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Hybrid motor starter - ELR H3-I-SC-230AC/500AC-9 - 2900546

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Hybrid motor starter for starting 3~ AC motors up to 550 V AC, with 230 V AC input, 9 A output current, and adjustable overload shutdown.

Why buy this product

- 22.5 mm wide
- Low-wear switching
- Space saving
- Long service life
- Reduction in wiring
- 3-phase loop bridges
- Bimetal function can be set up to 9 A

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 527736

Technical data

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

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

Device supply

Rated control circuit supply voltage U_S	230 V AC (50/60 Hz)
Control supply voltage range	85 V AC ... 253 V AC

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Technical data

Device supply

Rated control supply current I_S	4 mA
Protective circuit	Surge protection

Input data

Input name	Control input right/left
Rated actuating voltage U_C	230 V AC
Voltage range	85 V AC ... 253 V AC
Rated actuating current I_C	7 mA
Switching threshold	44 V AC (“0” signal)
	85 V AC (“1” signal)
Typical turn-off time	< 70 ms

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
Mains frequency	50 Hz
	60 Hz
Load current range	1.5 A ... 9 A (see to derating)
Trigger characteristic in acc. with IEC 60947	Class 10A
Cooling time	20 min. (for auto reset)
Rated operating current at AC-51	9 A
Rated operating current at AC-53a	6.5 A
Leakage current	0 mA
Protective circuit	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)
	2 A (24 V, DC13)

Overspeed tripping

Operate threshold	> 45 A
Response time	< 2 s

General

Switching frequency	≤ 2 Hz (Load-dependent)
Mounting position	vertical (horizontal DIN rail, motor output below)
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor
Maximum power dissipation	7 W

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Technical data

General

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
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

Connection data, output side

Connection name	Load circuit
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

Standards/regulations

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

Insulation characteristics

Rated insulation voltage	500 V
Rated surge voltage	4 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
	Safe isolation (EN 50178) at operating voltage ≤ 300 V AC
	Basic isolation (IEC 60947-1) at operating voltage 300 ... 500 V AC
	Safe isolation (EN 50178) at operating voltage 300 ... 500 V AC

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Technical data

Insulation characteristics

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

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	6.5 A (480 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

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

Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371601
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27370905

ETIM

ETIM 2.0	EC000066
ETIM 3.0	EC000066
ETIM 4.0	EC000066
ETIM 5.0	EC002055

UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514

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Classifications

UNSPSC

UNSPSC 13.2	39121514

Approvals

Approvals

Approvals

UL Listed / cUL Listed / IECEE CB Scheme / UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed

cUL Listed

IECEE CB Scheme

UL Listed

cUL Listed

EAC

EAC

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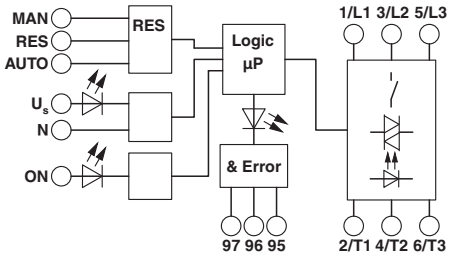
Approvals

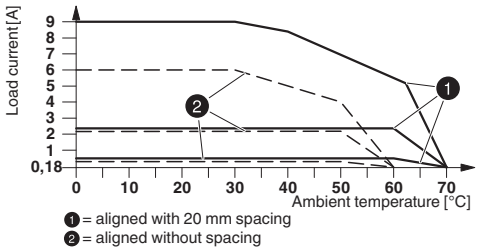
cULus Listed

Drawings

Block diagram

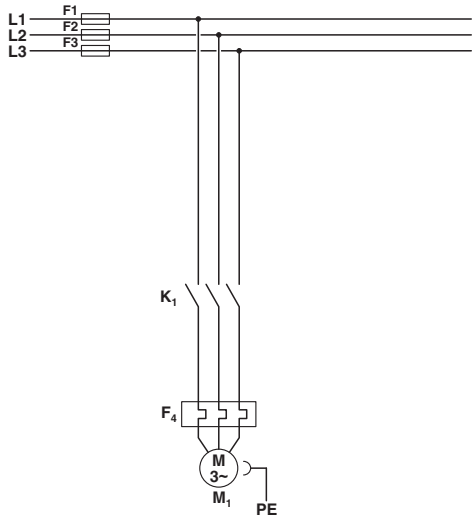


Diagram



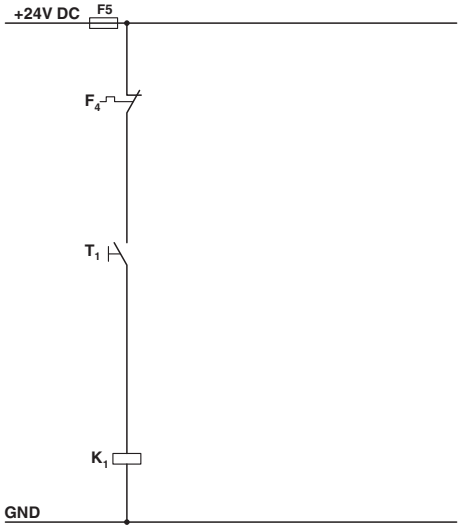
Derating diagram

Circuit diagram



Conventional structure
Main current path reversing contactor
K1 = Right contactor
F4 = Motor protection relay

Circuit diagram



Conventional structure
Control current path contactor
K1 = Right contactor
T1 = Right
F4 = Motor protection relay

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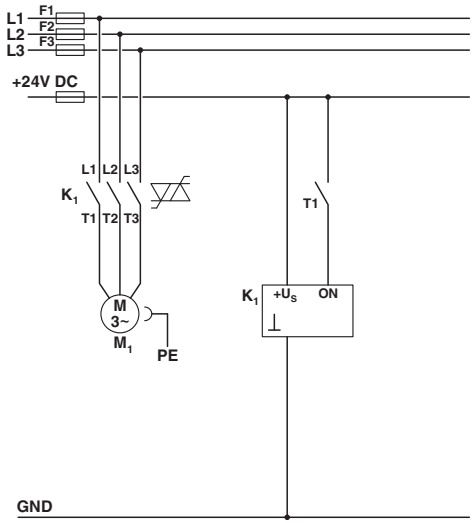
Circuit diagram



Structure with CONTACTRON
Main and control current path for '2 in 1' hybrid motor starter
K1 = '2 in 1' hybrid motor starter
T1 = Right

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com

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Product	Code	Reference	Product link
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