

CONTACTOR,AC3:22KW/400V, 2NO+2NC, 230V AC 50HZ, 3-
POLE, SIZE S2, SCREW TERMINAL, AUXILIARY CONTACT
INSEPARABLE



product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data	
Size of contactor	S2
Product extension	
• function module for communication	No
• Auxiliary switch	No
Insulation voltage	
• rated value	690 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	400 V
Protection class IP	
• on the front	IP20
• of the terminal	IP00

Shock resistance	
• at rectangular impulse — at AC • with sine pulse — at AC	9.8g / 5 ms, 6.5g / 10 ms 15.3g / 5 ms, 10.1g / 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 voltage	
• at AC-3 rated value maximum	690 V
Operating current	
• at AC-1 at 400 V — at ambient temperature 40 °C rated value • 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 • at AC-2 at 400 V rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value	70 A 70 A 60 A 51 A 51 A 50 A 24 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible • at 40 °C minimum permissible	16 mm² 25 mm²
Operating current for approx. 200000 operating cycles at AC-4	

• at 400 V rated value	24 A
• at 690 V rated value	20 A
Operating current	
• at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	55 A 4.5 A 1 A 0.4 A 0.25 A
• with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	55 A 45 A 5 A 1 A 0.8 A
• with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	55 A 55 A 45 A 2.9 A 1.4 A
Operating current	
• at 1 current path at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	35 A 2.5 A 1 A 0.1 A 0.06 A
• with 2 current paths in series at DC-3 at DC-5 — at 110 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value — at 600 V rated value	25 A 5 A 55 A 0.27 A 0.16 A
• with 3 current paths in series at DC-3 at DC-5 — at 110 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value — at 600 V rated value	55 A 25 A 55 A 0.6 A 0.35 A
Operating power	

• at AC-1 — at 230 V rated value — at 230 V at 60 °C rated value — at 400 V rated value — at 400 V at 60 °C 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	26 kW 23 kW 46 kW 39 kW 79 kW 68 kW 22 kW 15 kW 22 kW 30 kW 22 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value • at 690 V rated value	12.6 kW 18.2 kW
Thermal short-time current limited to 10 s	420 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	4 W
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	1 000 1/h 600 1/h 800 1/h 250 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
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	
• at 50 Hz	190 V·A
Apparent holding power of magnet coil at AC	
• at 50 Hz	16 V·A
Closing delay	
• at AC	10 ... 80 ms
Opening delay	
• at AC	10 ... 18 ms

Arcing time	10 ... 20 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
• at 500 V rated value	2 A
• at 690 V rated value	1 A
Operating current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
Operating current at DC-13	
• at 24 V rated value	6 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	52 A
• at 600 V rated value	52 A
Yielded mechanical performance [hp]	
• for single-phase AC motor — at 110/120 V rated value	3 hp
— at 230 V rated value	10 hp
• for three-phase AC motor — at 200/208 V rated value	15 hp

— at 220/230 V rated value	15 hp
— at 460/480 V rated value	40 hp
— at 575/600 V rated value	50 hp
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	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A fuse gL/gG: 10 A
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Installation/ mounting/ dimensions

Mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Mounting type • Side-by-side mounting	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes
Height	114 mm
Width	55 mm
Depth	174 mm
Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — upwards — at the side — downwards • for live parts — forwards — Backwards — upwards — downwards — at the side	0 mm 0 mm 0 mm 0 mm 0 mm 10 mm 0 mm 50 mm 6 mm 50 mm 10 mm 0 mm 50 mm 50 mm 6 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-sections	
• for main contacts	
— single or multi-stranded	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
— finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
• at AWG conductors for main contacts	2x (18 ... 2), 1x (18 ... 1)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
Safety related data	
B10 value	
• with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %
• with high demand rate acc. to SN 31920	73 %
Product function	
• Mirror contact acc. to IEC 60947-4-1	Yes
• positively driven operation acc. to IEC 60947-5-1	No
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Certificates/approvals	

General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 CSA	 UL		 EG-Konf.	spezielle Prüfbescheinigunge n

Test Certificates	Shipping Approval				
Typprüfbescheinigung/Werkszeugnis	 ABS	 BUREAU VERITAS	 DNV	 GL	 LRS

Shipping Approval	other				
 RMRS	Umweltbestätigung	Bestätigungen			

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=3RT2036-1AP04-3MA0>

Cax online generator

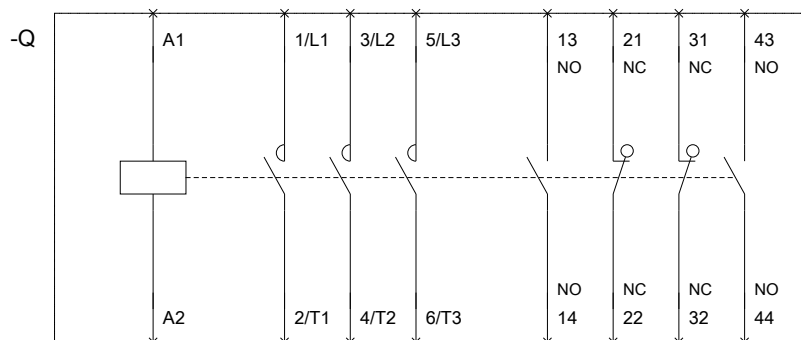
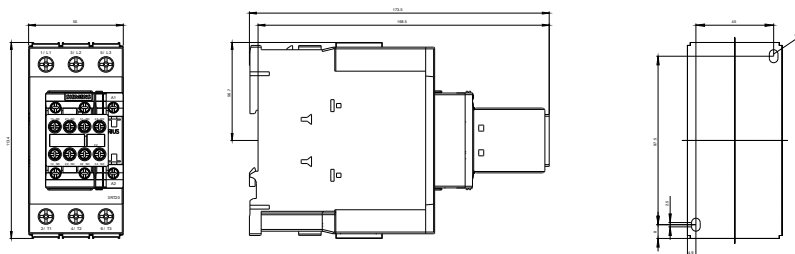
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2036-1AP04-3MA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1AP04-3MA0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2036-1AP04-3MA0&lang=en



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