



Figure similar

CONTACTOR AC-1, 140 A/400 V, 24 V DC, 3-POLE, SIZE S3, SCREW TERMINAL, WITHOUT BOX TERMINALS LATERAL AUX. SWITCH BLOCK L+ R 2 NO + 2 NC.

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S3
Insulation voltage	
• Rated value	1 000 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Degree of pollution	3
Mechanical service life (switching cycles)	
• of the contactor typical	10 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
Main circuit:	
Number of NO contacts for main contacts	3

Number of NC contacts for main contacts	0
Operating current <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value • at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value — at ambient temperature 60 °C Rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 690 V Rated value 	140 A 140 A 130 A 44 A 44 A
Connectable conductor cross-section in main circuit at AC-1 <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible 	35 mm ² 50 mm ²
Operating current <ul style="list-style-type: none"> • with 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	130 A 12 A 130 A 130 A 130 A 130 A
Operating current <ul style="list-style-type: none"> • with 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	6 A 1.25 A 130 A 130 A 130 A 130 A
Operating power <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C Rated value — at 400 V Rated value — at 690 V Rated value — at 690 V at 60 °C Rated value • at AC-2 at 400 V Rated value • at AC-3 	50 kW 86 kW 148 kW 148 kW 22 kW

— at 230 V Rated value	12.7 kW
— at 400 V Rated value	22 kW
— at 500 V Rated value	29.9 kW
— at 690 V Rated value	38.2 kW
Thermal short-time current restricted to 10 s	600 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	12.5 W
No-load switching frequency	
• for DC	1 000 1/h
Operating frequency	
• at AC-1 maximum	650 1/h

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
• Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 ... 1.1
Closing power of the magnet coil for DC	15 W
Holding power of the magnet coil for DC	15 W
Closing delay	
• for DC	90 ... 230 ms
Arcing time	10 ... 15 ms

Auxiliary circuit:

Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	2
Number of NO contacts	
• for auxiliary contacts	
— instantaneous contact	2
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	6 A
• at 400 V Rated value	3 A
Operating current at DC-12	
• at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 220 V Rated value	1 A
Operating current at DC-13	
• at 24 V Rated value	10 A
• at 60 V Rated value	2 A
• at 110 V Rated value	1 A
• at 220 V Rated value	0.3 A

Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
Short-circuit:	
Design of the fuse link <ul style="list-style-type: none"> for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of assignment 1 required — with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 250 A fuse gL/gG: 250 A fuse gL/gG: 10 A
Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail
<ul style="list-style-type: none"> Side-by-side mounting 	Yes
Height	146 mm
Width	90 mm
Depth	152 mm
Required spacing <ul style="list-style-type: none"> for grounded parts <ul style="list-style-type: none"> — at the side 	6 mm
Connections/ Terminals:	
Type of electrical connection <ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Type of connectable conductor cross-section <ul style="list-style-type: none"> for AWG conductors for main contacts 	7 ... 1/0
Type of connectable conductor cross-section <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing for AWG conductors for auxiliary contacts 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12
Certificates/ approvals:	

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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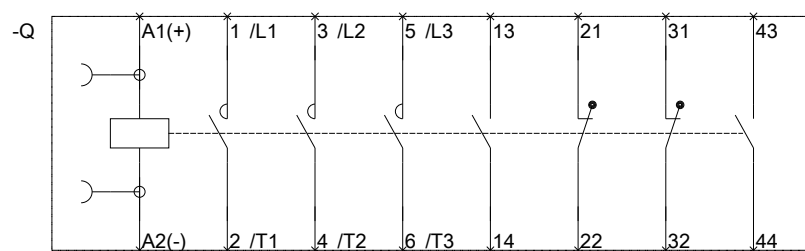
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