

## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

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Networkable hybrid motor starter for reversing 3~ AC motors up to 500 V AC, output current: 3 A, adjustable overload shutdown, and Push-in connection, DIN rail connector provided.

### Your advantages

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



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 919555 |
| GTIN                                 | 4046356919555                                                                                           |
| Weight per Piece (excluding packing) | 285.700 g                                                                                               |
| Custom tariff number                 | 85371098                                                                                                |
| Country of origin                    | Germany                                                                                                 |
| Note                                 | Made to Order (non-returnable)                                                                          |

### Technical data

#### Dimensions

|        |          |
|--------|----------|
| Width  | 22.5 mm  |
| Height | 107.5 mm |
| Depth  | 114 mm   |

#### Ambient conditions

|                                 |                                    |
|---------------------------------|------------------------------------|
| Ambient temperature (operation) | -5 °C ... 60 °C (observe derating) |
|---------------------------------|------------------------------------|

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## Technical data

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Maximum altitude                        | ≤ 2000 m         |
| Degree of protection                    | IP20             |

### Device 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                       |
| Type of protection                         | Surge protection            |
|                                            | Reverse polarity protection |

### Output data load output

|                                                   |                                  |
|---------------------------------------------------|----------------------------------|
| Output name                                       | AC output                        |
| Rated operating voltage $U_e$                     | 500 V AC                         |
| Operating voltage range                           | 42 V AC ... 550 V AC             |
| Rated operating current $I_e$                     | 3 A (AC-51)                      |
|                                                   | 3 A (AC-53a)                     |
| Mains frequency                                   | 50/60 Hz                         |
| Load current range                                | 180 mA ... 3 A (see to derating) |
| Trigger characteristic in acc. with IEC 60947-4-2 | Class 10                         |
| Cooling time                                      | 20 min. (for auto reset)         |
| Leakage current                                   | 0 mA                             |
| Type of protection                                | Surge protection                 |

### Overspeed tripping

|                   |         |
|-------------------|---------|
| Operate threshold | > 33 A  |
| Response time     | < 0.5 s |

### General

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| Motor starter type        | Reversing starter                                  |
| Switching frequency       | ≤ 2 Hz (Load-dependent)                            |
| Mounting position         | vertical (horizontal DIN rail, motor output below) |
| Mounting type             | DIN rail mounting                                  |
| Assembly instructions     | alignable, for spacing see derating                |
| Operating mode            | 100% operating factor                              |
| Maximum power dissipation | 4.1 W                                              |
| Minimum power dissipation | 0.88 W                                             |
| Operating voltage display | Green LED                                          |
| Status display            | Yellow LED                                         |
| Indication                | Red LED                                            |

### Connection data

|                 |                  |
|-----------------|------------------|
| Connection name | Control circuits |
|-----------------|------------------|

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## Technical data

### Connection data

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection method                | Push-in connection                          |
| Stripping length                 | 10 mm                                       |
| Conductor cross section solid    | 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                                   |

### Connection data 2

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection name                  | Load circuit                                |
| Connection method                | Push-in connection                          |
| Stripping length                 | 10 mm                                       |
| Conductor cross section solid    | 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                                   |

### Insulation characteristics

|                          |                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Rated insulation voltage | 550 V                                                                                                                      |
| Rated surge voltage      | 6 kV                                                                                                                       |
| Overvoltage category     | III                                                                                                                        |
| Degree of pollution      | 2                                                                                                                          |
| Designation              | Insulation characteristics between the control input and control supply voltage, and auxiliary circuit to the main circuit |
| Insulation               | Safe isolation (IEC 60947-1)                                                                                               |
| Designation              | Isolation characteristics between the control input and control supply voltage to auxiliary circuit                        |
| Insulation               | Safe isolation (IEC 60947-1) in the auxiliary circuit ≤ 300 V AC                                                           |
|                          | Safe isolation (EN 50178) in the auxiliary circuit ≤ 300 V AC                                                              |

### Standards and Regulations

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

### Conformance/approvals

|             |              |
|-------------|--------------|
| Designation | 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                | 3 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) |

## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

### Technical data

#### UL data

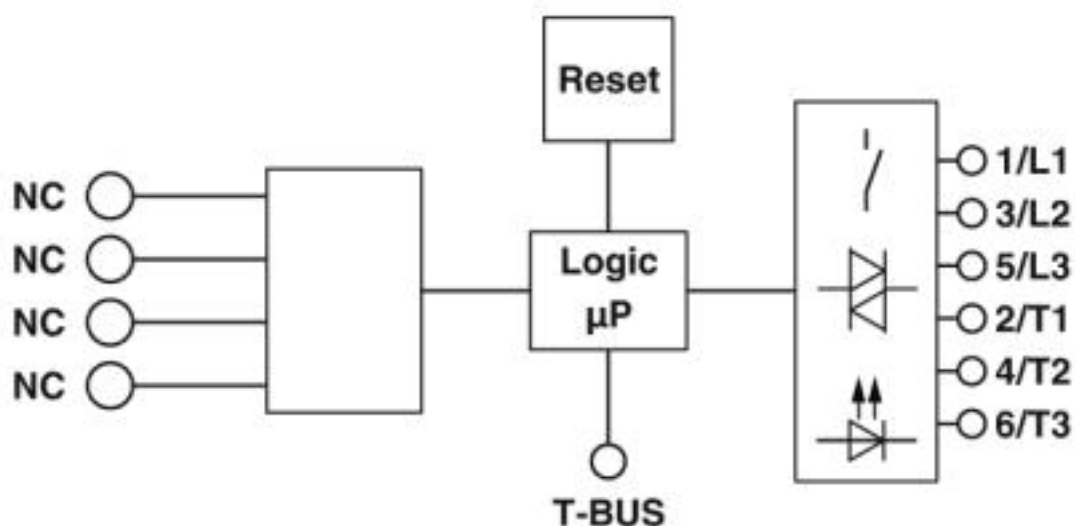
|                    |                              |
|--------------------|------------------------------|
| Category code      | NLDX / NRNT                  |
| Horsepower ratings | 0.5 hp (120 V AC / 208 V AC) |
|                    | 1.5 hp (277 V AC / 480 V AC) |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

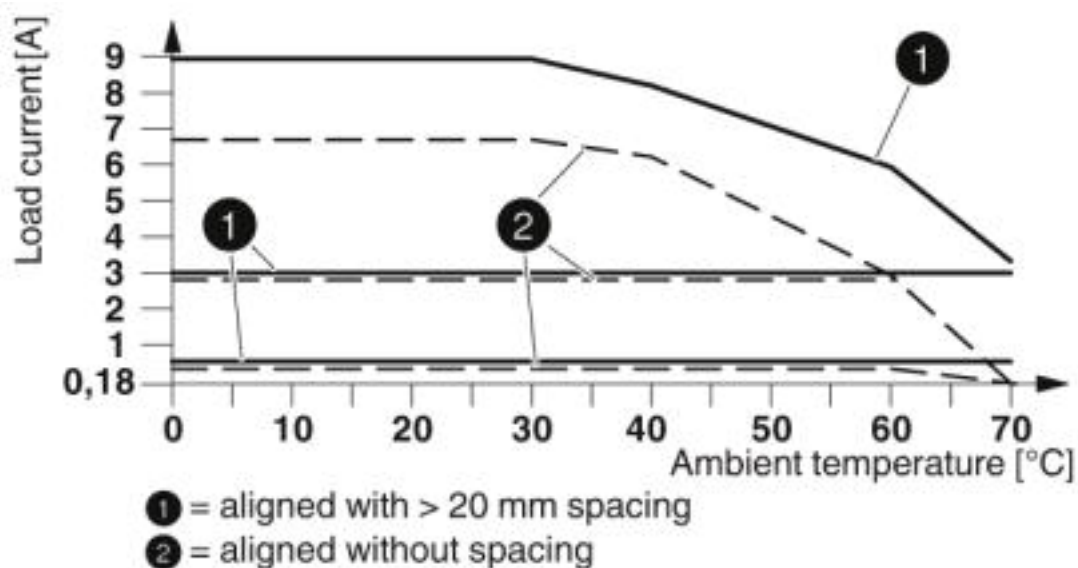
### Drawings

Block diagram



## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

Diagram



Derating diagram

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27021100 |
| eCl@ss 4.1 | 27021100 |
| eCl@ss 5.0 | 27024000 |
| eCl@ss 5.1 | 27024000 |
| eCl@ss 6.0 | 27024000 |
| eCl@ss 7.0 | 27024002 |
| eCl@ss 8.0 | 27024002 |
| eCl@ss 9.0 | 27370905 |

ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001037 |
| ETIM 3.0 | EC001037 |
| ETIM 4.0 | EC001037 |
| ETIM 5.0 | EC001037 |
| ETIM 6.0 | EC001037 |
| ETIM 7.0 | EC001037 |

UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 25173902 |
| UNSPSC 18.0 | 25173902 |
| UNSPSC 19.0 | 25173902 |
| UNSPSC 20.0 | 25173902 |

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## Classifications

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 25173902 |
|-------------|----------|

## Approvals

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### Approvals

UL Listed / cUL Listed / UL Listed / IECCE CB Scheme / cUL Listed / EAC / VDE Zeichengenehmigung / CCC

### Ex Approvals

## Approval details

|           |                                                                                    |                                                                                                                                                       |               |
|-----------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 228652 |
|-----------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

|            |                                                                                     |                                                                                                                                                       |               |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 228652 |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

|           |                                                                                     |                                                                                                                                                       |               |
|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

|                 |                                                                                     |                                                           |           |
|-----------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------|
| IECEE CB Scheme |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-60807 |
|-----------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------|

|            |                                                                                     |                                                                                                                                                       |               |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

|     |                                                                                     |  |                          |
|-----|-------------------------------------------------------------------------------------|--|--------------------------|
| EAC |  |  | RU C-<br>DE.A*30.B.01082 |
|-----|-------------------------------------------------------------------------------------|--|--------------------------|

|                        |                                                                                     |                                                                                                                                                                                                           |          |
|------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| VDE Zeichengenehmigung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40048671 |
|------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|

## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

### Approvals

CCC



2016010304900298

### Accessories

#### Accessories

##### Cover

Covering hood - BRIDGE COVER - 2906240



The BRIDGE COVER covering hood is used to cover unused plugs on the CONTACTRON bridge that may subsequently be used to extend the system. The hood can be used with the screw and Push-in version of the bridge.

### Device marking

Plastic label - US-EMLP (15X5) - 0828790



Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

Plastic label - UC-EMLP (15X5) - 0819301



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

### DIN rail connector

DIN rail bus connectors - ME 22,5 TBUS 1,5/ 5-ST-3,81 GY - 2201937



DIN rail connector, number of positions: 5, pitch: 3.81 mm

## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

### Accessories

DIN rail bus connectors - ME 22,5 TBUS ADAPTER KMGY - 2201756



DIN rail bus adapter for ME and ME-MAX, design width: 22.5 mm, 5 parallel positions, color: light gray (similar to RAL 7035)

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### Extension module

Extension module - EM-D-8/4-24DC-IFS - 2904473



For more complex applications with Interface system devices (IFS), the extension module offers digital inputs and outputs for processing additional signals in the field. Easy connection to IFS gateway via the DIN rail connector as the slave.

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### Gateways/Proxies

Data interface - EM-PB-GATEWAY-IFS - 2297620



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via PROFIBUS DP. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

Data interface - EM-ETH-GATEWAY-IFS - 2901988



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via EtherNet/IP™. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

Data interface - EM-PNET-GATEWAY-IFS - 2904472



Gateway for the connection of up to 32 INTERFACE system devices via PROFINET to a higher-level controller. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

# Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

## Accessories

### Data interface - EM-CAN-GATEWAY-IFS - 2901504



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via CANopen®. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

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### Data interface - EM-RS232-GATEWAY-IFS - 2901526



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via Modbus/RS-232. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

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### Data interface - EM-RS485-GATEWAY-IFS - 2901527



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via Modbus/RS-485. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

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### Data interface - EM-MODBUS-GATEWAY-IFS - 2901528



Gateway for the connection of up to 32 INTERFACE system devices via Modbus/TCP to a higher-level controller. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

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### Data interface - EM-DNET-GATEWAY-IFS - 2901529



Gateway for the connection of up to 32 INTERFACE system devices to a higher-level controller via DeviceNet™. The INTERFACE system devices are connected to the Gateway via DIN rail connectors, the DIN rail connectors are provided.

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## Loop bridge

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### Accessories

#### Jumper - BRIDGE-PT 2 - 2904490



3-phase loop bridge for 2 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 3 - 2904491



3-phase loop bridge for 3 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 4 - 2904492



3-phase loop bridge for 4 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 5 - 2904493



3-phase loop bridge for 5 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 6 - 2904494



3-phase loop bridge for 6 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

## Hybrid motor starter - ELR H5-I-PT/500AC-3-IFS - 2905146

### Accessories

#### Jumper - BRIDGE-PT 7 - 2904495



3-phase loop bridge for 7 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 8 - 2904496



3-phase loop bridge for 8 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 9 - 2904497



3-phase loop bridge for 9 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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#### Jumper - BRIDGE-PT 10 - 2904498



3-phase loop bridge for 10 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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