

"4 in 1" hybrid motor starter with reversing function, motor protection, and emergency stop

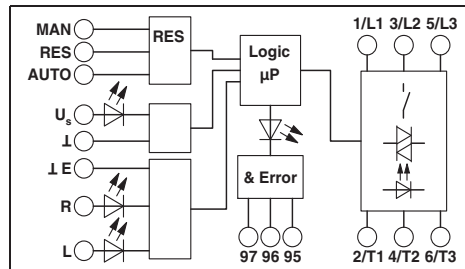
These 3-phase "4 in 1" hybrid motor starters combine four functions in one device: right contactor, left contactor, motor protection relay, and emergency stop up to category 3.

They offer the following advantages:

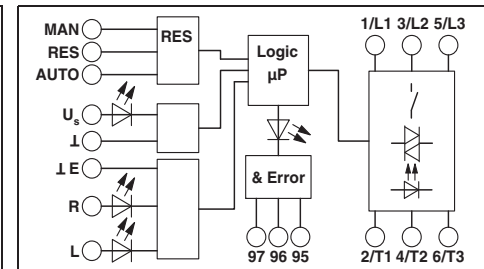
- 22.5 mm wide
- They save wiring
- Bi-metal function can be set up to 9 A
- Long service life
- Space-saving
- 3-phase loop bridging
- Safety level according to:
 - IEC 61508-1: SIL3
 - ISO 13849: PL e



For reversing 3~ AC motors
up to 550 V AC/3 x 0.6 A



For reversing 3~ AC motors
up to 550 V AC/3 x 2 A



Notes:
Type of housing: Polyamide PA non-reinforced, color: Green.
For marking systems and mounting material, see CLIPLINE catalog, part 2.

	Technical data		Technical data	
Input data	ELR H5-IES-SC- 24DC/500AC-0,6	ELR H5-IES-SC-230AC/500AC-0,6	ELR H5-IES-SC- 24DC/500AC-2	ELR H5-IES-SC-230AC/500AC-2
Rated control supply voltage U _s	24 V DC	230 V AC	24 V DC	230 V AC
Rated control supply voltage range with reference to U _s	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1
Rated control supply current I _c at U _s	40 mA	4 mA	40 mA	4 mA
Rated actuating voltage U _c R/L	24 V DC	230 V AC	24 V DC	230 V AC
Rated actuating voltage range with reference to U _c	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1
Rated actuating current I _c at U _c	3 mA	7 mA	3 mA	7 mA
Input circuit	Protection against polarity reversal, surge protection	Surge protection	Protection against polarity reversal, surge protection	Surge protection
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED		Green LED / Yellow LED / Red LED	
Output data load side				
Output voltage range	42 V AC ... 550 V AC	42 V AC ... 550 V AC	42 V AC ... 550 V AC	42 V AC ... 550 V AC
Load current	Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)	Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)
Surge current	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)
Min. load current	100 mA	100 mA	180 mA	180 mA
Residual voltage	< 0.2 V	< 0.2 V	< 0.3 V	< 0.3 V
Leakage current	0 mA	0 mA	0 mA	0 mA
Output protection	Surge protection		Surge protection	
General data				
Rated insulation voltage	500 V		500 V	
Rated surge voltage	6 kV/safe isolation	4 kV/safe isolation	6 kV/safe isolation	4 kV/safe isolation
Reversing frequency	Max. 2 Hz	Max. 2 Hz	Max. 2 Hz	Max. 2 Hz
Ambient temperature (operation)	-25°C ... 70°C		-25°C ... 70°C	
Electrical service life	3 x 10 ⁷ cycles		3 x 10 ⁷ cycles	
Standards / regulations	DIN EN 50178 / EN 60947		DIN EN 50178 / EN 60947	
Degree of protection according to IEC 60529/EN 60529	IP20		IP20	
Mounting position	Vertical (horizontal DIN rail)		Vertical (horizontal DIN rail)	
Mounting	Can be aligned with spacing = 20 mm		Can be aligned with spacing = 20 mm	
Screw connection solid / stranded / AWG	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12		0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
Dimensions	22.5 mm / 99 mm / 114.5 mm		22.5 mm / 99 mm / 114.5 mm	
Safety data				
EC-type examination certificate according to ATEX	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145

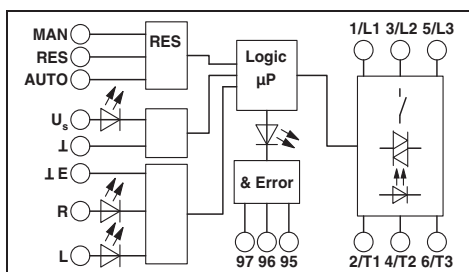
	Ordering data			Ordering data		
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
"4 in 1" hybrid motor starter, incl. right contactor, left contactor, motor protection relay, and emergency stop	ELR H5-IES-SC- 24DC/500AC-0,6	2900582	1	ELR H5-IES-SC- 24DC/500AC-2	2900414	1
	ELR H5-IES-SC-230AC/500AC-0,6	2900692	1	ELR H5-IES-SC-230AC/500AC-2	2900420	1
"4 in 1" hybrid motor starter, incl. right contactor, left contactor, motor protection relay, and emergency stop, terminals L1, L2, L3 and T1, T2, T3 rotated				ELR W3- 24DC/500AC- 2I	2297031	1
				ELR W3-230AC/500AC- 2I	2297044	1

H
D W



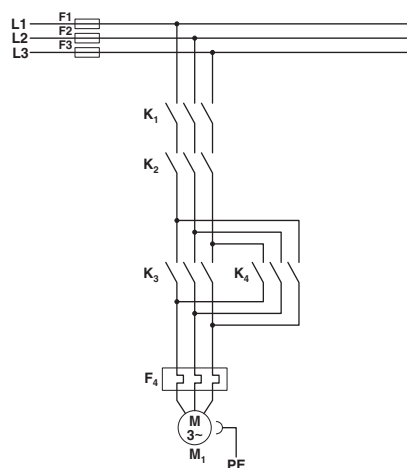
For reversing 3~ AC motors
up to 550 V AC/3 x 9 A

CB
Ex: Ex



Conventional structure

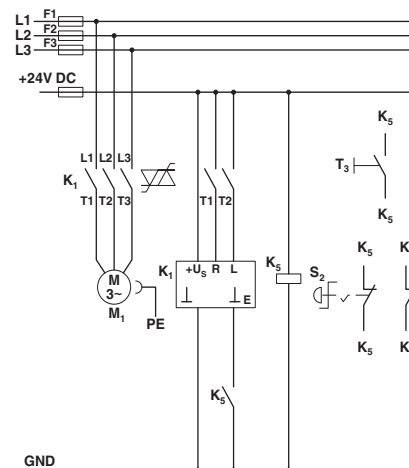
Main current path reversing contactor according to category 3



K1 + K2 = Emergency stop contactor
K3 = Left contactor
K4 = Right contactor
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

Technical data

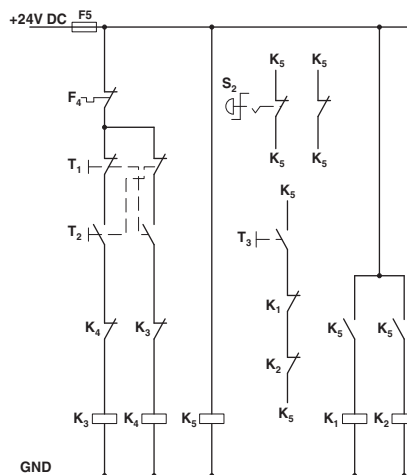
ELR H5-IES-SC- 24DC/500AC-9	ELR H5-IES-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
40 mA	4 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
42 V AC ... 550 V AC	42 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.5 V	< 0.5 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation
Max. 2 Hz	Max. 2 Hz
-25°C ... 70°C	
3 x 10 ⁷ cycles	
DIN EN 50178 / EN 60947	
IP20	
Vertical (horizontal DIN rail)	
Can be aligned with spacing = 20 mm	
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
22.5 mm / 99 mm / 114.5 mm	
Ex II (2) G, Ex II (2) D	Ex II (2) G, Ex II (2) D
PTB 07 ATEX 3145	PTB 07 ATEX 3145

Ordering data

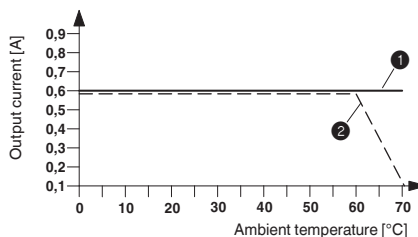
Type	Order No.	Pcs. / Pkt.
ELR H5-IES-SC- 24DC/500AC-9	2900421	1
ELR H5-IES-SC-230AC/500AC-9	2900422	1
ELR W3- 24DC/500AC- 9I	2297057	1
ELR W3-230AC/500AC- 9I	2297060	1

Conventional structure

Control current path reversing contactor according to category 3

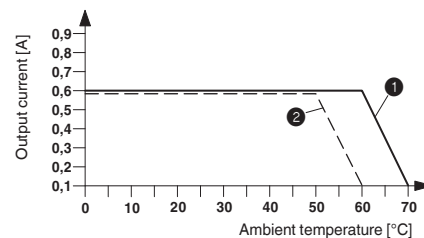


K1 + K2 = Emergency stop contactor
K3 = Left contactor
K4 = Right contactor
K5 = PSR SCP-24DC.../Safety relay
T1 = Left, T2 = Right, T3 = Reset
S2 = Emergency stop
F4 = Motor protection relay

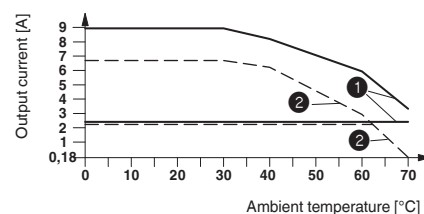


Derating curve ELR H5-IES-SC-24DC/500AC-0,6
100% operating time

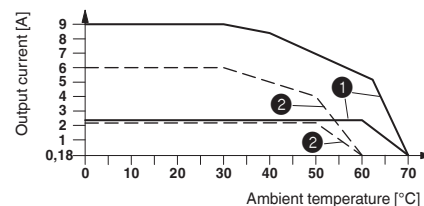
① Aligned with > 20 mm spacing
② Aligned without spacing



Derating curve ELR H5-IES-SC-230AC/500AC-0,6
100% operating time



Derating curve ELR H5-IES-SC-24DC/500AC-2 and
ELR H5-IES-SC-24DC/500AC-9
100% operating time



Derating curve ELR H5-IES-SC-230AC/500AC-2 and
ELR H5-IES-SC-230AC/500AC-9
100% operating time

"3 in 1" hybrid motor starter with motor protection and emergency stop

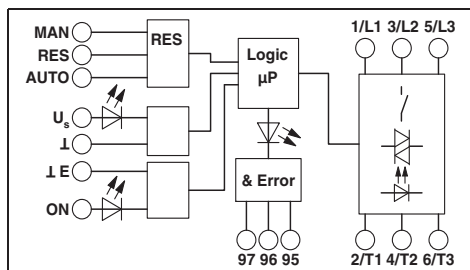
These 3-phase "3 in 1" hybrid motor starters combine three functions in one device: right contactor, motor protection relay, and emergency stop up to category 3.

They offer the following advantages:

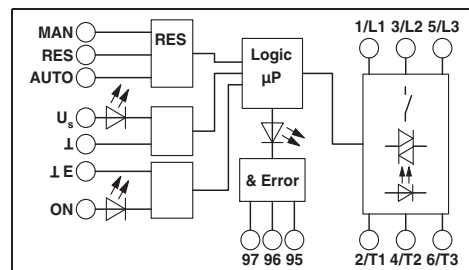
- 22.5 mm wide
- They save wiring
- Bi-metal function can be set up to 9 A
- Long service life
- Space-saving
- 3-phase loop bridging
- Safety level according to:
 - IEC 61508-1: SIL3
 - ISO 13849: PL e



For starting 3~ AC motors
up to 550 V AC/3 x 0.6 A



For starting 3~ AC motors
up to 550 V AC/3 x 2 A

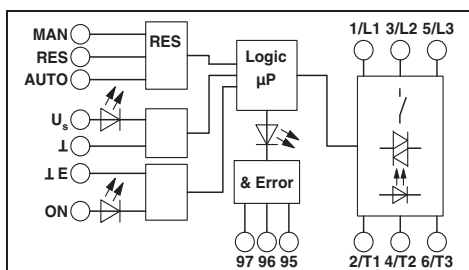


Notes:
Type of housing: Polyamide PA non-reinforced, color: Green.
For marking systems and mounting material, see CLIPLINE catalog, part 2.

	Technical data		Technical data			
Input data	ELR H3-IES-SC- 24DC/500AC-0,6	ELR H3-IES-SC-230AC/500AC-0,6	ELR H3-IES-SC- 24DC/500AC-2	ELR H3-IES-SC-230AC/500AC-2		
Rated control supply voltage U _S	24 V DC	230 V AC	24 V DC	230 V AC		
Rated control supply voltage range with reference to U _S	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1		
Rated control supply current I _S at U _S	40 mA	4 mA	40 mA	4 mA		
Rated actuation voltage U _C ON	24 V DC	230 V AC	24 V DC	230 V AC		
Rated actuating voltage range with reference to U _C	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1		
Rated actuating current I _C at U _C	3 mA	7 mA	3 mA	7 mA		
Input circuit	Protection against polarity reversal, surge protection	Surge protection	Protection against polarity reversal, surge protection	Surge protection		
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED		Green LED / Yellow LED / Red LED			
Output data load side						
Output voltage range	42 V AC ... 550 V AC	42 V AC ... 550 V AC	42 V AC ... 550 V AC	42 V AC ... 550 V AC		
Load current	Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)	Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)		
Surge current	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)		
Min. load current	100 mA	100 mA	180 mA	180 mA		
Residual voltage	< 0.2 V	< 0.2 V	< 0.3 V	< 0.3 V		
Leakage current	0 mA	0 mA	0 mA	0 mA		
Output protection	Surge protection		Surge protection			
General data						
Rated insulation voltage	500 V		500 V			
Rated surge voltage	6 kV/safe isolation	4 kV/safe isolation	6 kV/safe isolation	4 kV/safe isolation		
Switching frequency	Max. 2 Hz	Max. 2 Hz	Max. 2 Hz	Max. 2 Hz		
Ambient temperature (operation)	-25°C ... 70°C		-25°C ... 70°C			
Electrical service life	3 x 10 ⁷ cycles		3 x 10 ⁷ cycles			
Standards / regulations	DIN EN 50178 / EN 60947		DIN EN 50178 / EN 60947			
Degree of protection according to IEC 60529/EN 60529	IP20		IP20			
Mounting position	Vertical (horizontal DIN rail)		Vertical (horizontal DIN rail)			
Mounting	Can be aligned with spacing = 20 mm		Can be aligned with spacing = 20 mm			
Screw connection solid / stranded / AWG	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12		0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12			
Dimensions	22.5 mm / 99 mm / 114.5 mm		22.5 mm / 99 mm / 114.5 mm			
Safety data						
EC-type examination certificate according to ATEX	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145	Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145		
	Ordering data			Ordering data		
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
"3 in 1" hybrid motor starter, incl. right contactor, motor protection relay, and emergency stop	ELR H3-IES-SC- 24DC/500AC-0,6	2900566	1	ELR H3-IES-SC- 24DC/500AC-2	2900567	1
	ELR H3-IES-SC-230AC/500AC-0,6	2900689	1	ELR H3-IES-SC-230AC/500AC-2	2900568	1



**For starting 3~ AC motors
up to 550 V AC/3 x 9 A**



Technical data

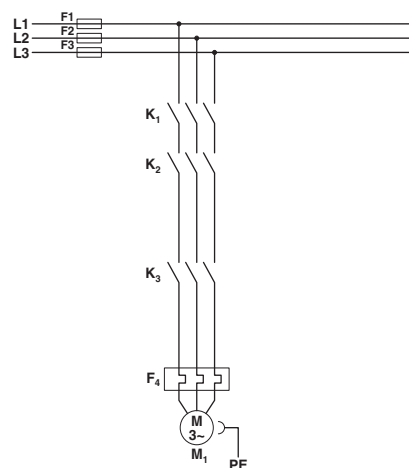
ELR H3-IES-SC- 24DC/500AC-9	ELR H3-IES-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
40 mA	4 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
42 V AC ... 550 V AC	42 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.5 V	< 0.5 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation
Max. 2 Hz	Max. 2 Hz
-25°C ... 70°C	
3 x 10 ⁷ cycles	
DIN EN 50178 / EN 60947	
IP20	
Vertical (horizontal DIN rail)	
Can be aligned with spacing = 20 mm	
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
22.5 mm / 99 mm / 114.5 mm	
 II (2) G, II (2) D	 II (2) G, II (2) D
PTB 07 ATEX 3145	PTB 07 ATEX 3145

Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H3-IES-SC- 24DC/500AC-9	2900569	1
ELR H3-IES-SC-230AC/500AC-9	2900570	1

Conventional structure

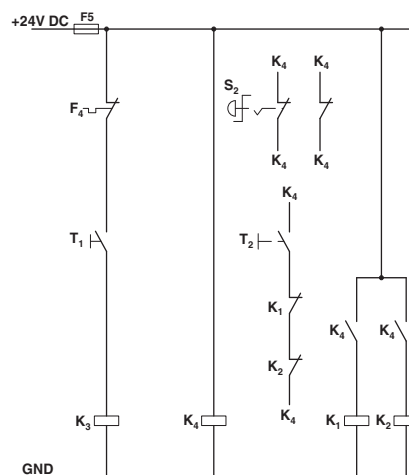
Main current path contactor according to category 3



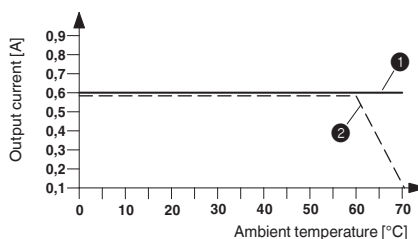
K1 + K2 = Emergency stop contactor
K3 = Right contactor
F4 = Motor protection relay

Conventional structure

Control current path 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

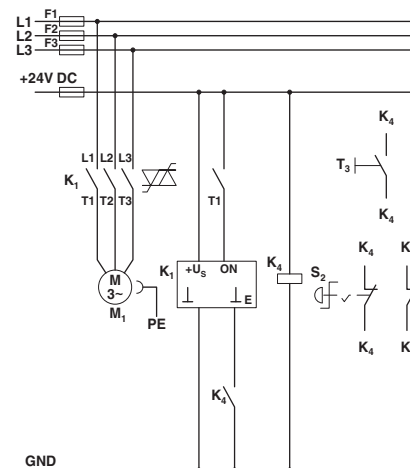


Derating curve ELR H3-IES-SC-24DC/500AC-0,6
100% operating time

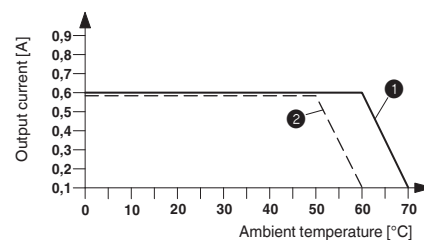
- ① Aligned with > 20 mm spacing
② Aligned without spacing

Structure with CONTACTRON

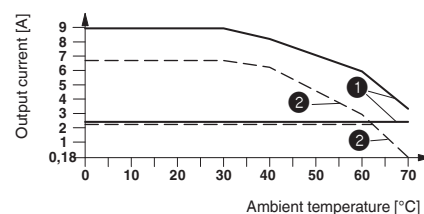
Main and control current path for "3 in 1" hybrid motor starter according to category 3



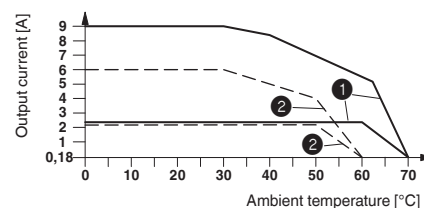
K1 = "3 in 1" hybrid motor starter
K4 = PSR SCP-24DC.../Safety relay
T1 = Right, T3 = Reset
S2 = Emergency stop



Derating curve ELR H3-IES-SC-230AC/500AC-0,6
100% operating time



**Derating curve ELR H3-IES-SC-24DC/500AC-2 and
ELR H3-IES-SC-24DC/500AC-9
100% operating time**



Derating curve ELR H3-IES-SC-230AC/500AC-2 and
ELR H3-IES-SC-230AC/500AC-9
100% operating time

"3 in 1" hybrid motor starter with reversing function and motor protection

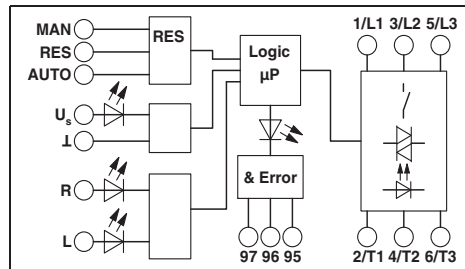
These 3-phase "3 in 1" hybrid motor starters combine three functions in one device: right contactor, left contactor, and motor protection relay.

They offer the following advantages:

- 22.5 mm wide
- They save wiring
- Bi-metal function can be set up to 9 A
- Long service life
- Space-saving
- 3-phase loop bridging



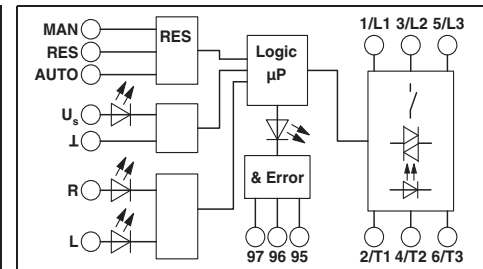
For starting 3~ AC motors
up to 550 V AC/3 x 0.6 A



N



For starting 3~ AC motors
up to 550 V AC/3 x 2 A



N

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 at U_s	35 mA
Rated actuation voltage U_C ON	24 V DC
Rated actuating voltage range with reference to U_C	0.8 ... 1.25
Rated actuating current I_C at U_C	3 mA
Input circuit	Protection against polarity reversal, surge protection
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED
Output data load side	
Output voltage range	48 V AC ... 550 V AC
Load current	Max. 600 mA (see derating curve)
Surge current	100 A (t = 10 ms)
Min. load current	100 mA
Residual voltage	< 0.2 V
Leakage current	0 mA
Output protection	Surge protection
General data	
Rated insulation voltage	500 V
Rated surge voltage	6 kV/safe isolation
Switching frequency	-25°C ... 70°C
Ambient temperature (operation)	3 x 10 ⁷ cycles
Electrical service life	DIN EN 50178 / EN 60947
Standards / regulations	IP20
Degree of protection according to IEC 60529/EN 60529	Vertical (horizontal DIN rail)
Mounting position	Can be aligned with spacing = 20 mm
Mounting	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
Screw connection solid / stranded / AWG	22.5 mm / 99 mm / 114.5 mm
Dimensions	W / H / D

Technical data	
ELR H5-I-SC- 24DC/500AC-0,6	ELR H5-I-SC-230AC/500AC-0,6
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	Green LED / Yellow LED / Red LED
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
100 mA	100 mA
< 0.2 V	< 0.2 V
0 mA	0 mA
Surge protection	Surge protection
500 V	500 V
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	-25°C ... 70°C
3 x 10 ⁷ cycles	3 x 10 ⁷ cycles
DIN EN 50178 / EN 60947	DIN EN 50178 / EN 60947
IP20	IP20
Vertical (horizontal DIN rail)	Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm	Can be aligned with spacing = 20 mm
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
22.5 mm / 99 mm / 114.5 mm	22.5 mm / 99 mm / 114.5 mm

Technical data	
ELR H5-I-SC- 24DC/500AC-2	ELR H5-I-SC-230AC/500AC-2
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	Green LED / Yellow LED / Red LED
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
180 mA	180 mA
< 0.3 V	< 0.3 V
0 mA	0 mA
Surge protection	Surge protection
500 V	500 V
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	-25°C ... 70°C
3 x 10 ⁷ cycles	3 x 10 ⁷ cycles
DIN EN 50178 / EN 60947	DIN EN 50178 / EN 60947
IP20	IP20
Vertical (horizontal DIN rail)	Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm	Can be aligned with spacing = 20 mm
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
22.5 mm / 99 mm / 114.5 mm	22.5 mm / 99 mm / 114.5 mm

Ordering data	
Type	Order No.
ELR H5-I-SC- 24DC/500AC-0,6	2900573
ELR H5-I-SC-230AC/500AC-0,6	2900691

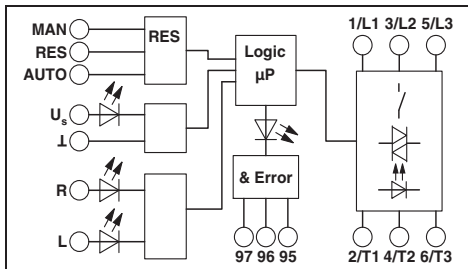
Ordering data	
Type	Order No.
ELR H5-I-SC- 24DC/500AC-2	2900574
ELR H5-I-SC-230AC/500AC-2	2900575

Ordering data	
Type	Order No.
ELR H5-I-SC- 24DC/500AC-2	2900574
ELR H5-I-SC-230AC/500AC-2	2900575

"3 in 1" hybrid motor starter, incl. right contactor, left contactor, and motor protection relay



For starting 3~ AC motors
up to 550 V AC/3 x 9 A



Technical data

ELR H5-I-SC- 24DC/500AC-9	ELR H5-I-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.5 V	< 0.5 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation

-25°C ... 70°C
3 x 10⁷ cycles
DIN EN 50178 / EN 60947
IP20
Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm
0.14 - 2.5 mm² / 0.14 - 2.5 mm² / 26 - 12
22.5 mm / 99 mm / 114.5 mm

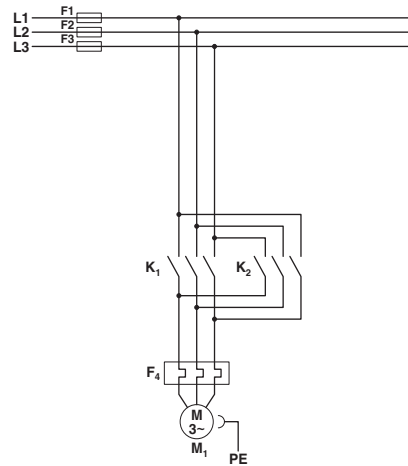
Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H5-I-SC- 24DC/500AC-9	2900576	1
ELR H5-I-SC-230AC/500AC-9	2900578	1

N

Conventional structure

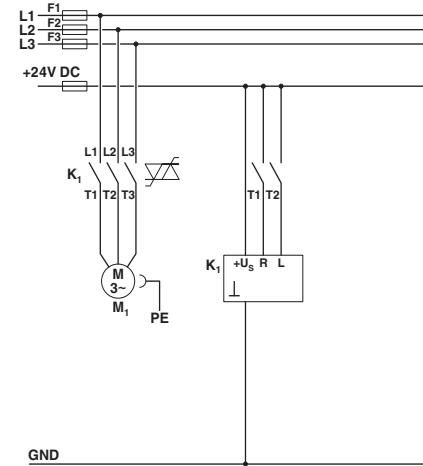
Main current path contactor according to category 3



K1 = Left contactor
K2 = Right contactor
F4 = Motor protection relay

Structure with CONTACTRON

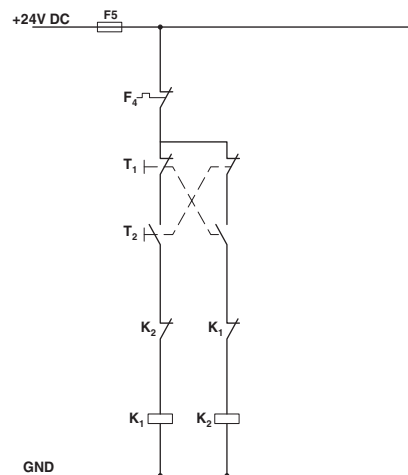
Main and control current path for "3 in 1" hybrid motor starter according to category 3



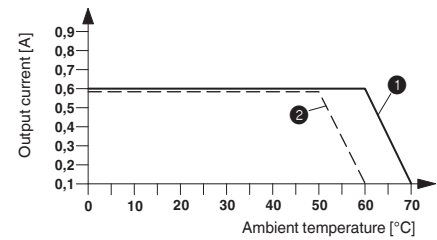
K1 = "3 in 1" hybrid motor starter
T1 = Right, T2 = Left, T3 = Reset

Conventional structure

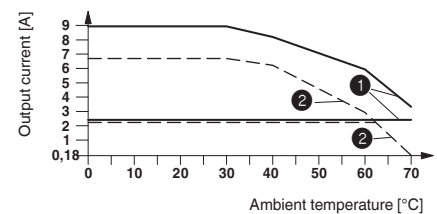
Control current path contactor according to category 3



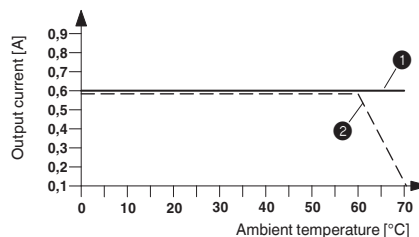
K1 = Left contactor
K2 = Right contactor
T1 = Right, T2 = Left, T3 = Reset
F4 = Motor protection relay



Derating curve ELR H5-I-SC-230AC/500AC-0,6
100% operating time

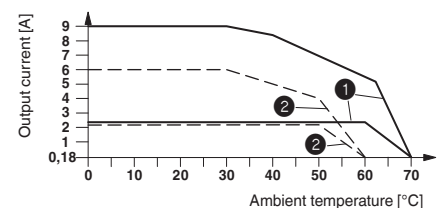


Derating curve ELR H5-I-SC-24DC/500AC-2 and
ELR H5-I-SC-24DC/500AC-99
100% operating time



Derating curve ELR H5-I-SC-24DC/500AC-0,6
100% operating time

① Aligned with > 20 mm spacing
② Aligned without spacing



Derating curve ELR H5-I-SC-230AC/500AC-2 and
ELR H5-I-SC-230AC/500AC-9
100% operating time

"3 in 1" hybrid motor starter with reversing function and emergency stop

These 3-phase "3 in 1" hybrid motor starters combine three functions in one device: right contactor, left contactor, and emergency stop up to category 3.

They offer the following advantages:

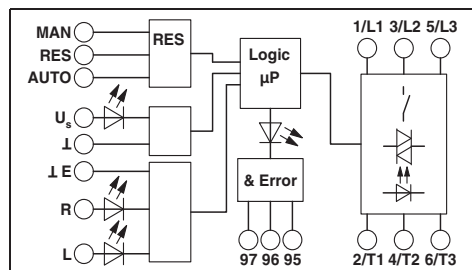
- 22.5 mm wide
- They save wiring
- Up to 9 A
- Long service life
- Space-saving
- 3-phase loop bridging

Safety level according to:

- IEC 61508-1: SIL3
- ISO 13849: PL e



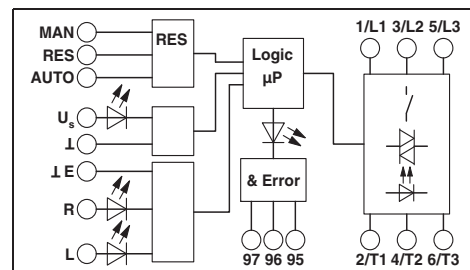
For reversing 3~ AC motors
up to 550 V AC/3 x 0.6 A



N



For reversing 3~ AC motors
up to 550 V AC/3 x 2 A

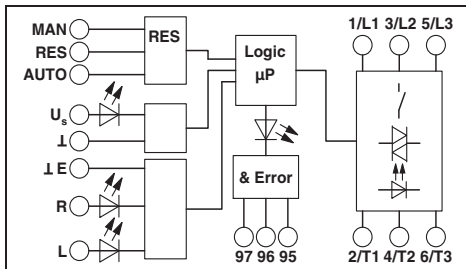


N

	Technical data		Technical data			
Input data	ELR H5-ES-SC- 24DC/500AC-0,6	ELR H5-ES-SC-230AC/500AC-0,6	ELR H5-ES-SC- 24DC/500AC-2	ELR H5-ES-SC-230AC/500AC-2		
Rated control supply voltage U _s	24 V DC	230 V AC	24 V DC	230 V AC		
Rated control supply voltage range with reference to U _s	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1		
Rated control supply current I _s at U _s	35 mA	3.5 mA	35 mA	3.5 mA		
Rated actuation voltage U _c ON	24 V DC	230 V AC	24 V DC	230 V AC		
Rated actuating voltage range with reference to U _c	0.8 ... 1.25	0.4 ... 1.1	0.8 ... 1.25	0.4 ... 1.1		
Rated actuating current I _c at U _c	3 mA	7 mA	3 mA	7 mA		
Input circuit	Protection against polarity reversal, surge protection	Surge protection	Protection against polarity reversal, surge protection	Surge protection		
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED		Green LED / Yellow LED / Red LED			
Output data load side						
Output voltage range	48 V AC ... 550 V AC	48 V AC ... 550 V AC	48 V AC ... 550 V AC	48 V AC ... 550 V AC		
Load current	Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)	Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)		
Surge current	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)	100 A (t = 10 ms)		
Min. load current	100 mA	100 mA	180 mA	180 mA		
Residual voltage	< 0.3 V	< 0.3 V	< 0.3 V	< 0.3 V		
Leakage current	0 mA	0 mA	0 mA	0 mA		
Output protection	Surge protection		Surge protection			
General data						
Rated insulation voltage	500 V		500 V			
Rated surge voltage	6 kV/safe isolation	4 kV/safe isolation	6 kV/safe isolation	4 kV/safe isolation		
Switching frequency						
Ambient temperature (operation)	-25°C ... 70°C		-25°C ... 70°C			
Electrical service life	3 x 10 ⁷ cycles		3 x 10 ⁷ cycles			
Standards / regulations	DIN EN 50178 / EN 60947		DIN EN 50178 / EN 60947			
Degree of protection according to IEC 60529/EN 60529	IP20		IP20			
Mounting position	Vertical (horizontal DIN rail)		Vertical (horizontal DIN rail)			
Mounting	Can be aligned with spacing = 20 mm		Can be aligned with spacing = 20 mm			
Screw connection solid / stranded / AWG	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12		0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12			
Dimensions	22.5 mm / 99 mm / 114.5 mm		22.5 mm / 99 mm / 114.5 mm			
Safety data						
EC-type examination certificate according to ATEX	 PTB 07 ATEX 3145	 PTB 07 ATEX 3145	 PTB 07 ATEX 3145	 PTB 07 ATEX 3145		
Ordering data						
Description	Type	Order No.	Pcs. / Pkt.			
"3 in 1" hybrid motor starter, incl. right contactor, left contactor, and emergency stop	ELR H5-ES-SC- 24DC/500AC-0,6	2900558	1	ELR H5-ES-SC- 24DC/500AC-2	2900559	1
	ELR H5-ES-SC-230AC/500AC-0,6	2900688	1	ELR H5-ES-SC-230AC/500AC-2	2900560	1



For reversing 3~ AC motors
up to 550 V AC/3 x 9 A



Technical data

ELR H5-ES-SC- 24DC/500AC-9	ELR H5-ES-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.3 V	< 0.3 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation

-25°C ... 70°C
3 x 10⁷ cycles
DIN EN 50178 / EN 60947
IP20
Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm
0.14 - 2.5 mm² / 0.14 - 2.5 mm² / 26 - 12
22.5 mm / 99 mm / 114.5 mm

Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145
Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145

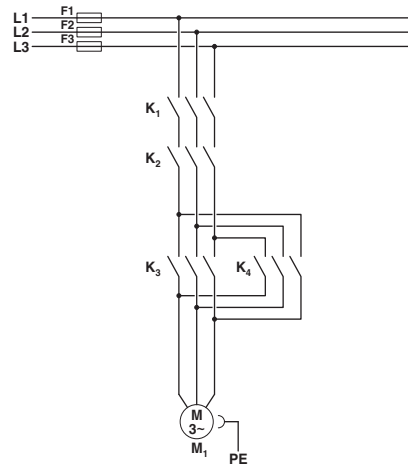
Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H5-ES-SC- 24DC/500AC-9	2900561	1
ELR H5-ES-SC-230AC/500AC-9	2900562	1

N

Conventional structure

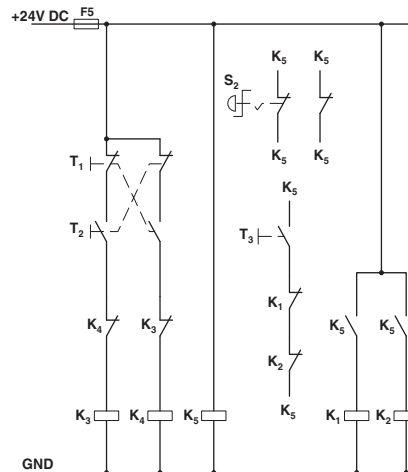
Main current path contactor according to category 3



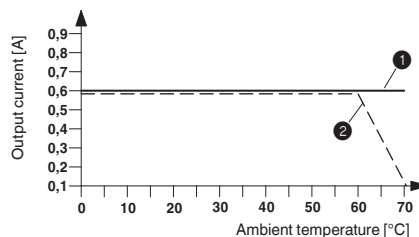
K1 + K2 = Emergency stop contactor
K3 = Left contactor
K4 = Right contactor

Conventional structure

Control current path 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

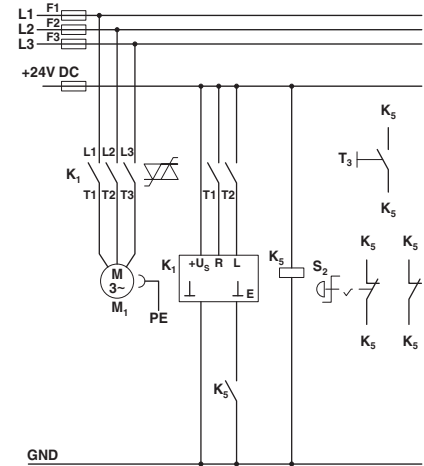


Derating curve ELR H5-ES-SC-24DC/500AC-0,6
100% operating time

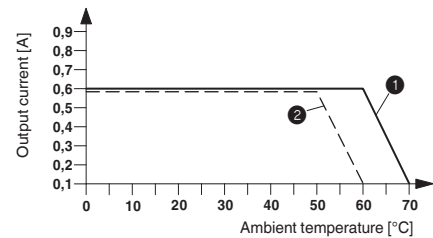
① Aligned with > 20 mm spacing
② Aligned without spacing

Structure with CONTACTRON

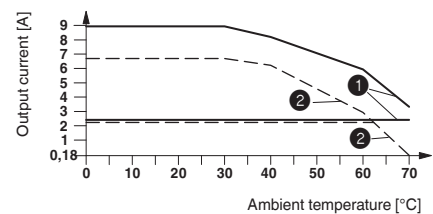
Main and control current path for "3 in 1" hybrid motor starter with reversing function according to category 3



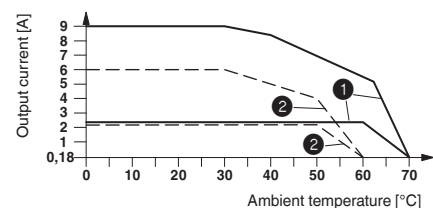
K1 = "3 in 1" hybrid motor starter with reversing function
K5 = PSR SCP-24DC.../Safety relay
T1 = Left, T2 = Right, T3 = Reset
S2 = Emergency stop



Derating curve ELR H5-ES-SC-230AC/500AC-0,6
100% operating time



Derating curve ELR H5-ES-SC-24DC/500AC-2 and
ELR H5-ES-SC-230AC/500AC-9
100% operating time



Derating curve ELR H5-ES-SC-230AC/500AC-2 and
ELR H5-ES-SC-230AC/500AC-9
100% operating time

"2 in 1" hybrid motor starter with motor protection

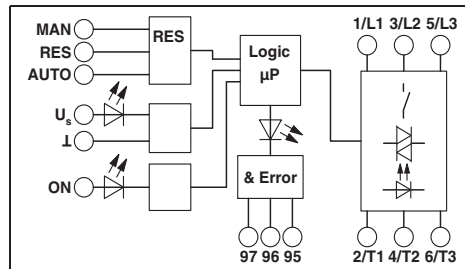
These 3-phase "2 in 1" hybrid motor starters combine two functions in one device: right contactor and motor protection.

The devices offer the following advantages:

- 22.5 mm wide
- They save wiring
- Bi-metal function can be set up to 9 A
- Low-wear switching
- Long service life
- Space-saving
- 3-phase loop bridging



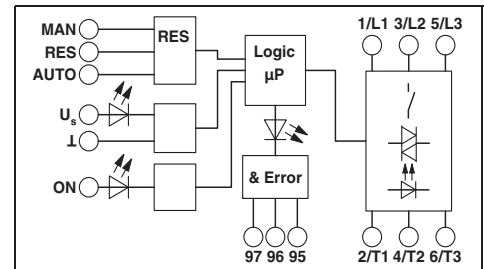
For starting 3~ AC motors
up to 550 V AC/3 x 0.6 A



N



For starting 3~ AC motors
up to 550 V AC/3 x 2 A



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 at U_s	35 mA
Rated actuation voltage U_C ON	24 V DC
Rated actuating voltage range with reference to U_C	0.8 ... 1.25
Rated actuating current I_C at U_C	3 mA
Input circuit	Protection against polarity reversal, surge protection
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED
Output data load side	
Output voltage range	48 V AC ... 550 V AC
Load current	Max. 600 mA (see derating curve)
Surge current	100 A (t = 10 ms)
Min. load current	100 mA
Residual voltage	< 0.2 V
Leakage current	0 mA
Output protection	Surge protection
General data	
Rated insulation voltage	500 V
Rated surge voltage	6 kV/safe isolation
Switching frequency	-25°C ... 70°C
Ambient temperature (operation)	3 x 10 ⁷ cycles
Electrical service life	DIN EN 50178 / EN 60947
Standards / regulations	IP20
Degree of protection according to IEC 60529/EN 60529	Vertical (horizontal DIN rail)
Mounting position	Can be aligned with spacing = 20 mm
Mounting	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
Screw connection solid / stranded / AWG	22.5 mm / 99 mm / 114.5 mm
Dimensions	W / H / D

Technical data	
ELR H3-I-SC- 24DC/500AC-0,6	ELR H3-I-SC-230AC/500AC-0,6
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	Green LED / Yellow LED / Red LED
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
100 mA	100 mA
< 0.2 V	< 0.2 V
0 mA	0 mA
Surge protection	Surge protection
500 V	500 V
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	-25°C ... 70°C
3 x 10 ⁷ cycles	3 x 10 ⁷ cycles
DIN EN 50178 / EN 60947	DIN EN 50178 / EN 60947
IP20	IP20
Vertical (horizontal DIN rail)	Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm	Can be aligned with spacing = 20 mm
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
22.5 mm / 99 mm / 114.5 mm	22.5 mm / 99 mm / 114.5 mm

Technical data	
ELR H3-I-SC- 24DC/500AC-2	ELR H3-I-SC-230AC/500AC-2
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	Green LED / Yellow LED / Red LED
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
180 mA	180 mA
< 0.3 V	< 0.3 V
0 mA	0 mA
Surge protection	Surge protection
500 V	500 V
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	-25°C ... 70°C
3 x 10 ⁷ cycles	3 x 10 ⁷ cycles
DIN EN 50178 / EN 60947	DIN EN 50178 / EN 60947
IP20	IP20
Vertical (horizontal DIN rail)	Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm	Can be aligned with spacing = 20 mm
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12
22.5 mm / 99 mm / 114.5 mm	22.5 mm / 99 mm / 114.5 mm

Ordering data	
Type	Order No.
ELR H3-I-SC- 24DC/500AC-0,6	2900542
ELR H3-I-SC-230AC/500AC-0,6	2900685

Ordering data	
Type	Order No.
ELR H3-I-SC- 24DC/500AC-2	2900543
ELR H3-I-SC-230AC/500AC-2	2900544

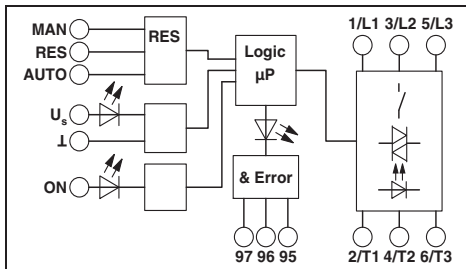
Description
"2 in 1" hybrid motor starter, incl. right contactor and motor protection relay

Type	Order No.	Pcs. / Pkt.
ELR H3-I-SC- 24DC/500AC-0,6	2900542	1
ELR H3-I-SC-230AC/500AC-0,6	2900685	1

Type	Order No.	Pcs. / Pkt.
ELR H3-I-SC- 24DC/500AC-2	2900543	1
ELR H3-I-SC-230AC/500AC-2	2900544	1



For starting 3~ AC motors
up to 550 V AC/3 x 9 A



Technical data

ELR H3-I-SC- 24DC/500AC-9	ELR H3-I-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.5 V	< 0.5 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation

-25°C ... 70°C
3 x 10⁷ cycles
DIN EN 50178 / EN 60947
IP20
Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm
0.14 - 2.5 mm² / 0.14 - 2.5 mm² / 26 - 12
22.5 mm / 99 mm / 114.5 mm

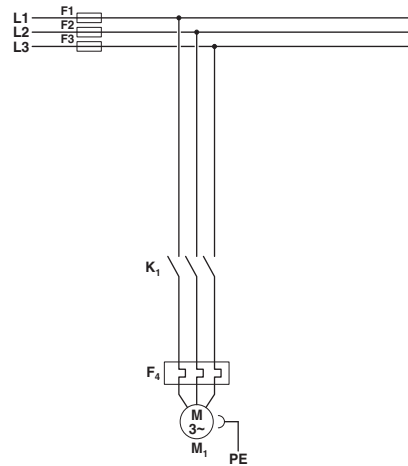
Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H3-I-SC- 24DC/500AC-9	2900545	1
ELR H3-I-SC-230AC/500AC-9	2900546	1

N

Conventional structure

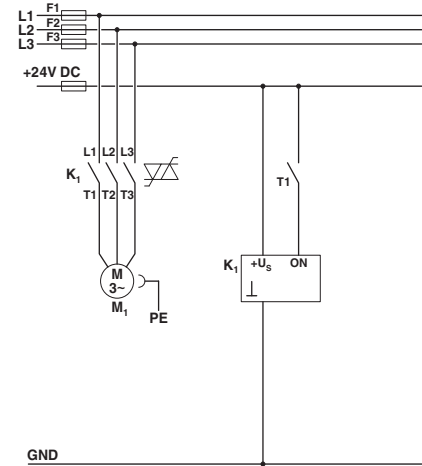
Main current path reversing contactor according to category 3



K1 = Right contactor
F4 = Motor protection relay

Structure with CONTACTRON

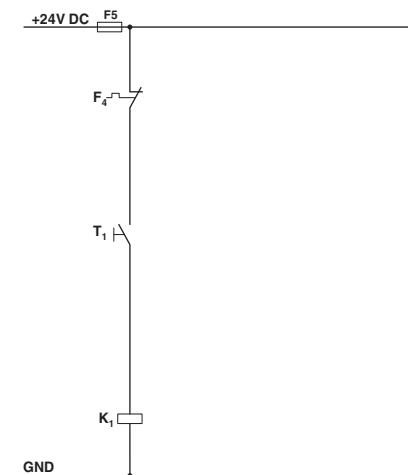
Main and control current path for "2 in 1" hybrid motor starter according to category 3



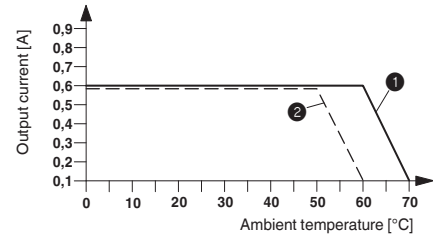
K1 = "2 in 1" hybrid motor starter
T1 = Right, T3 = Reset

Conventional structure

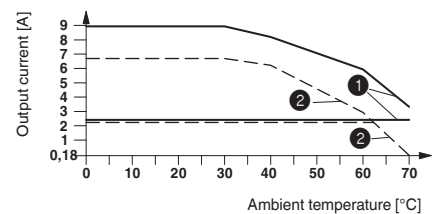
Control current path contactor according to category 3



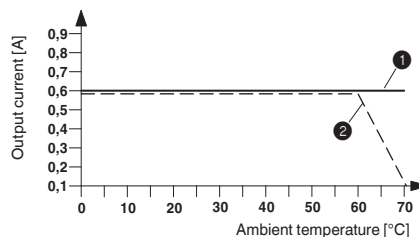
K1 = Right contactor
T1 = Right, T3 = Reset
F4 = Motor protection relay



Derating curve ELR H3-I-SC-230AC/500AC-0,6
100% operating time

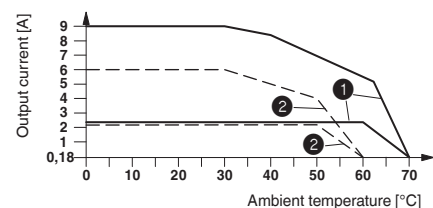


Derating curve ELR H3-I-SC-24DC/500AC-2 and
ELR H3-I-SC-24DC/500AC-9
100% operating time



Derating curve ELR H3-I-SC-24DC/500AC-0,6
100% operating time

① Aligned with > 20 mm spacing
② Aligned without spacing



Derating curve ELR H3-I-SC-230AC/500AC-2 and
ELR H3-I-SC-230AC/500AC-9
100% operating time

"2 in 1" hybrid motor starter with emergency stop

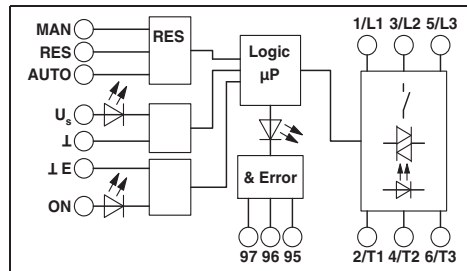
These 3-phase "2 in 1" hybrid motor starters combine two functions in one device: right contactor and emergency stop up to category 3.

The devices offer the following advantages:

- 22.5 mm wide
- They save wiring
- Up to 9 A
- Low-wear switching
- Long service life
- Space-saving
- 3-phase loop bridging
- Safety level according to:
 - IEC 61508-1: SIL3
 - ISO 13849: PL e
 - 3-phase loop bridging



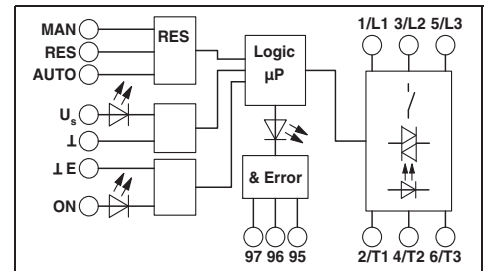
For starting 3~ AC motors
up to 550 V AC/3 x 0.6 A



N



For starting 3~ AC motors
up to 550 V AC/3 x 2 A



Input data	
Rated control supply voltage U_s	
Rated control supply voltage range with reference to U_s	
Rated control supply current I_s at U_s	
Rated actuation voltage U_C ON	
Rated actuating voltage range with reference to U_C	
Rated actuating current I_C at U_C	
Input circuit	
Operating voltage / status / error indicator	
Output data load side	
Output voltage range	
Load current	
Surge current	
Min. load current	
Residual voltage	
Leakage current	
Output protection	
General data	
Rated insulation voltage	
Rated surge voltage	
Switching frequency	
Ambient temperature (operation)	
Electrical service life	
Standards / regulations	
Degree of protection according to IEC 60529/EN 60529	
Mounting position	
Mounting	
Screw connection solid / stranded / AWG	
Dimensions	W / H / D
Safety data	
EC-type examination certificate according to ATEX	

Technical data	
ELR H3-ES-SC- 24DC/500AC-0,6	ELR H3-ES-SC-230AC/500AC-0,6
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 600 mA (see derating curve)	Max. 600 mA (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
100 mA	100 mA
< 0.3 V	< 0.2 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	
3 x 10 ⁷ cycles	
DIN EN 50178 / EN 60947	
IP20	
Vertical (horizontal DIN rail)	
Can be aligned with spacing = 20 mm	
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
22.5 mm / 99 mm / 114.5 mm	
Ex II (2) G, Ex II (2) D	Ex II (2) G, Ex II (2) D
PTB 07 ATEX 3145	PTB 07 ATEX 3145

Technical data	
ELR H3-ES-SC- 24DC/500AC-2	ELR H3-ES-SC-230AC/500AC-2
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 2.4 A (see derating curve)	Max. 2.4 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
180 mA	180 mA
< 0.3 V	< 0.3 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation
-25°C ... 70°C	
3 x 10 ⁷ cycles	
DIN EN 50178 / EN 60947	
IP20	
Vertical (horizontal DIN rail)	
Can be aligned with spacing = 20 mm	
0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
22.5 mm / 99 mm / 114.5 mm	
Ex II (2) G, Ex II (2) D	Ex II (2) G, Ex II (2) D
PTB 07 ATEX 3145	PTB 07 ATEX 3145

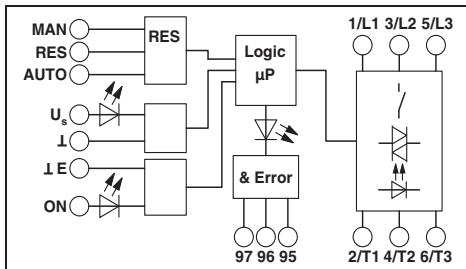
Ordering data	
Type	Order No.
ELR H3-ES-SC- 24DC/500AC-0,6	2900550
ELR H3-ES-SC-230AC/500AC-0,6	2900686

Ordering data	
Type	Order No.
ELR H3-ES-SC- 24DC/500AC-2	2900552
ELR H3-ES-SC-230AC/500AC-2	2900553

Ordering data	
Type	Order No.
ELR H3-ES-SC- 24DC/500AC-2	2900552
ELR H3-ES-SC-230AC/500AC-2	2900553



For starting 3~ AC motors
up to 550 V AC/3 x 9 A



Technical data

ELR H3-ES-SC- 24DC/500AC-9	ELR H3-ES-SC-230AC/500AC-9
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
35 mA	3.5 mA
24 V DC	230 V AC
0.8 ... 1.25	0.4 ... 1.1
3 mA	7 mA
Protection against polarity reversal, surge protection	Surge protection
Green LED / Yellow LED / Red LED	
48 V AC ... 550 V AC	48 V AC ... 550 V AC
Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
100 A (t = 10 ms)	100 A (t = 10 ms)
1.5 A	1.5 A
< 0.5 V	< 0.5 V
0 mA	0 mA
Surge protection	
500 V	
6 kV/safe isolation	4 kV/safe isolation

-25°C ... 70°C
3 x 10⁷ cycles
DIN EN 50178 / EN 60947
IP20
Vertical (horizontal DIN rail)
Can be aligned with spacing = 20 mm
0.14 - 2.5 mm² / 0.14 - 2.5 mm² / 26 - 12
22.5 mm / 99 mm / 114.5 mm

Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145
Ex II (2) G, Ex II (2) D PTB 07 ATEX 3145

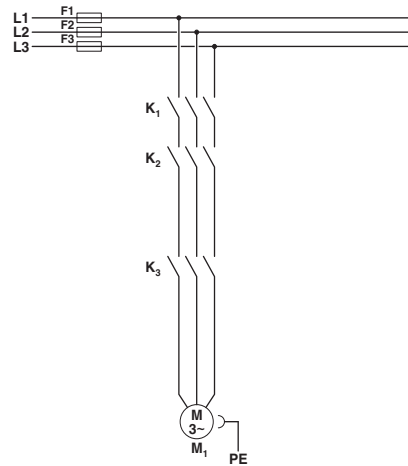
Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H3-ES-SC- 24DC/500AC-9	2900554	1
ELR H3-ES-SC-230AC/500AC-9	2900555	1

N

Conventional structure

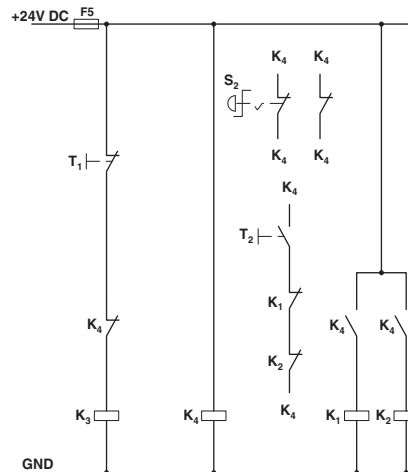
Main current path contactor according to category 3



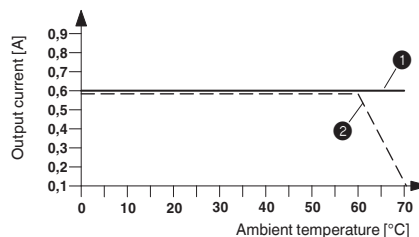
K1 + K2 = Emergency stop contactor
K3 = Right contactor

Conventional structure

Control current path 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

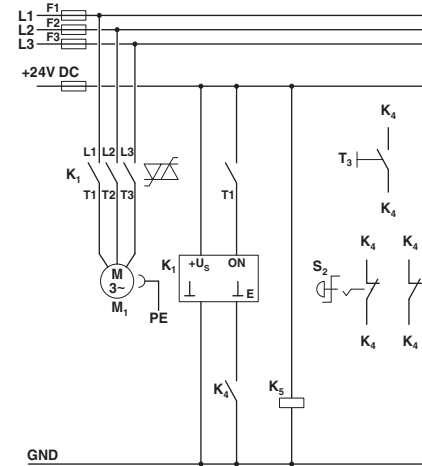


Derating curve ELR H3-ES-SC-24DC/500AC-0,6
100% operating time

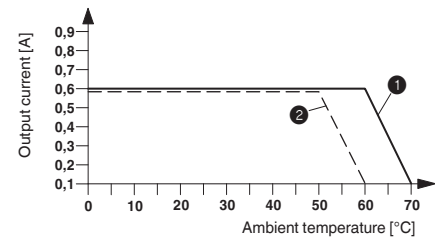
- 1 Aligned with > 20 mm spacing
- 2 Aligned without spacing

Structure with CONTACTRON

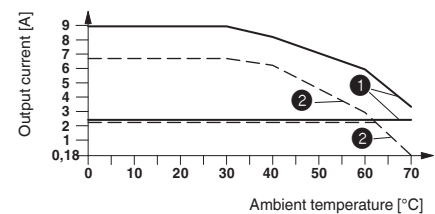
Main and control current path for "2 in 1" hybrid motor starter according to category 3



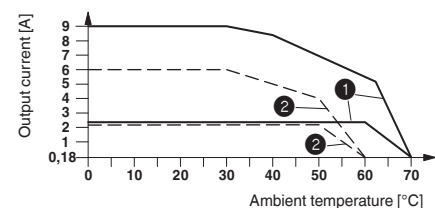
K1 = "2 in 1" hybrid motor starter
K4 = PSR SCP-24DC.../Safety relay
T1 = Right, T3 = Reset
S2 = Emergency stop



Derating curve ELR H3-ES-SC-230AC/500AC-0,6
100% operating time



Derating curve ELR H3-ES-SC-24DC/500AC-2 and
ELR H3-ES-SC-230AC/500AC-9
100% operating time



Derating curve ELR H3-ES-SC-230AC/500AC-2 and
ELR H3-ES-SC-230AC/500AC-9
100% operating time

"2 in 1" hybrid motor starter with reversing function

3-phase hybrid motor starter for reversing three-phase induction motors

The devices offer the following advantages:

- 22.5 mm wide
- They save wiring
- Up to 9 A
- Low-wear switching
- Long service life
- Space-saving
- 3-phase loop bridging

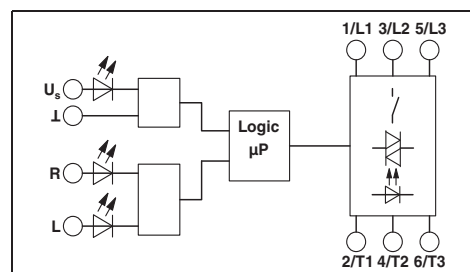
Notes:

Type of housing:
Polyamide PA non-reinforced, color: Green.

For marking systems and mounting material, see
CLIPLINE catalog, part 2.

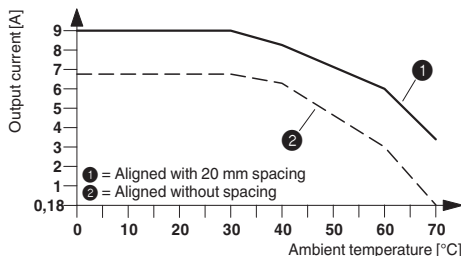


For reversing 3~ AC motors
up to 550 V AC/3 x 9 A

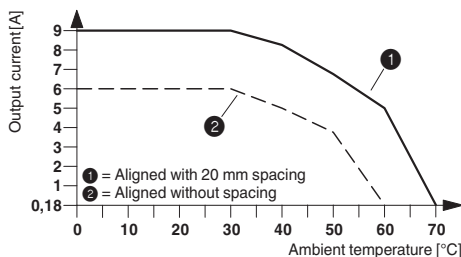


Technical data

Input data	ELR H5-SC- 24DC/500AC-9	ELR H5-SC-230AC/500AC-9
Rated control supply voltage U_s	24 V DC	230 V AC
Rated control supply voltage range with reference to U_s	0.8 ... 1.25	0.4 ... 1.1
Rated control supply current I_s at U_s	40 mA	4 mA
Rated actuating voltage U_c R/L	24 V DC	230 V AC
Rated actuating voltage range with reference to U_c	0.8 ... 1.25	0.4 ... 1.1
Rated actuating current I_c at U_c	3 mA	7 mA
Input circuit	Protection against polarity reversal, surge protection	Surge protection
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED	
Output data load side		
Output voltage range	42 V AC ... 550 V AC	42 V AC ... 550 V AC
Load current	Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
Surge current	100 A (t = 10 ms)	100 A (t = 10 ms)
Min. load current	1.5 A	1.5 A
Residual voltage	< 0.5 V	< 0.5 V
Leakage current	0 mA	0 mA
Output protection	Surge protection	
General data		
Rated insulation voltage	500 V	
Rated surge voltage	6 kV/safe isolation	4 kV/safe isolation
Reversing frequency	Max. 2 Hz	Max. 2 Hz
Ambient temperature (operation)	-25°C ... 70°C	
Electrical service life	3 x 10 ⁷ cycles	
Standards / regulations	DIN EN 50178 / EN 60947	
Degree of protection according to IEC 60529/EN 60529	IP20	
Mounting position	Vertical (horizontal DIN rail)	
Mounting	Can be aligned with spacing = 20 mm	
Screw connection solid / stranded / AWG	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
Dimensions	22.5 mm / 99 mm / 114.5 mm	



Derating curve for ELR H3-SC-24DC/500AC-9
100% operating time



Derating curve for ELR H3-SC-230AC/500AC-9
100% operating time

Description

"2 in 1" hybrid motor starter, incl. right contactor and left contactor

"1 in 1" hybrid motor starter

3-phase hybrid motor starter for starting three-phase induction motors

The devices offer the following advantages:

- 22.5 mm wide
- Low-wear switching
- Up to 9 A
- Long service life
- Space-saving
- 3-phase loop bridging

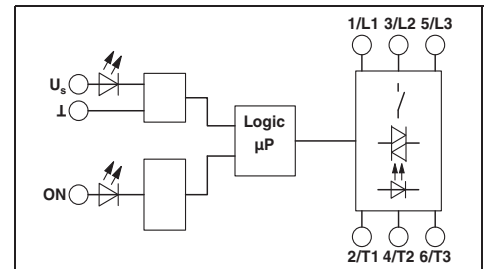
Notes:

Type of housing:
Polyamide PA non-reinforced, color: Green.

For marking systems and mounting material, see CLIPLINE catalog, part 2.

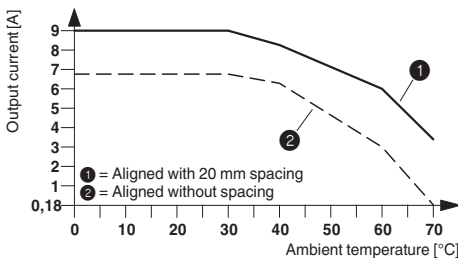


For starting 3~ AC motors
up to 550 V AC/3 x 9 A

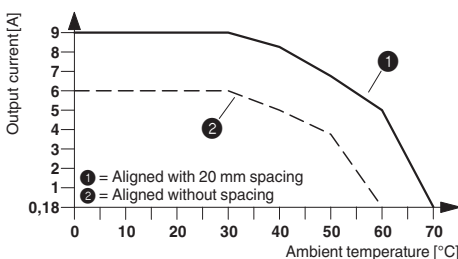


Technical data

Input data	ELR H3-SC- 24DC/500AC-9	ELR H3-SC-230AC/500AC-9
Rated control supply voltage U_s	24 V DC	230 V AC
Rated control supply voltage range with reference to U_s	0.8 ... 1.25	0.4 ... 1.1
Rated control supply current I_s at U_s	40 mA	4 mA
Rated actuation voltage U_C ON	24 V DC	230 V AC
Rated actuating voltage range with reference to U_C	0.8 ... 1.25	0.4 ... 1.1
Rated actuating current I_C at U_C	3 mA	7 mA
Input circuit	Protection against polarity reversal, surge protection	Surge protection
Operating voltage / status / error indicator	Green LED / Yellow LED / Red LED	
Output data load side		
Output voltage range	42 V AC ... 550 V AC	42 V AC ... 550 V AC
Load current	Max. 9 A (see derating curve)	Max. 9 A (see derating curve)
Surge current	100 A ($t = 10$ ms)	100 A ($t = 10$ ms)
Min. load current	1.5 A	1.5 A
Residual voltage	< 0.5 V	< 0.5 V
Leakage current	0 mA	0 mA
Output protection	Surge protection	
General data		
Rated insulation voltage	500 V	
Rated surge voltage	6 kV/safe isolation	4 kV/safe isolation
Switching frequency	Max. 2 Hz	Max. 2 Hz
Ambient temperature (operation)	-25°C ... 70°C	
Electrical service life	3 x 10 ⁷ cycles	
Standards / regulations	DIN EN 50178 / EN 60947	
Degree of protection according to IEC 60529/EN 60529	IP20	
Mounting position	Vertical (horizontal DIN rail)	
Mounting	Can be aligned with spacing = 20 mm	
Screw connection solid / stranded / AWG	0.14 - 2.5 mm ² / 0.14 - 2.5 mm ² / 26 - 12	
Dimensions	W / H / D	
	22.5 mm / 99 mm / 114.5 mm	



Derating curve for ELR H3-SC-24DC/500AC-9
100% operating time



Derating curve for ELR H3-SC-230AC/500AC-9
100% operating time

Description

"1 in 1" hybrid motor starter, incl. right contactor

Ordering data

Type	Order No.	Pcs. / Pkt.
ELR H3-SC- 24DC/500AC-9	2900530	1
ELR H3-SC-230AC/500AC-9	2900531	1

CONTACTRON bridge

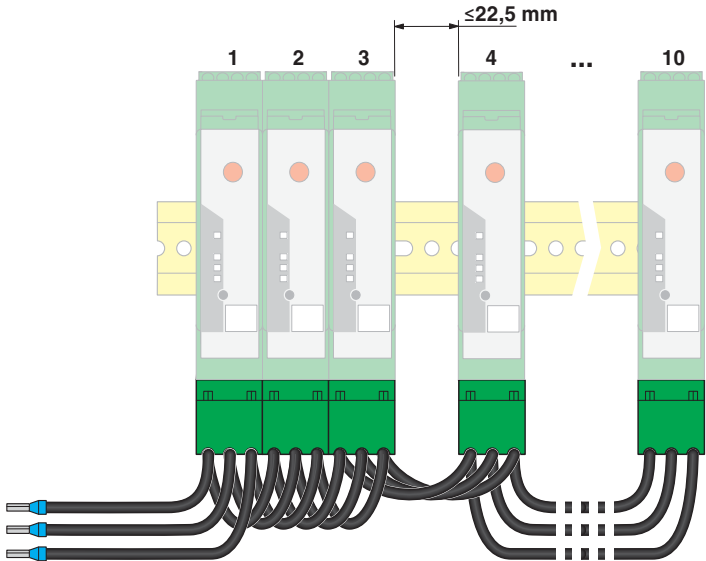
The flexible CONTACTRON loop bridge (BRIDGE-...) simplifies the supply and looping through of phases L1, L2, and L3. It is available in 2 to 10-way versions for modules in the CONTACTRON family with 22.5 mm housing width.

- Features of the 3-phase loop bridge:
- Saves considerable wiring
 - Suitable for CONTACTRON series
 - ELR H3...
 - ELR H5...
 - ELR (W)3...
 - EMM...IFS
 - Bridging of 2 to 10 devices with maximum module spacing of 22.5 mm
 - Up to 575 V AC/3 x 25 A
 - Additional bridge versions available on request



0.3 m connecting cable with ferrules

General data		Technical data		
Nominal voltage U _N		575 V AC		
Nominal current at U _N		25 A		
Cross section		2.5 mm²		
Description		Ordering data		
3-phase loop bridge		Type	Order No.	Pcs. / Pkt.
2-way		BRIDGE- 2	2900746	1
3-way		BRIDGE- 3	2900747	1
4-way		BRIDGE- 4	2900748	1
5-way		BRIDGE- 5	2900749	1
6-way		BRIDGE- 6	2900750	1
7-way		BRIDGE- 7	2900751	1
8-way		BRIDGE- 8	2900752	1
9-way		BRIDGE- 9	2900753	1
10-way		BRIDGE-10	2900754	1



N



3 m connecting cable
without ferrules

Technical data

575 V AC
25 A
2.5 mm²

Ordering data

Type	Order No.	Pcs. / Pkt.
BRIDGE- 2-3M	2901543	1
BRIDGE- 3-3M	2901656	1
BRIDGE- 4-3M	2901659	1
BRIDGE- 5-3M	2901545	1
BRIDGE- 6-3M	2901697	1
BRIDGE- 7-3M	2901698	1
BRIDGE- 8-3M	2901700	1
BRIDGE- 9-3M	2901701	1
BRIDGE-10-3M	2901702	1