

ELR H3-I-PT- 24DC/500AC-9-P - Hybrid motor starter



2909561

<https://www.phoenixcontact.com/gb/products/2909561>

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 as an alternative to a conventional contactor circuit. Starts 3~ AC motors up to 9 A and offers motor protection. Possible supply and relay extension via DIN rail connector.

Product description

The modular 3-phase hybrid motor starter with direct start function and current monitoring provides the following functions: - Forward running - Motor overload protection Additional advantages are provided by using the DIN rail connector adapter (Item No. 2203861): - Power can also be supplied via the DIN rail connector by a system power supply (e. g., QUINT4-SYS...) or via the PCB connector IMC 1,5/ 5-ST-3,81, Item No. 1857919 - Optional relay module (e. g., EM-2RSC/21AU-R/L-P, Item No. 2908701) provides additional status information

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2909561 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | DK7483 |
| Product key | DK7483 |
| GTIN | 4055626406619 |
| Weight per piece (including packing) | 244.2 g |
| Weight per piece (excluding packing) | 291.5 g |
| Customs tariff number | 85371098 |
| Country of origin | DE |

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 | Direct starter |
| Switching frequency | ≤ 2 Hz (Load-dependent) |
| Switching frequency | ≤ 2 Hz (Load-dependent) |
| Maximum power dissipation | 7 W |
| Minimum power dissipation | 0.88 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 | 60 mA |
| Protective circuit | Surge protection Reverse polarity protection; Parallel polarity protection diode |

Insulation characteristics

| | |
|--|--|
| Rated insulation voltage | 550 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) |
| 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 |

Emergency tripping

| | |
|-------------------|---------|
| Operate threshold | > 60 A |
| Response time | < 0.5 s |

Input data

Control

| | |
|-------------------------------|---|
| Input name | Control input |
| Rated actuating voltage U_C | 24 V DC |
| Triggering voltage range | 19.2 V DC ... 30 V DC |
| Rated actuating current I_C | 7 mA |
| Switching threshold | 9.6 V ("0" signal) 19.2 V ("1" signal) |

| | |
|-----------------------|-----------------------------|
| Typical turn-off time | < 30 ms |
| Protective circuit | Reverse polarity protection |

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 | 9 A (AC-51) |
| | 7 A (AC-53a) |
| Mains frequency | 50/60 Hz |
| Load current range | 1.5 A ... 9 A |
| Trigger characteristic in acc. with IEC 60947-4-2 | Class 10 (≤ 3 A) |
| | Class 10A (> 3 A) |
| Cooling time | 20 min (for auto reset) |
| Leakage current | 0 mA |
| Protective circuit | Surge protection; Varistor |

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 | 2 A (24 V (DC13)) |

Connection data

Control circuits

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 14 |

Load circuit

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 14 |

Signaling

| | |
|---------------------------|--------------|
| Status display | LED (yellow) |
| Operating voltage display | Green LED |
| Error indication | Red LED |

Dimensions

| | |
|-------|---------|
| Width | 22.5 mm |
|-------|---------|

ELR H3-I-PT- 24DC/500AC-9-P - Hybrid motor starter



2909561

<https://www.phoenixcontact.com/gb/products/2909561>

| | |
|--------|----------|
| Height | 107.5 mm |
| Depth | 114 mm |

Material specifications

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

UL approval

| | |
|-------------|--------------|
| Certificate | NLDX.E228652 |
| | NRNT.E172140 |

UL data

| | |
|---------------------------------|---|
| SCCR | 100 kA (480 V AC (fuse: 30 A class CC/30 A class J (high fault))) |
| | 5 kA (480 V AC (fuse: 20 A RK5 (standard fault))) |
| FLA | 7.6 A (480 V AC) |
| Group installation | 20 A (class RK5, SCCR 5kA (480 V AC), #24 - 14 AWG max. solid and stranded) |
| | 30 A (class CC or J, SCCR 100kA (480 V AC), #24 - 14 AWG max. solid and stranded) |
| Category code | NLDX / NRNT |
| Horsepower ratings | 2 hp (208 V AC) |
| | 2 hp (230 V AC) |
| | 2 hp (240 V AC) |
| | 5 hp (480 V AC) |
| Ambient temperature (operation) | -25 °C ... 55 °C |

Standards and regulations

Standards/regulations

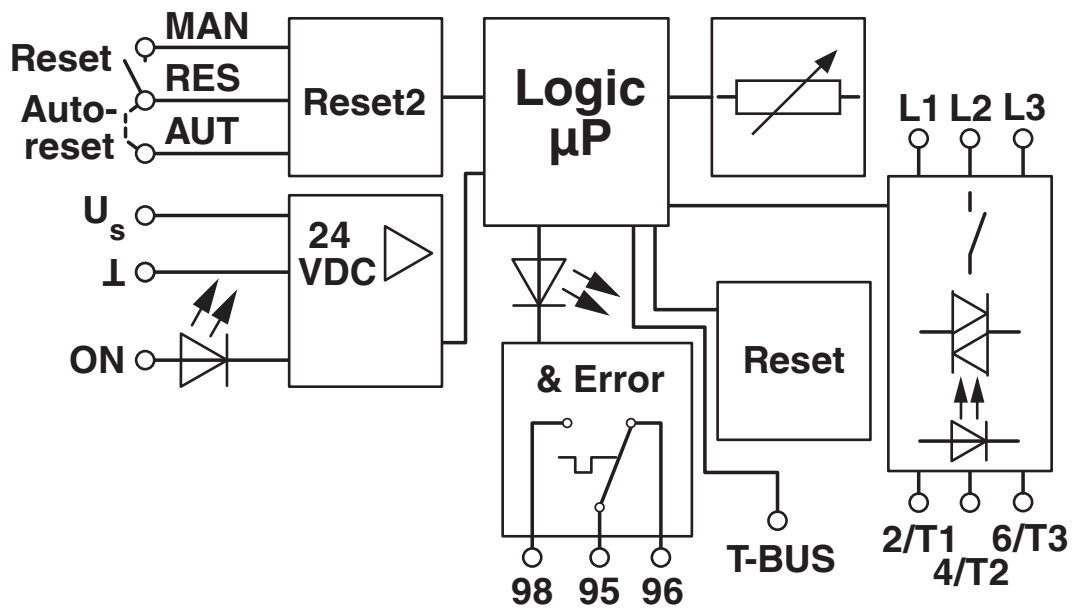
| | |
|-----------------------|--------------|
| Standards/regulations | EN 60947-1 |
| | EN 60947-4-2 |

Mounting

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

Drawings

Block diagram



2909561

<https://www.phoenixcontact.com/gb/products/2909561>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2909561>



IECEE CB Scheme

Approval ID: CB-DE1-60807-A1



EAC

Approval ID: RU*C-DE.*08.B.00520*



UL Listed

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140



cUL Listed

Approval ID: E228652



UL Listed

Approval ID: E228652



VDE Zeichengenehmigung

Approval ID: 40054426



CCC

Approval ID: 2024010304672814

DNV

Approval ID: TAA00002HK

2909561

<https://www.phoenixcontact.com/gb/products/2909561>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27370905 |
| ECLASS-15.0 | 27370905 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001037 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 25173900 |
|-------------|----------|

2909561

<https://www.phoenixcontact.com/gb/products/2909561>

Environmental product compliance

EU RoHS

| | |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

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.) | Lead(CAS: 7439-92-1) |
| | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7) |
| SCIP | 3c6e8222-3ac6-48ff-a169-581252681c4f |

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd
 Halesfield 13, Telford
 Shropshire, TF7 4PG
 01952 681700
info@phoenixcontact.co.uk