

CONTACTOR, 55KW/400V/AC-3, AC(40...60HZ)/DC OPERATION
UC 96...127V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6 BAR
CONNECTIONS ELECTRONIC OPERATING MECHANISM WITH
PLC INTERFACE 24V DC SCREW TERMINAL

product brand name	SIRIUS
Product designation	power contactor

General technical data

Size of contactor	S6
Insulation voltage • rated value	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation • between coil and main contacts acc. to EN 60947-1	690 V
Protection class IP • on the front • of the terminal	IP00 IP00
Shock resistance • at rectangular impulse — at AC — at DC • with sine pulse — at AC — at DC	8,5g / 5 ms, 4,2g / 10 ms 8,5g / 5 ms, 4,2g / 10 ms 13,4g / 5 ms, 6,5g / 10 ms 13,4g / 5 ms, 6,5g / 10 ms
Mechanical service life (switching cycles) • of contactor typical • of the contactor with added electronics-compatible auxiliary switch block typical • of the contactor with added auxiliary switch block typical	10 000 000 5 000 000 10 000 000

Ambient conditions

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature • during operation • during storage	-25 ... +60 °C -55 ... +80 °C

Main circuit

Number of poles for main current circuit	3
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 — up to 690 V at ambient temperature 60 °C rated value — up to 1000 V at ambient temperature 40 °C rated value — up to 1000 V at ambient temperature 60 °C rated value	160 A 140 A 80 A 80 A
• at AC-3 — at 400 V rated value — at 690 V rated value — at 1000 V rated value	115 A 115 A 53 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible • at 40 °C minimum permissible	50 mm ² 70 mm ²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value • at 690 V rated value	54 A 48 A
Operating current	
• at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value	160 A 18 A 160 A 160 A 160 A 160 A
Operating current	
• at 1 current path at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-3 at DC-5 — at 110 V rated value	160 A 2.5 A 160 A

— at 24 V rated value	160 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	160 A
— at 24 V rated value	160 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	53 kW
— at 400 V rated value	92 kW
— at 690 V rated value	159 kW
— at 690 V at 60 °C rated value	159 kW
— at 1000 V at 60 °C rated value	131 W
• at AC-2 at 400 V rated value	64 kW
• at AC-3	
— at 230 V rated value	37 kW
— at 400 V rated value	64 kW
— at 500 V rated value	81 kW
— at 690 V rated value	113 kW
— at 1000 V rated value	75 W
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	29 kW
• at 690 V rated value	48 kW
Thermal short-time current limited to 10 s	1 100 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	7 W
No-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
Operating frequency	
• at AC-1 maximum	800 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	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	96 ... 127 V
• at 60 Hz rated value	96 ... 127 V
Control supply voltage at DC	
• rated value	96 ... 127 V
Control supply voltage frequency 1 rated value	50 Hz
Control supply voltage frequency 2 rated value	60 Hz

Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
Operating range factor control supply voltage rated value of magnet coil at DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	280 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of magnet coil at AC	4.8 V·A
Inductive power factor with the holding power of the coil	0.6
Closing power of magnet coil at DC	320 W
Holding power of magnet coil at DC	2.8 W
Closing delay	
• at AC	35 ... 75 ms
• at DC	35 ... 75 ms
Opening delay	
• at AC	80 ... 90 ms
• at DC	80 ... 90 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 auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
Design of the fuse link - for short-circuit protection of the main circuit — with type of coordination 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 Side-by-side mounting	screw fixing 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 - for auxiliary and control current circuit	screw-type terminals screw-type terminals
Type of connectable conductor cross-sections at AWG conductors for main contacts	4 ... 250 kcmil
Type of connectable conductor cross-sections - for auxiliary contacts — solid — finely stranded with core end processing - at 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			Declaration of Conformity	Test Certificates	
				Typprüfbescheinigung/Werkszeugnis	spezielle Prüfbescheinigungen
CSA	UL		EG-Konf.		

Shipping Approval				other	
				Bestätigungen	Umweltbestätigung
ABS	DNV	GL	RMRS		

other
sonstig

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1054-6NF36>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1054-6NF36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1054-6NF36>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1054-6NF36&lang=en

last modified:

10/07/2016