

CONTACTOR, 55KW/400V/AC-3, AC(40...60HZ)/DC OPERATION
UC 440...480V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6
BAR CONNECTIONS CONVENTIONAL OPERATING MECHAN.
SCREW TERMINAL



Figure similar

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S6
Insulation voltage	
• Rated value	1 000 V
Surge voltage resistance Rated value	8 kV
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— at AC	8,5g / 5 ms, 4,2g / 10 ms
— at DC	8,5g / 5 ms, 4,2g / 10 ms
• with sine pulse	
— at AC	13,4g / 5 ms, 6,5g / 10 ms
— at DC	13,4g / 5 ms, 6,5g / 10 ms
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	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	160 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	160 A
— at ambient temperature 60 °C Rated value	140 A
• at AC-3	
— at 400 V Rated value	115 A
— at 690 V Rated value	115 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	50 mm²
• at 40 °C minimum permissible	70 mm²
Operating current	
• at 1 current path at DC-1	
— at 24 V Rated value	160 A
— at 110 V Rated value	18 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	160 A
— at 110 V Rated value	160 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	160 A
— at 110 V Rated value	160 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V Rated value	160 A
— at 110 V Rated value	2.5 A

• with 2 current paths in series at DC-3 at DC-5 — at 110 V Rated value — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value — at 24 V Rated value	160 A 160 A 160 A 160 A
Operating power • at AC-1 — 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 — at 230 V Rated value — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value	53 kW 92 kW 159 kW 159 kW 64 kW 37 kW 64 kW 81 kW 113 kW
Thermal short-time current limited to 10 s	1 100 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	7 W
No-load switching frequency • at AC • at DC	2 000 1/h 2 000 1/h
Operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	800 1/h 400 1/h 1 000 1/h 130 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value	440 ... 480 V 440 ... 480 V
Control supply voltage at DC • Rated value • Rated value	440 ... 480 V 40 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz • at 60 Hz	0.8 ... 1.1 0.8 ... 1.1

Operating range factor control supply voltage rated value of the magnet coil at DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of the magnet coil at AC	300 V·A
Inductive power factor with closing power of the coil	0.9
Apparent holding power of the magnet coil at AC	5.8 V·A
Inductive power factor with the holding power of the coil	0.8
Closing power of the magnet coil at DC	360 W
Holding power of the magnet coil at DC	5.2 W
Closing delay	
• at AC	20 ... 95 ms
• at DC	20 ... 95 ms
Opening delay	
• at AC	40 ... 60 ms
• at DC	40 ... 60 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

UL/CSA ratings:

Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
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Short-circuit protection

Design of the fuse link	
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- for short-circuit protection of the main circuit
 - with type of assignment 1 required
 - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 355 A
 fuse gL/gG: 315 A
 fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

Mounting type	screw fixing
• Side-by-side mounting	Yes
Height	172 mm
Width	120 mm
Depth	170 mm
Required spacing	
• for grounded parts — at the side	10 mm

Connections/ Terminals:

Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-section	
• for AWG conductors for main contacts	4 ... 250 kcmil
Type of connectable conductor cross-section	
• for auxiliary contacts — solid — finely stranded with core end processing	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)
• for AWG conductors for auxiliary contacts	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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CCC



CSA



UL

[Baumusterbescheinigung](#)



EG-Konf.

Test Certificates	Shipping Approval
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ABS



DNV



GL



RMRS

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<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10546AR36>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10546AR36>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10546AR36&lang=en

