

## Hybrid motor starter - ELR H5-I-SC- 24DC/500AC-2-SP - 2901063

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Hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 24 V DC input, 2.4 A output current, adjustable overload shutdown, class 10 tripping characteristics, and with no underload detection.

The figure shows the 9 A version



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	260.0 g
Custom tariff number	85371099
Country of origin	Germany

### 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

#### Input data

Input name	Device supply
Rated control circuit supply voltage $U_s$	24 V DC
Control supply voltage range	19.2 V DC ... 30 V DC
Rated control supply current $I_s$	40 mA
Protective circuit	Reverse polarity protection Parallel polarity protection diode
	Surge protection

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## Technical data

### Input data

Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED
Input name	Control input right/left
Rated actuating voltage $U_c$	24 V DC
Rated actuating current $I_c$	5 mA
Switching threshold	9.6 V ("0" signal)
	19.2 V ("1" signal)
Protective circuit	Reverse polarity protection
Typical turn-off time	< 30 ms

### Output data

Output name	AC output
Rated operating current at AC-51	2.4 A
Rated operating current at AC-53a	2.4 A
Leakage current	0 mA
Type of protection	Surge protection
Protective circuit/component	Varistor
Output name	Acknowledge output
Note	Confirmation: floating change-over contact, signal contact

### Connection data, control circuit

Connection name	Control circuits
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

### General

Switching frequency	$\leq 2$ Hz (Load-dependent)
Mounting position	vertical (horizontal DIN rail, motor output below)
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor
Designation	Standards/regulations
Standards/regulations	IEC 60947-1
	EN 60947-4-2

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## Technical data

### General

	IEC 61508
	ISO 13849

### 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
eCl@ss 9.0	27370905

### ETIM

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
UNSPSC 13.2	39121514

## Approvals

### Approvals

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## Approvals

Approvals

UL Listed / cUL Listed / UL Listed / cUL Listed / EAC / cULus Listed

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Ex Approvals


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Approvals submitted

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## Approval details


UL Listed 

cUL Listed 

UL Listed 

cUL Listed 

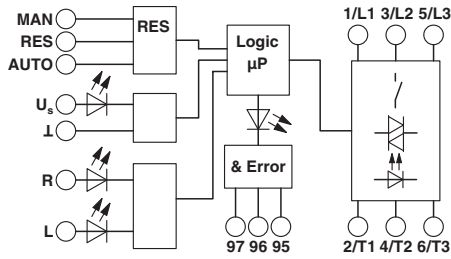
EAC

cULus Listed 

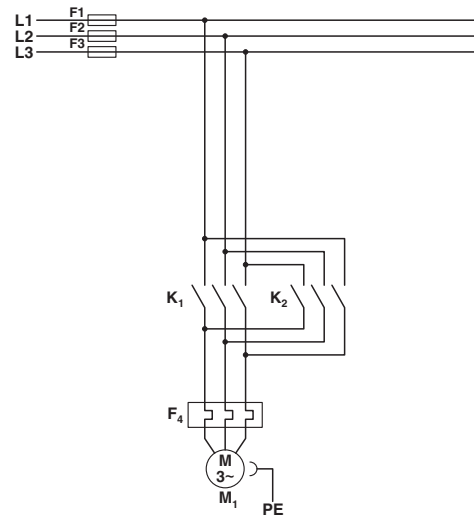
## Drawings

# Hybrid motor starter - ELR H5-I-SC- 24DC/500AC-2-SP - 2901063

Block diagram

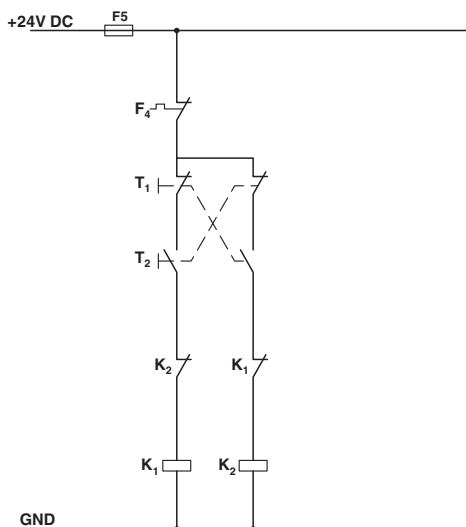


Circuit diagram



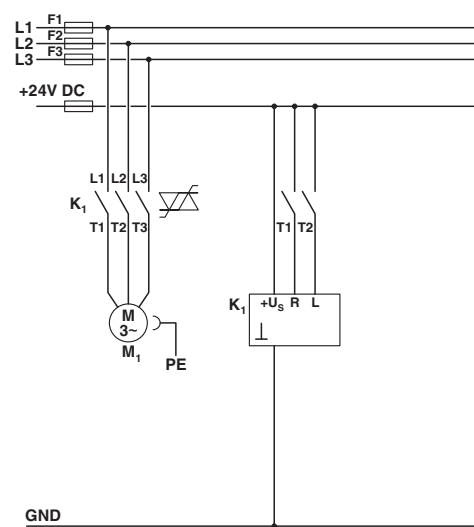
Conventional structure  
 Main current path contactor  
 K1 = Left contactor  
 K2 = Right contactor  
 F4 = Motor protection relay

Circuit diagram



Conventional structure  
 Control current path contactor  
 K1 = Left contactor

Circuit diagram



Structure with CONTACTRON  
 Main and control current path for '3 in 1' hybrid motor starter  
 K1 = '3 in 1' hybrid motor starter

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K2 = Right contactor

T1 = Right, T2 = Left

T1 = Left, T2 = Right

F4 = Motor protection relay