

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



"4 in 1" hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 230 V AC input, 0.6 A output current, emergency stop function, and adjustable overload shutdown.

Illustration shows the 24 V design

Product Features

- 22.5 mm wide
- Safety level according to IEC 61508-1: SIL 3, ISO 13849: PL e
- Long service life
- Space saving
- Reduction in wiring
- Bimetal function can be set up to 9 A
- 3-phase loop bridges



Key commercial data

package_quantity	1
GTIN	4046356526296

Technical data

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

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

Input data

Input name	Device supply
Rated control supply voltage U_s	230 V AC (50/60 Hz)
Voltage range with reference to U_s	0.4 ... 1.1
Rated control supply current I_s	4 mA
Rated actuating voltage U_c	230 V AC

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

Technical data

Input data

Voltage range with reference to U_c	0.4 ... 1.1
Rated actuating current I_c	7 mA
Switching threshold "0" signal, voltage	44 V AC
Switching threshold "1" signal voltage	85 V AC
Protective circuit	Surge protection
Typical response time	< 35 ms
Typical turn-off time	< 80 ms
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED
Input name	Control input right/left

Output data

Output name	AC output
Nominal output voltage	500 V AC
Nominal output voltage range	42 V AC ... 550 V AC
Load current	max. 600 mA (see derating curve)
Rated operating current at AC-51	0.6 A
Rated operating current at AC-53a	0.6 A
Leakage current	0 mA
Residual voltage	< 0.2 V
Surge current	100 A (t = 10 ms)
Type of protection	Surge protection
Output name	Acknowledge output
Note	Confirmation 01: Floating PDT contact
Nominal output voltage	max. 250 V AC
Continuous load current	6 A

Output data, signaling contact

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

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.14 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	14

General

Test voltage input/output	4 kV _{rms}
Mounting position	Vertical (horizontal DIN rail)

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

Technical data

General

Assembly instructions	Can be aligned with spacing = 20 mm
Operating mode	100% operating factor
Name	Standards/regulations
Standards/regulations	DIN EN 50178
Standards/regulations	EN 60947
Name	Power station requirements
Standards/regulations	DWR 1300 / ZXX01/DD/7080.8d
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated surge voltage / insulation	6 kV/safe isolation
Rated insulation voltage	500 V
Pollution degree	2
Surge voltage category	III
Safety integrity level according to IEC 61508-1	SIL 3 (safe shutdown)
Safety integrity level according to IEC 61508-1	SIL 2 (motor protection)
Category as per ISO 13849-1	3
Performance Level as per ISO 13849-1	e
Category in acc. with EN 954-1	3

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	27371601

ETIM

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

UNSPSC

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

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

approvals

ATEX / UL Listed / cUL Listed / IECEx CB Scheme / UL Listed / cUL Listed / GL / GL-SW / IECEx CB Scheme / cULus Listed / GL /

Approval details

ATEX	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

UL Listed

cUL Listed

IECEx CB Scheme

--

--

GL

GL-SW

--

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

approvals

cULus Listed 

accessories

Loop bridge

BRIDGE- 2 - 2900746



BRIDGE- 3 - 2900747



BRIDGE- 4 - 2900748



BRIDGE- 5 - 2900749



Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692 accessories

BRIDGE- 6 - 2900750



BRIDGE- 7 - 2900751



BRIDGE- 8 - 2900752



BRIDGE- 9 - 2900753



BRIDGE-10 - 2900754



BRIDGE- 2-3M - 2901543



Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692 accessories

BRIDGE- 3-3M - 2901656



BRIDGE- 4-3M - 2901659



BRIDGE- 5-3M - 2901545



BRIDGE- 6-3M - 2901697



BRIDGE- 7-3M - 2901698



Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692 accessories

BRIDGE- 8-3M - 2901700



BRIDGE- 9-3M - 2901701



BRIDGE-10-3M - 2901702



BRIDGE- 2-1M - 2901542



BRIDGE- 3-1M - 2901655



BRIDGE- 4-1M - 2901658



Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692 accessories

BRIDGE- 5-1M - 2901544

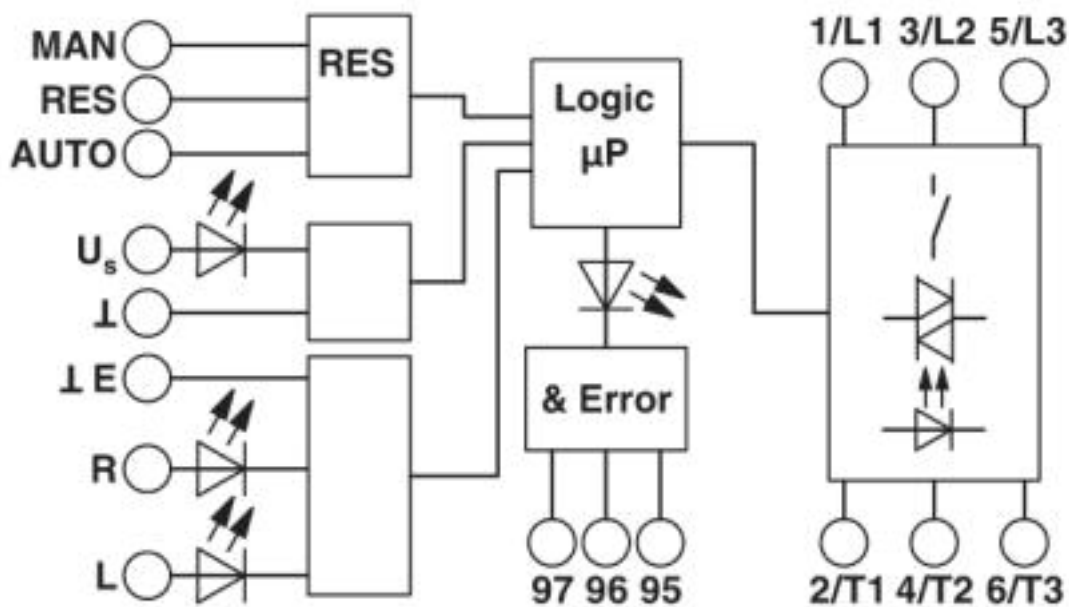


BRIDGE- 6-1M - 2901649



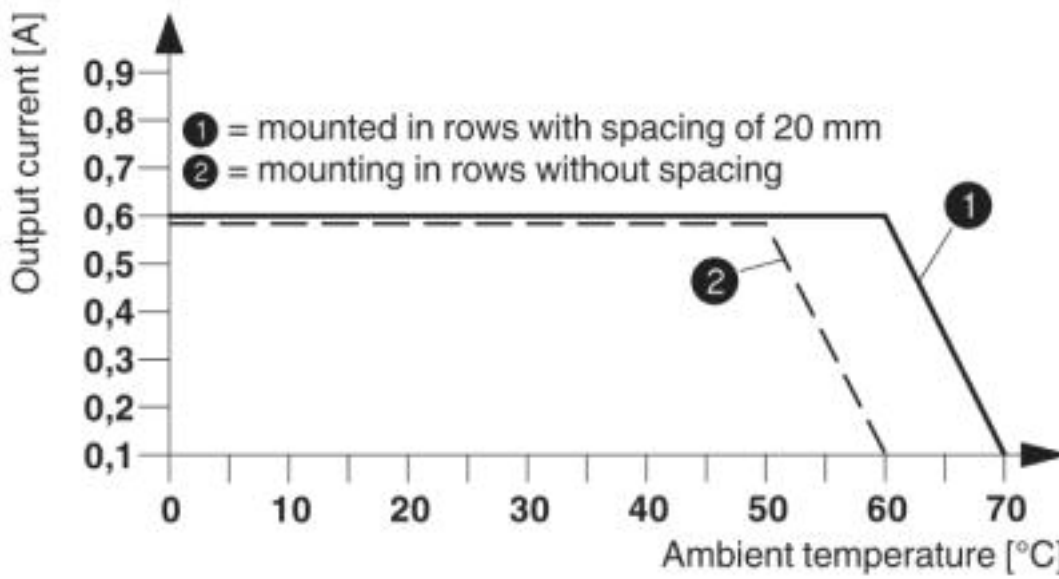
Drawings

Block diagram



Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

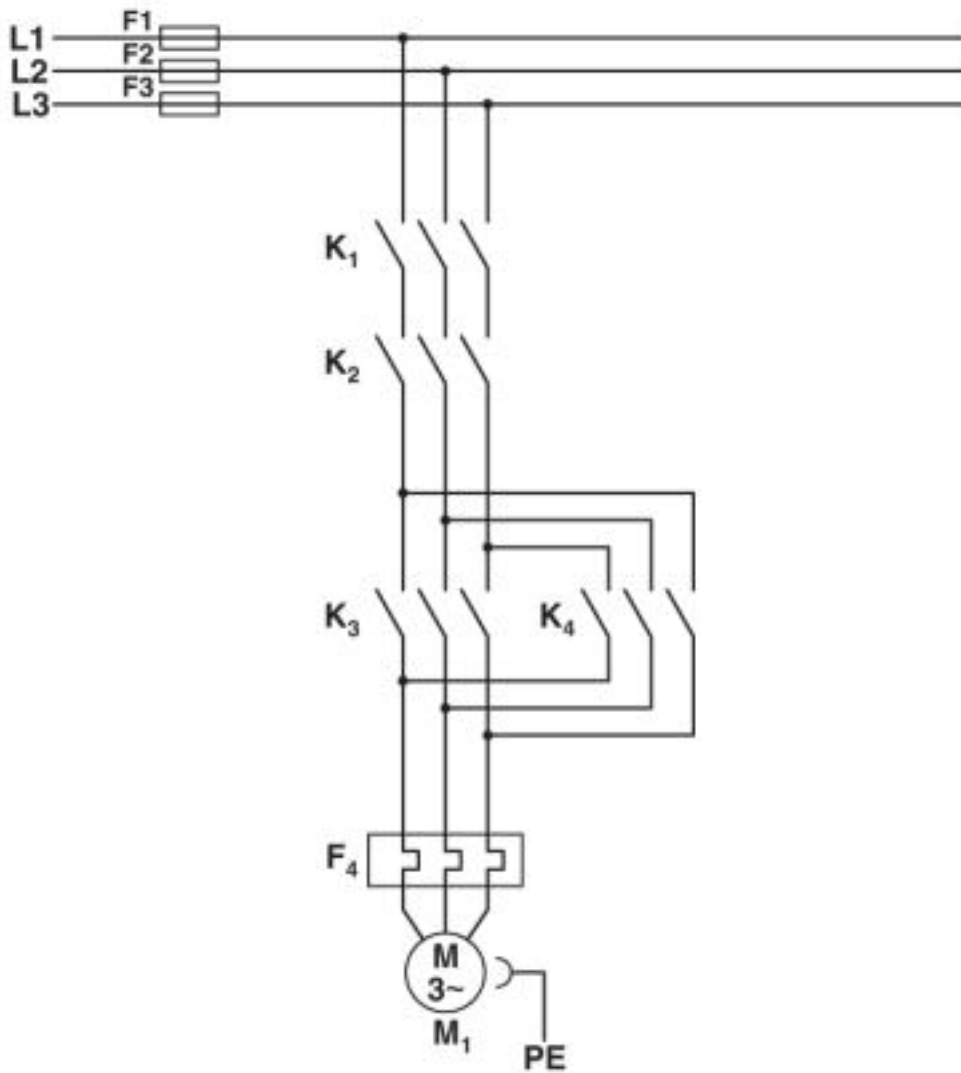
Diagram



Derating curve ELR H5-IES-SC-230AC/500AC-0.6

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

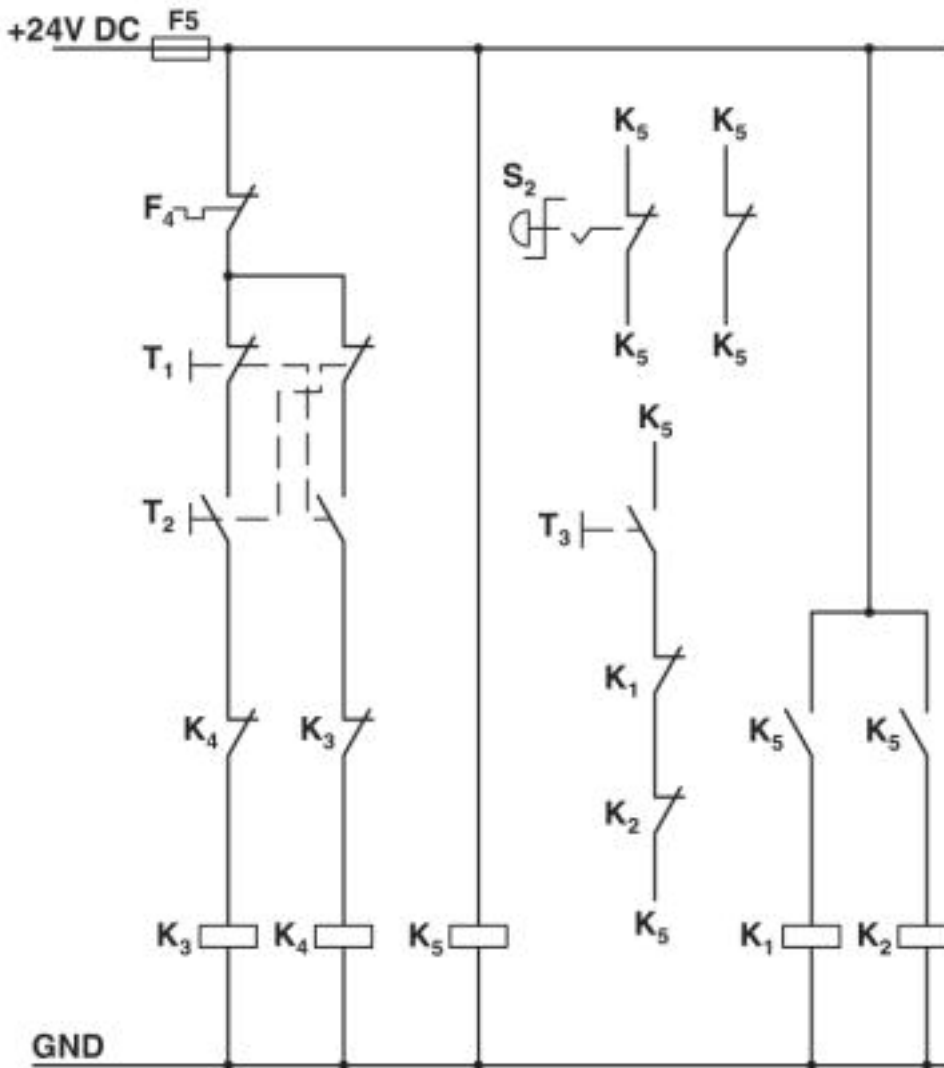
Circuit diagram



Conventional structure
Main current path for reversing contactor according to category 3
K1 + K2 = Emergency stop contactor
K3 = Left contactor
K4 = Right contactor
F4 = Motor protection relay

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

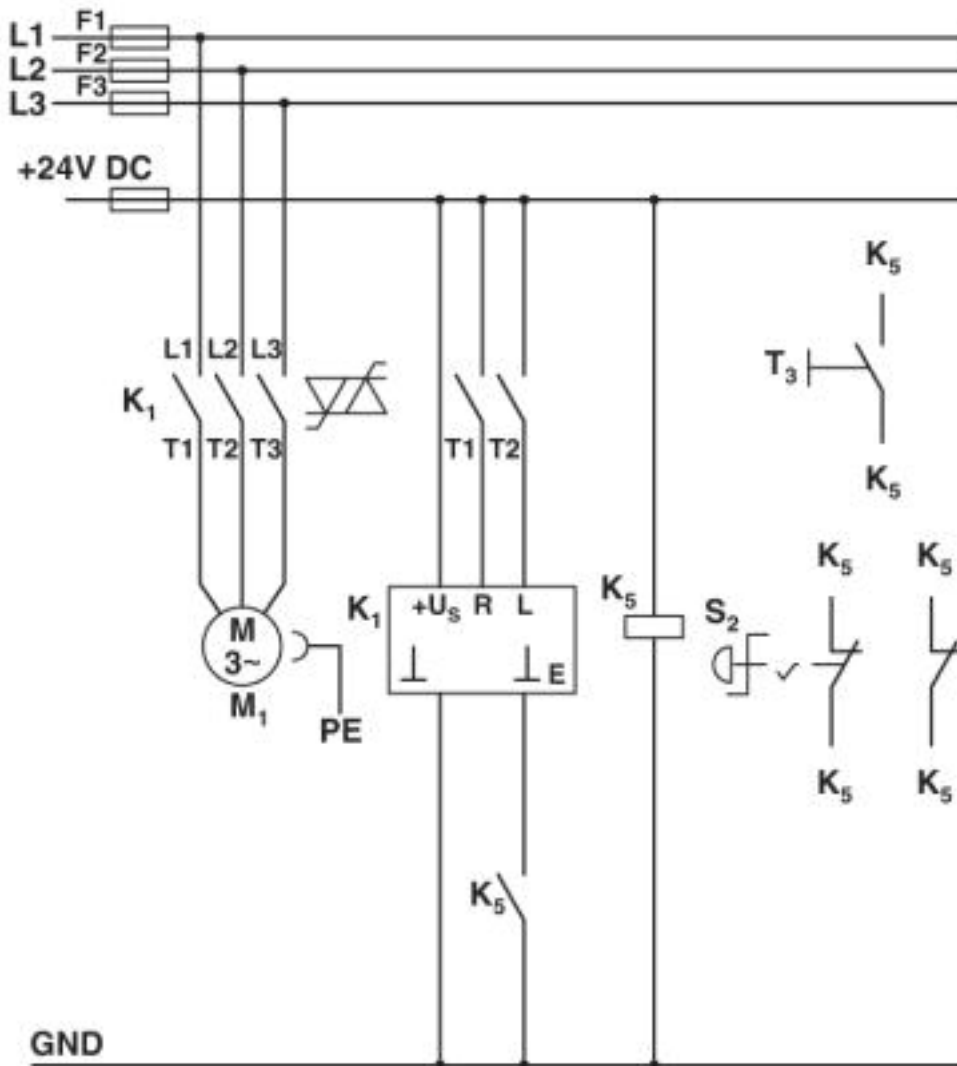
Circuit diagram



Conventional structure
 Control current path reversing contactor according to category 3
 K1 + K2 = Emergency stop contactor
 K3 = Left contactor
 K4 = Right contactor
 K5 = PSR SCP-24DC.../Safety relay
 T1 = Right, T2 = Left, T3 = Reset
 S2 = Emergency stop
 F4 = Motor protection relay

Hybrid motor starter - ELR H5-IES-SC-230AC/500AC-0,6 - 2900692

Circuit diagram



Structure with CONTACTRONMain and control current path for "4 in 1" hybrid motor starter with reversing function according to category 3K1 = "4 in 1" hybrid motor starter with reversing functionK5 = PSR SCP-24DC.../Safety relayT1 = Right, T2 = Left, T3 = ResetS2 = Emergency stop

© Phoenix Contact 2013 - all rights reserved
<http://www.phoenixcontact.com>