

Hybrid motor starter - ELR H5-I-SC-230AC/500AC-0,6 - 2900691

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Hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 230 V AC input, 0.6 A output current, and adjustable overload shutdown.

Your advantages

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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 528207
GTIN	4046356528207
Weight per Piece (excluding packing)	280.000 g
Custom tariff number	85371098
Country of origin	Germany

Technical data

Device supply

Rated control circuit supply voltage U_s	230 V AC
Control supply voltage range	85 V AC ... 253 V AC
Rated control supply current I_s	4 mA

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Technical data

Device supply

Mains frequency	50/60 Hz
Type of protection	Surge protection

Input data

Input name	Control input right/left
Rated actuating voltage U_c	230 V AC
Triggering voltage range	85 V AC ... 253 V AC
Rated actuating current I_c	7 mA (Input type 1)
Mains frequency	50/60 Hz
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
Rated operating current I_e	0.6 A (AC-51)
	0.6 A (AC-53a)
Mains frequency	50/60 Hz
Load current range	75 mA ... 600 mA (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)
	2 A (24 V, DC13)

General

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

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Technical data

General

Maximum power dissipation	2.9 W
Minimum power dissipation	2.6 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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm
	5 lb _f -in. ... 7 lb _f -in.

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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm
	5 lb _f -in. ... 7 lb _f -in.

Ambient conditions

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

Dimensions

Width	22.5 mm
Height	107 mm
Depth	114 mm

Insulation characteristics

Rated insulation voltage	500 V
Rated surge voltage	4 kV

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Technical data

Insulation characteristics

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
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
	IEC 60947-4-2
	IEC 61508
	ISO 13849

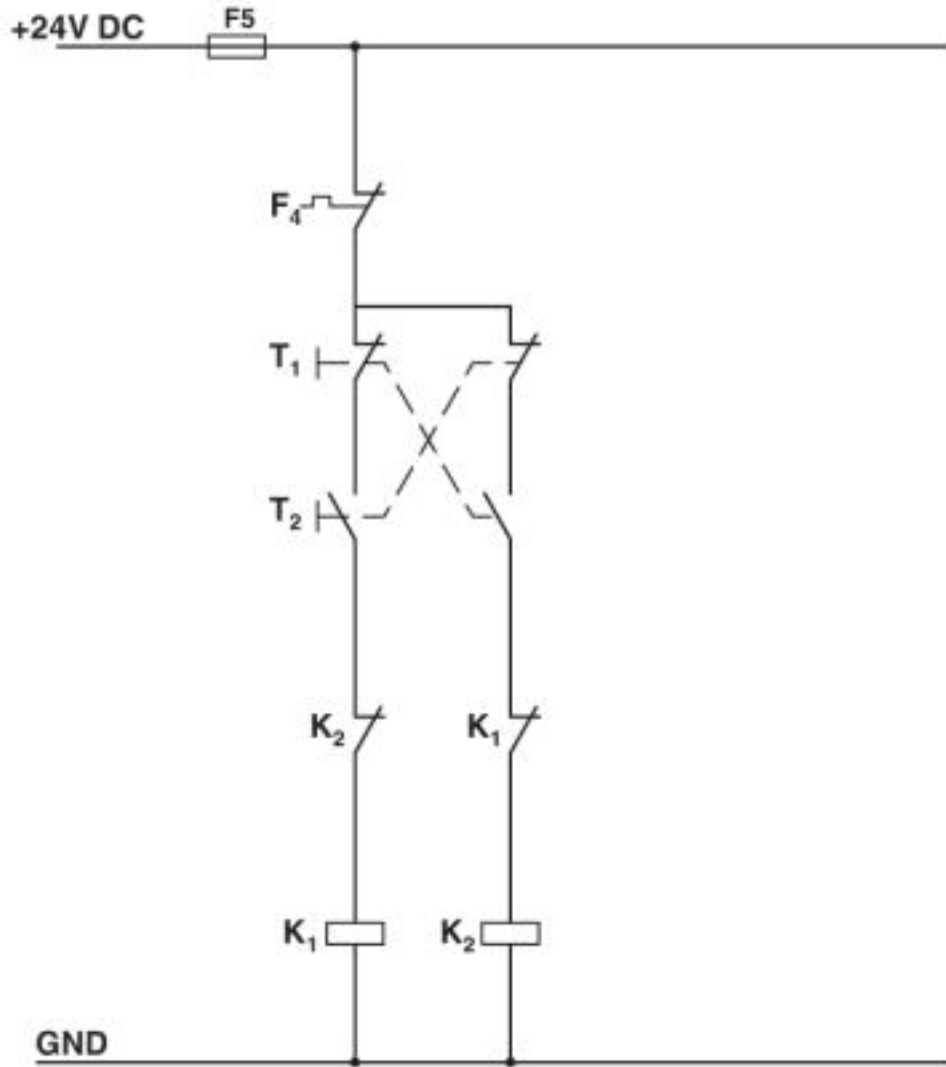
Environmental Product Compliance

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

Drawings

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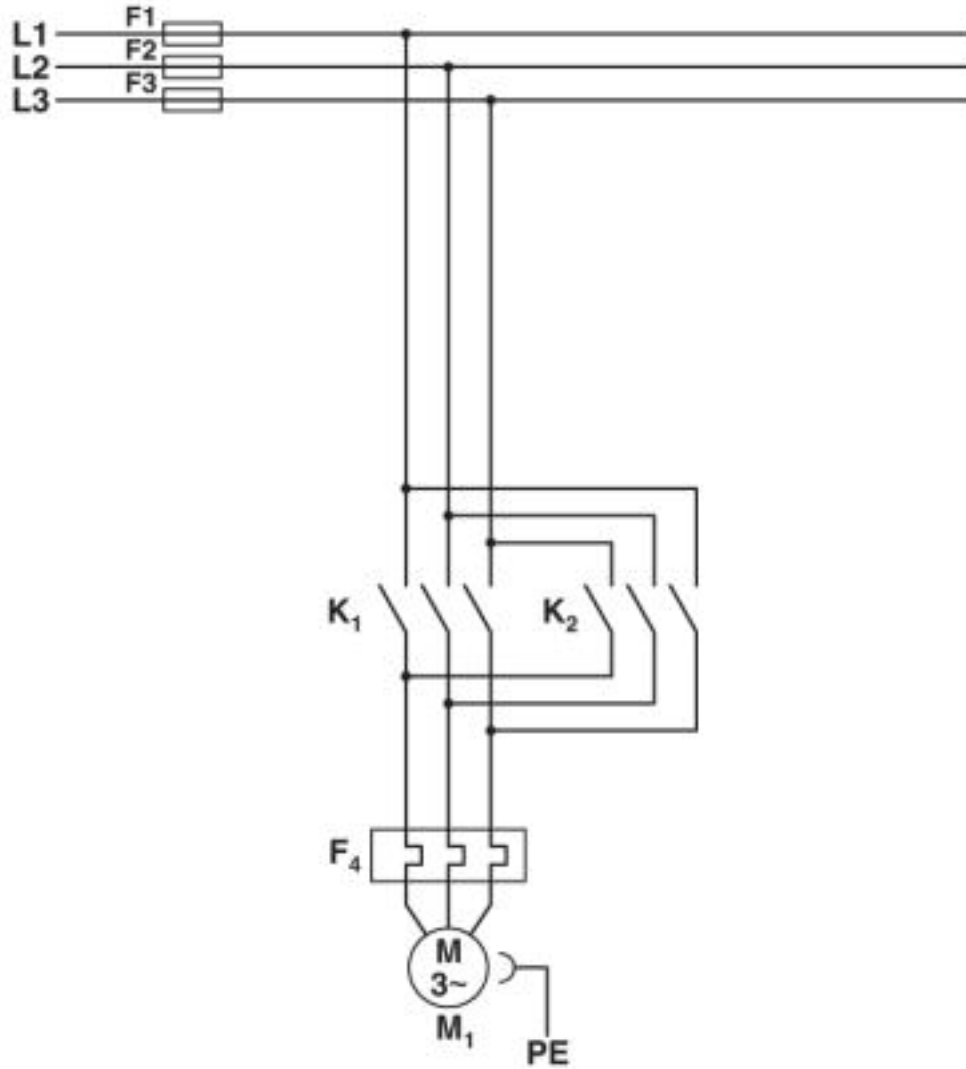
Circuit diagram



Conventional structure
 Control current path contactor
 K1 = Left contactor
 K2 = Right contactor
 T1 = Left, T2 = Right
 F4 = Motor protection relay

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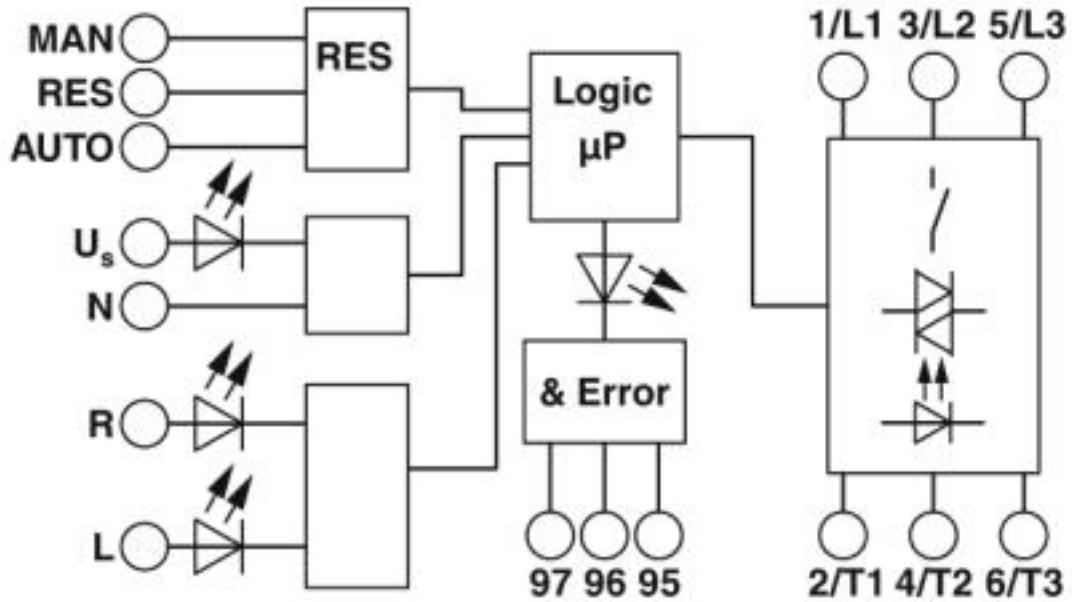
Circuit diagram



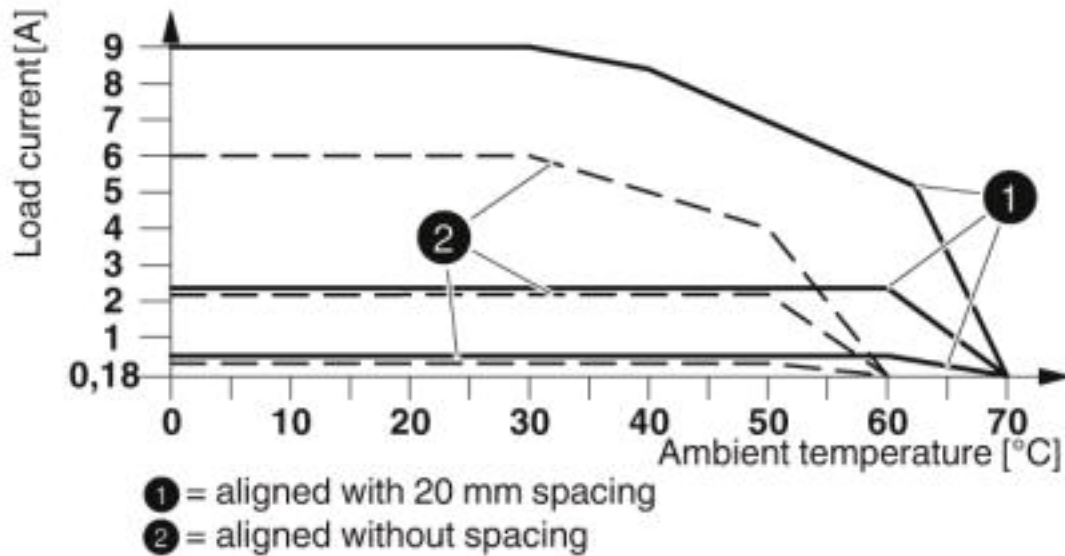
Conventional structure
 Main current path contactor
 K1 = Left contactor
 K2 = Right contactor
 F4 = Motor protection relay

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Block diagram



Diagram



Derating diagram

<https://www.phoenixcontact.com/us/products/2900691>

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Classifications

eCl@ss

eCl@ss 5.0	27024002
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

UNSPSC

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

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