | 40 mA                       |
| Protective circuit                         | Surge protection            |
|                                            | Reverse polarity protection |

### Insulation characteristics

|                                                                                                                            |                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Rated insulation voltage                                                                                                   | 500 V                                                                                            |
| Rated surge voltage                                                                                                        | 6 kV                                                                                             |
| Overvoltage category                                                                                                       | III                                                                                              |
| Degree of pollution                                                                                                        | 2                                                                                                |
| Insulation characteristics between the control input and control supply voltage, and auxiliary circuit to the main circuit | Safe isolation (IEC 60947-1) at operating voltage ≤ 300 V AC (e. g., 230/400 V AC, 277/480 V AC) |
|                                                                                                                            | Basic insulation (IEC 60947-1) at operating voltage 300 V AC ... 500 V AC                        |
| Isolation characteristics between the control input and control supply voltage to auxiliary circuit                        | Safe isolation (IEC 60947-1) in the auxiliary circuit ≤ 300 V AC                                 |

## Input data

### Control

|                               |                             |
|-------------------------------|-----------------------------|
| Input name                    | Control input right/left    |
| Rated actuating voltage $U_C$ | 24 V DC                     |
| Triggering voltage range      | 19.2 V DC ... 30 V DC       |
| Rated actuating current $I_C$ | 5 mA (Input type 1)         |
| Switching threshold           | 9.6 V ("0" signal)          |
|                               | 19.2 V ("1" signal)         |
| Typical turn-off time         | < 30 ms                     |
| Protective circuit            | Reverse polarity protection |

# ELR H5-I-SC- 24DC/500AC-2 - Hybrid motor starter



2900574

<https://www.phoenixcontact.com/us/products/2900574>

## Output data

### AC output

|                                                   |                                    |
|---------------------------------------------------|------------------------------------|
| Rated operating voltage $U_e$                     | 500 V AC                           |
| Operating voltage range                           | 42 V AC ... 550 V AC               |
| Rated operating current $I_e$                     | 2.4 A (AC-51)                      |
|                                                   | 2.4 A (AC-53a)                     |
| Mains frequency                                   | 50/60 Hz                           |
| Load current range                                | 180 mA ... 2.4 A (see to derating) |
| Trigger characteristic in acc. with IEC 60947-4-2 | Class 10A                          |
| Cooling time                                      | 20 min. (for auto reset)           |
| Leakage current                                   | 0 mA                               |
| Protective circuit                                | Surge protection                   |

### Acknowledge output

|                                                     |                                                            |
|-----------------------------------------------------|------------------------------------------------------------|
| Note                                                | Confirmation: floating change-over contact, signal contact |
| Contact switching type                              | 1 changeover contact                                       |
| Switching capacity in accordance with IEC 60947-5-1 | 3 A (230 V, AC15)                                          |
|                                                     | 2 A (24 V, DC13)                                           |

## 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> ... 2.5 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 ... 14                                         |
| Tightening torque                | 0.5 Nm ... 0.6 Nm                                 |
|                                  | 5 lb <sub>F</sub> -in. ... 7 lb <sub>F</sub> -in. |

### Load circuit

|                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| Connection method                | Screw connection                                  |
| Stripping length                 | 8 mm                                              |
| Screw thread                     | M3                                                |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 2.5 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 ... 14                                         |
| Tightening torque                | 0.5 Nm ... 0.6 Nm                                 |
|                                  | 5 lb <sub>F</sub> -in. ... 7 lb <sub>F</sub> -in. |

## Signaling

|                           |            |
|---------------------------|------------|
| Status display            | Yellow LED |
| Operating voltage display | Green LED  |

# ELR H5-I-SC- 24DC/500AC-2 - Hybrid motor starter



2900574

<https://www.phoenixcontact.com/us/products/2900574>

|                  |         |
|------------------|---------|
| Error indication | Red LED |
|------------------|---------|

## Dimensions

|        |         |
|--------|---------|
| Width  | 22.5 mm |
| Height | 107 mm  |
| Depth  | 114 mm  |

## Material specifications

|                                        |              |
|----------------------------------------|--------------|
| Flammability rating according to UL 94 | V0 (Housing) |
|----------------------------------------|--------------|

## Environmental and real-life conditions

### Ambient conditions

|                                         |                                     |
|-----------------------------------------|-------------------------------------|
| Degree of protection                    | IP20                                |
| Ambient temperature (operation)         | -25 °C ... 70 °C (observe derating) |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C                    |
| Altitude                                | ≤ 2000 m                            |

## Approvals

### UKCA

|             |                |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

### UL approval

|             |              |
|-------------|--------------|
| Certificate | NLDX.E228652 |
|-------------|--------------|

### UL data

|                    |                                                                        |
|--------------------|------------------------------------------------------------------------|
| SCCR               | 100 kA (500 V AC (fuse: 30 A class CC/30 A class J (high fault)))      |
|                    | 5 kA (500 V AC (fuse: 20 A RK5 (standard fault)))                      |
| FLA                | 2.4 A (500 V AC)                                                       |
| Group installation | 20 A (class RK5, SCCR 5kA, #24 - 14 AWG max. solid and stranded)       |
|                    | 30 A (class CC or J, SCCR 100kA, #24 - 14 AWG max. solid and stranded) |
| Category code      | NLDX / NRNT                                                            |

## Standards and regulations

### Standards/regulations

|                       |               |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-1   |
|                       | IEC 60947-4-2 |

## Mounting

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| Mounting type         | DIN rail mounting                                  |
| Assembly instructions | alignable, for spacing see derating                |
| Mounting position     | vertical (horizontal DIN rail, motor output below) |

# ELR H5-I-SC- 24DC/500AC-2 - Hybrid motor starter

2900574

<https://www.phoenixcontact.com/us/products/2900574>



Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)