Extract from the online catalog

ELR H5-IES-SC- 24DC/500AC-9

Order No.: 2900421



http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2900421

"4 in 1" hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 24 V DC input, 9 A output current, emergency stop function, and adjustable overload shutdown.



Product notes

WEEE/RoHS-compliant since: 02/09/2010

http://www.download.phoenixcontact.com
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. The General Terms and Conditions of Use apply to Internet downloads.

Commercial data

GTIN (EAN)	4 046356 504676
sales group	G421
Pack	1 pcs.
Customs tariff	85364900
Catalog page information	Page 231 (NTK-2010)

Technical data

Input data

Rated control supply voltage U_S	24 V DC
Rated control supply voltage range with reference to U_S	0.8 ... 1.25
Rated control supply current I_S	40 mA

Rated actuating voltage U_C	24 V DC
Rated actuating voltage range with reference to U_C	0.8 ... 1.25
Rated actuating current I_C	3 mA
Switching threshold "0" signal, voltage	9.6 V
Switching threshold "1" signal voltage	19.2 V
Protective circuit	Protection against polarity reversal Parallel polarity protection diode
	Surge protection
Typical response time	< 35 ms
Typical turn-off time	< 40 ms
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED

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. 9 A (see derating curve)
Leakage current	0 mA
Residual voltage	< 0.5 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. 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

Connection method	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	99 mm
Depth	114.5 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	Vertical (horizontal DIN rail)
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	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)
	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

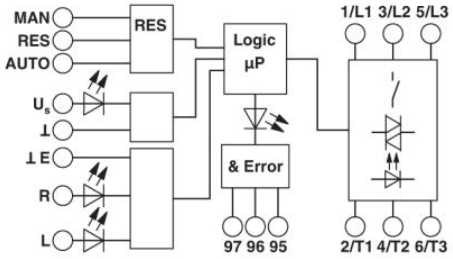
Certificates / Approvals

Certification	CB, CUL Listed, UL Listed

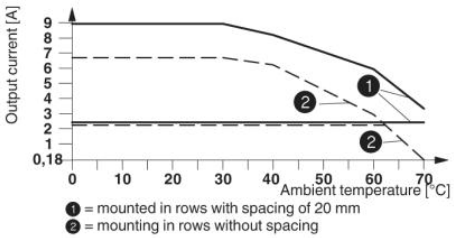
Certification Ex:	PTB

Diagrams/Drawings

Block diagram

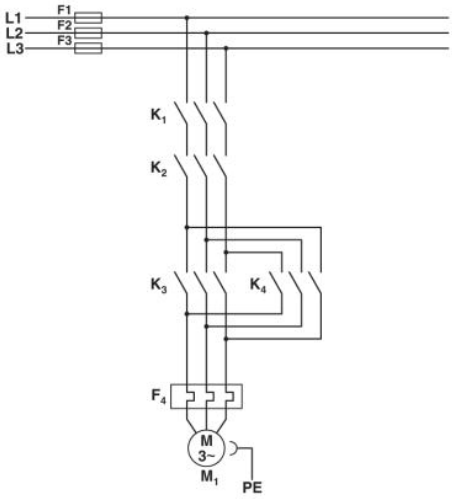


Diagram

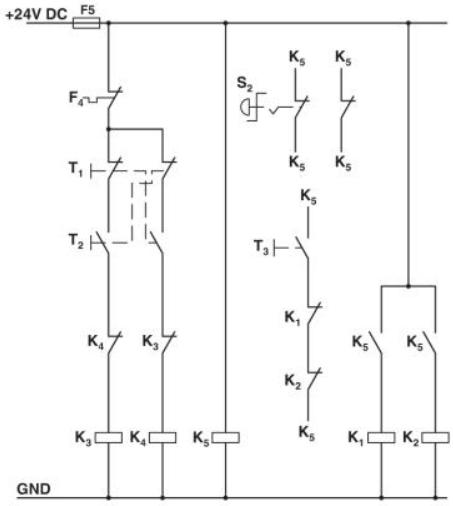


Derating curve ELR H5-IES-SC- 24DC/500AC-2 and ELR H5-IES-SC- 24DC/500AC-9

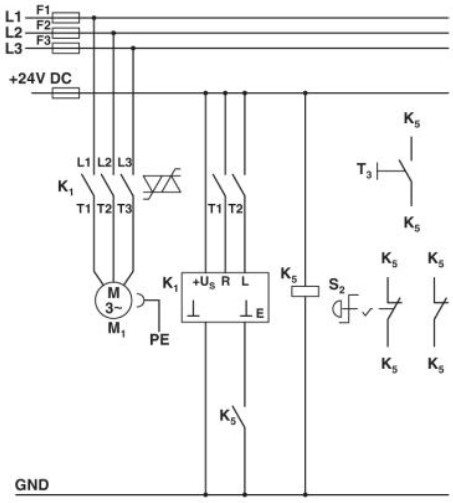
Circuit diagram



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



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



Structure with CONTACTRON
Main and control current path for "4 in 1" hybrid motor starter with reversing function according to category 3
K1 = "4 in 1" hybrid motor starter with reversing function
K5 = PSR SCP-24DC.../safety relay
T1 = Left, T2 = Right, T3 = Reset
S2 = Emergency stop

Address

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