Extract from the online catalog

ELR H3-IES-SC-230AC/500AC-2

Order No.: 2900568

Illustration shows the 24 V design

"3 in 1" hybrid motor starter for starting 3~ AC motors up to 550 V AC, with 230 V AC input, 2.4 A output current, and adjustable overload shutdown.

Commercial data	
EAN	4046356526142
Note	Made-to-order
Pack	1
Weight/Piece	280.60 g
Product key	06410
Country of Origin	DE
Catalog page information	Page 232 (NTK-2010)

Product notes

WEEE/RoHS-compliant since: 03/03/2010

Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation at http://www.download.phoenixcontact.com. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

Input data

Mains frequency	40 Hz
	100 Hz
Rated control supply voltage U_S	230 V AC
Rated control supply 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
Rated actuating 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 circuitry	Surge protection
Typical response time	< 35 ms
Typical turn-off time	< 80 ms
Operating voltage display	LED green
Status display	Yellow LED
Indication	LED red

Output data, load relay

Output name	AC output
Nominal output voltage	500 V AC
Nominal output voltage range	42 V AC ... 550 V AC
Load current	max. 2.4 A (see derating curve)
Leakage current	0 mA
Residual voltage	< 0.3 V
Surge current	100 A (t = 10 ms)
Name of protection	Surge protection
Output name	Acknowledge output
Note	Confirmation 01: Floating PDT contact
Nominal output voltage	max. 253 V AC 0% ... 100% (300 V DC)
Continuous load current	2 A

Output data, signaling contact

Measuring via	Current transformer for line current on L1 and L3

Connection data

Type of connection	Screw connection
Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.14 mm²
Conductor cross section stranded max.	2.5 mm²

Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

General data

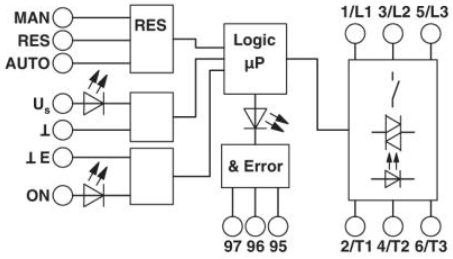
Width	22.5 mm
Height	114.5 mm
Depth	99 mm
Test voltage input/output	4 kV_{rms}
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Mounting position	optional (Observe derating)
Assembly instructions	Can be aligned with spacing = 20 mm
Operating mode	100% operating factor
Degree of protection	IP20
Name	Standards/regulations
Standards/regulations	DIN EN 50178
	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	4 kV
Rated insulation voltage	500 V
Pollution degree	2
Surge voltage category	III

Certificates

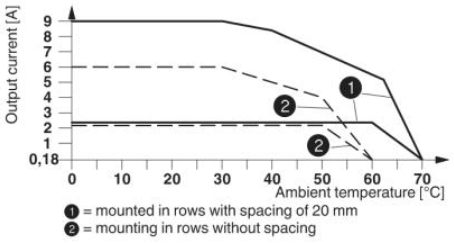
Certification	CUL Listed, UL Listed

Drawings

Block diagram

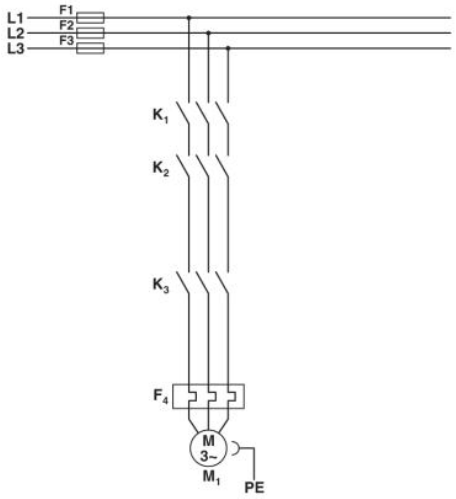


Diagram

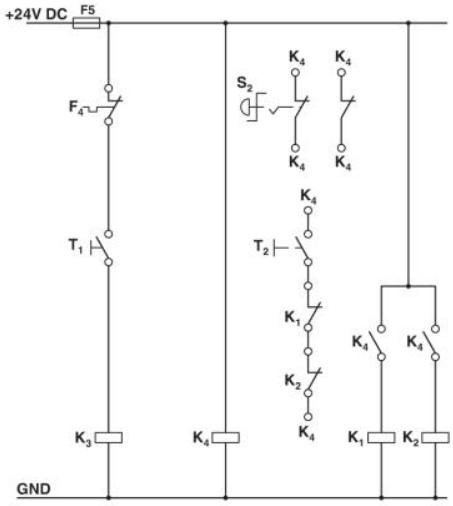


Derating curve ELR H3-IES-SC-230AC/500AC-2 and ELR H3-IES-SC-230AC/500AC-9

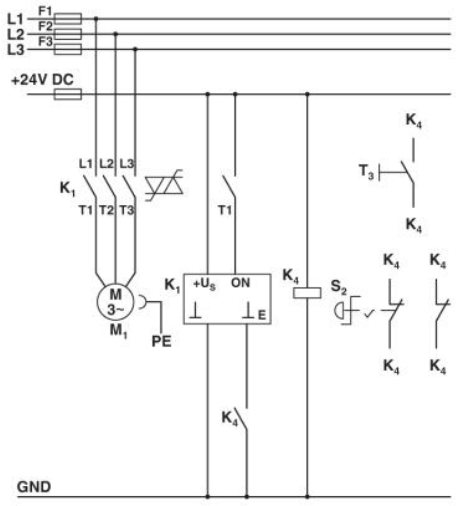
Circuit diagram



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



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



Structure with CONTACTRON
Main and control current path for "3 in 1" hybrid motor starter according to category 3
K1 = "3 in 1" hybrid motor starter
K4 = PSR SCP-24DC.../safety relay
T1 = Right, T3 = Reset
S2 = Emergency stop

Address

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