

Hybrid motor starter - ELR H5-IES-PT-24DC/500AC-2-T - 2906059

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Hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 24 V DC input, 2.4 A output current, emergency stop function, adjustable overload shutdown, higher transient voltage strength, and push-in connection.

The figure shows the ELR H5-IES-PT-24DC/500AC-2 version

Product Features



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 280.0 GRM |
| Custom tariff number | 85371099 |
| Country of origin | Germany |

Technical data

Input data

| | |
|---------------------------------------|--------------------------------------|
| Input name | Device supply |
| Rated control supply voltage U_s | 24 V DC (According to IEC 60947-1) |
| Voltage range with reference to U_s | 0.8 ... 1.25 |
| Rated control supply current I_s | ≤ 40 mA |
| Protective circuit | Protection against polarity reversal |
| | Surge protection |
| Operating voltage display | Green LED |
| Status display | Yellow LED |
| Indication | Red LED |
| Input name | Control input right/left |
| Rated actuating voltage U_c | 24 V DC |
| Voltage range with reference to U_c | 0.8 ... 1.25 |

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Technical data

Input data

| | |
|-------------------------------|--------------------------------------|
| Rated actuating current I_C | ≤ 5 mA |
| Switching level "safe off" | < 5 V DC |
| Protective circuit | Protection against polarity reversal |
| Typical response time | < 35 ms |
| Typical turn-off time | < 40 ms |

Output data load output

| | |
|---|---------------------------------|
| Rated operating voltage U_e | 500 V AC |
| Operating voltage range | 42 V AC ... 550 V AC |
| Load current | max. 2.4 A (see derating curve) |
| Min. load current | 180 mA |
| Trigger characteristic in acc. with IEC 60947 | Class 10A |
| Rated operating current at AC-51 | 2.4 A |
| Rated operating current at AC-53a | 2.4 A |
| Leakage current | 0 mA |
| Residual voltage | < 0.3 V (at I_e) |
| Protective circuit | Surge protection |

Output data reply output

| | |
|---------------------------------------|--|
| Note | Confirmation 01: floating change-over contact, signal contact |
| Contact type | 1 PDT |
| Contact material | AgSnO ₂ , hard gold-plated |
| Maximum switching voltage | 30 V AC 36 V DC |
| Minimum switching voltage | 100 mV AC/DC (at 10 mA) |
| Min. switching current | 1 mA (at 24 V) |
| Maximum inrush current | 50 mA |
| Limiting continuous current | 50 mA |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC) |
| Note | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (at 100 mA) |
| Min. switching current | 10 mA (at 12 V) |
| Limiting continuous current | 6 A |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC) 20 W (at 48 V DC) 18 W (at 60 V DC) 23 W (at 110 V DC) |

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Output data reply output

| | |
|---|------------------------|
| | 40 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |
| Switching capacity according to IEC 60947-5-1 | 2 A (at 24 V, DC13) |
| | 0.2 A (at 110 V, DC13) |
| | 0.1 A (at 220 V, DC13) |
| | 3 A (at 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| | 3 A (at 230 V, AC15) |

Measuring technology and signaling contact

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

Connection data

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

General

| | |
|--------------------------|--|
| Mounting position | Vertical (horizontal DIN rail) |
| Assembly instructions | Can be aligned with spacing = 20 mm |
| Operating mode | 100% operating factor |
| Designation | Standards/regulations |
| Standards/regulations | IEC 60947-1 |
| | EN 60947-4-2 |
| | IEC 61508 |
| | ISO 13849 |
| Designation | Air clearances and creepage distances between the power circuits |
| Standards/regulations | DIN EN 50178 |
| Rated surge voltage | 6 kV |
| Insulation | Safe isolation (EN 50178) for mains voltage ≤ 500 V AC |
| | Safe isolation (IEC 60947-1) for mains voltage ≤ 300 V AC |
| | Basic insulation (IEC 60947-1) for mains voltage of 300 ... 500 V AC |
| Rated insulation voltage | 500 V |
| Pollution degree | 2 |

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General

| | |
|---|--------------------------|
| Surge voltage category | III |
| Safety Integrity Level according to IEC 61508 | SIL 3 (safe shutdown) |
| | SIL 2 (motor protection) |
| Category acc. to EN ISO 13849 | 3 |
| Performance level according to ISO 13849 | e |

Dimensions

| | |
|--------|----------|
| Width | 22.5 mm |
| Height | 99 mm |
| Depth | 114.5 mm |

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | 5 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Degree of protection | IP20 |

UL data

| | |
|-------------------------------------|--|
| Short-circuit current rating (SCCR) | 100 kA (500 V AC (30 A CC/30 A J (high fault) fuse)) |
| | 5 kA (500 V AC (20 A RK5 (standard fault) fuse)) |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 5.0 | EC001037 |
|----------|----------|

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

ATEX

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Approvals

Approvals submitted

Approval details



Drawings

Diagram



Derating curve