

CONTACTOR, AC-3, 37KW/400V, 230V AC, 50HZ, 2NO+2NC, 3-POLE, SIZE S3, SCREW TERMINAL AUXIL. SWITCH BLOCK FRONT S. PERMANENT. JOINTED FOR SUVA APPLICATIONS



product brandname	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	S3
Insulation voltage	
• rated value	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	6 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	IP00
• of the terminal	IP00
Shock resistance	
• at rectangular impulse	
— at AC	6,8g / 5 ms, 4g / 10 ms
• with sine pulse	
— at AC	10,6g / 5 ms, 6,2g / 10 ms

Mechanical service life (switching cycles)	
• of 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 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	120 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	120 A
— up to 690 V at ambient temperature 60 °C rated value	100 A
— up to 1000 V at ambient temperature 40 °C rated value	60 A
— up to 1000 V at ambient temperature 60 °C rated value	50 A
• at AC-3	
— at 400 V rated value	80 A
— at 690 V rated value	58 A
— at 1000 V rated value	30 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	35 mm²
• at 40 °C minimum permissible	50 mm²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	34 A
• at 690 V rated value	22 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	100 A

— at 110 V rated value	9 A
• with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value	100 A 100 A
• with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value	100 A 100 A
Operating current	
• at 1 current path at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value	40 A 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	100 A 100 A
• with 3 current paths in series at DC-3 at DC-5 — at 110 V rated value — at 24 V rated value	100 A 100 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 1000 V at 60 °C rated value	38 kW 66 kW 114 kW 114 kW 82 W
• at AC-2 at 400 V rated value	37 kW
• at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value	22 kW 37 kW 45 kW 55 kW 37 W
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	17.9 kW
• at 690 V rated value	21.1 kW
Thermal short-time current limited to 10 s	760 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	7.7 W
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	900 1/h

• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 1/h

Control circuit/ Control

Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
Control supply voltage frequency 1 rated value	50 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
Apparent pick-up power of magnet coil at AC	270 V·A
Inductive power factor with closing power of the coil	0.68
Apparent holding power of magnet coil at AC	22 V·A
Inductive power factor with the holding power of the coil	0.27
Closing delay	
• at AC	17 ... 90 ms
Opening delay	
• at AC	10 ... 25 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 auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

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: 250 A fuse gL/gG: 160 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
Side-by-side mounting	Yes
Height	146 mm
Width	70 mm
Depth	188 mm
Required spacing	
- for grounded parts — at the side	6 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	
- for main contacts — solid — stranded — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing - at AWG conductors for main contacts	2x (2.5 ... 16 mm ²) 2x (10 ... 50 mm ²) 2x (2,5 ... 16 mm ²) 2x (2.5 ... 35 mm ²) 2x (10 ... 35 mm ²) 2x (10 ... 1/0)
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
 CCC	 CSA	 UL		 EG-Konf.	spezielle Prüfbescheinigungen n

Shipping Approval					
 ABS	 BUREAU VERITAS	 GL	 LRS	 RINA	 RMRS

other		
Umweltbestätigung	Bestätigungen	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=3RT1045-1AP04-3MA0>

Cax online generator

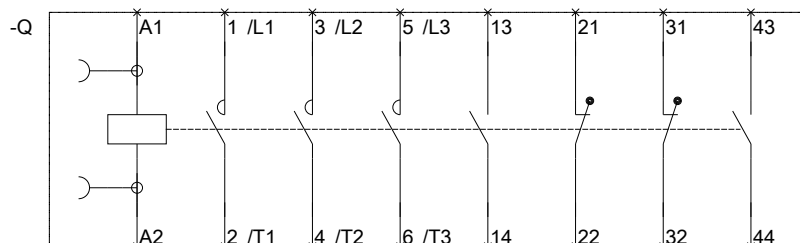
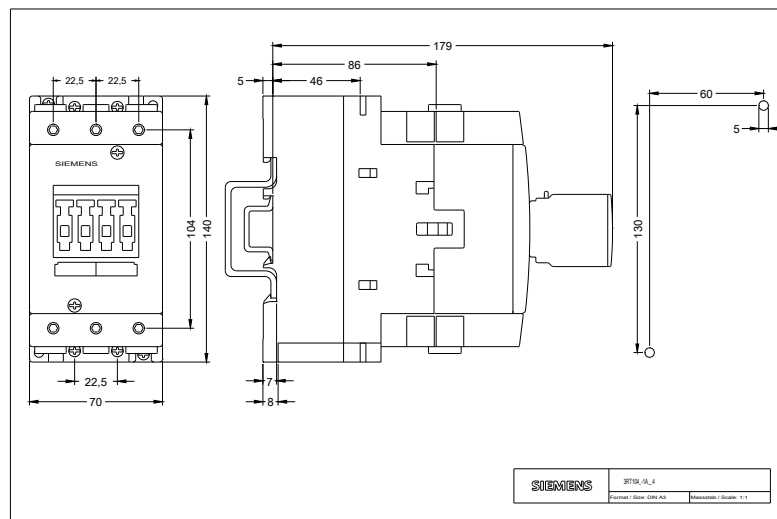
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1045-1AP04-3MA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1045-1AP04-3MA0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1045-1AP04-3MA0&lang=en



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