

Hybrid motor starter - ELR H5-I-PT- 24DC/500AC-9 - 2903912

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Hybrid motor starter for reversing 3~ AC motors up to 500 V AC and 9 A output current, with 24 V DC control voltage, adjustable overload shutdown, and push-in connection.

The figure shows the ELR H5-IES-PT- 24DC/500AC-9 version

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

package_quantity	1
GTIN	4046356771351

Technical data

Note

Type of note	Notes on operation
Note	If this device is to be used in combination with the CrossPowerSystem power distribution board, the device mount for the 16 A fuse (order designation: EM-CPS-DA-22,5F/16A; order number: 1002668) is required in order to attach the hybrid motor starter to the power distribution board.

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	40 mA
Type of protection	Surge protection
Type of protection	Reverse polarity protection

Input data

Input name	Control input right/left
Rated actuating voltage U_c	24 V DC
Triggering voltage range	19.2 V DC ... 30 V DC

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Input data

Rated actuating current I_c	5 mA (Input type 1)
Switching threshold	9.6 V ("0" signal)
Switching threshold	19.2 V ("1" signal)
Typical turn-off time	< 30 ms
Type of 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	9 A (AC-51)
Rated operating current I_e	6.5 A (AC-53a)
Mains frequency	50/60 Hz
Load current range	1.5 A ... 9 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
Type of protection	Surge protection

Output data reply output

Output name	Acknowledge output
Note	Confirmation: floating change-over contact, signal contact
Contact type	1 PDT
Switching capacity according to IEC 60947-5-1	3 A (230 V, AC15)
Switching capacity according to IEC 60947-5-1	2 A (24 V, DC13)

Overspeed tripping

Operate threshold	> 45 A
Response time	2 s

General

Switching frequency	\leq 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	7 W
Minimum power dissipation	0.88 W
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED

Connection data, input side

Connection name	Control circuits
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Connection data, input side

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

Connection data, output side

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

Ambient conditions

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

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

UL data

SCCR	100 kA (500 V AC (fuse: 30 A class CC/30 A class J (high fault)))
SCCR	5 kA (500 V AC (fuse: 20 A RK5 (standard fault)))
FLA	6.5 A (500 V AC)
Group installation	20 A (class RK5, SCCR 5kA, #24 - 14 AWG max. solid and stranded)
Group installation	30 A (class CC or J, SCCR 100kA, #24 - 14 AWG max, solid and stranded)
Category code	NLDX / NRNT

Insulation characteristics

Rated insulation voltage	500 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) at operating voltage ≤ 300 V AC (e.g., 230/400 V AC, 277/480 V AC)
Insulation	Safe isolation (EN 50178) at operating voltage ≤ 300 V A (e.g., 230/400 V AC, 277/480 V AC)
Insulation	Basic isolation (IEC 60947-1) at operating voltage 300 ... 500 V AC

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Insulation characteristics

Insulation	Safe isolation (EN 50178) at operating voltage 300 ... 500 V AC
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
Insulation	Safe isolation (EN 50178) in the auxiliary circuit ≤ 300 V AC

Standards and Regulations

Designation	Standards/regulations
Standards/regulations	IEC 60947-1
Standards/regulations	IEC 60947-4-2
Standards/regulations	IEC 61508
Standards/regulations	ISO 13849

Approvals/conformities

UL certificate	NLDX.E228652
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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 5.0	27024002
eCl@ss 5.1	27024002
eCl@ss 6.0	27024002
eCl@ss 7.0	27024002
eCl@ss 8.0	27024002
eCl@ss 9.0	27024002

ETIM

ETIM 2.0	EC001037
ETIM 3.0	EC001037
ETIM 4.0	EC001037
ETIM 5.0	EC001037
ETIM 6.0	EC001037

UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	25173902

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Approvals

UL Listed / cUL Listed / IECEx CB Scheme / UL Listed / cUL Listed / CCC-s / cULus Listed /

Approval details

UL Listed

cUL Listed

IECEE CB Scheme

CCC-s

cULus Listed

Accessories

Loop bridge

BRIDGE-PT 2 - 2904490



BRIDGE-PT 3 - 2904491



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Accessories

BRIDGE-PT 4 - 2904492



BRIDGE-PT 5 - 2904493



BRIDGE-PT 6 - 2904494



BRIDGE-PT 7 - 2904495



BRIDGE-PT 8 - 2904496



BRIDGE-PT 9 - 2904497



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Accessories

BRIDGE-PT 10 - 2904498



Cover

BRIDGE COVER - 2906240



Device marking

US-EMLP (15X5) - 0828790



UC-EMLP (15X5) - 0819301



Assembly adapter

EM-CPS-225 - 1002634



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Accessories

EM-CPS-405 - 1002635



EM-CPS-TB3/63A - 1002633



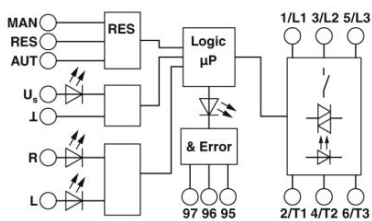
Accessories

EM-CPS-DA-22,5F/16A - 1002668

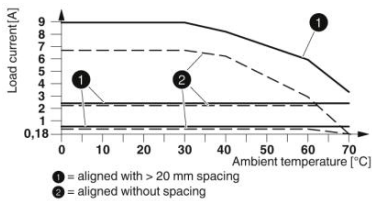


Drawings

Block diagram



Diagram



Derating diagram

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