



CONTACTOR, AC-3, 3KW/400V, 1NC, AC 220V 50HZ 240V 60 HZ,
3-POLE, SZ S00 SCREW TERMINAL

product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Size of contactor	S00
Product expansion	
• function module for communication	No
• Auxiliary switch	Yes
Insulation voltage	
• Rated value	690 V
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	IP20
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— at AC	6,7g / 5 ms, 4,2g / 10 ms
• with sine pulse	
— at AC	10,5g / 5 ms, 6,6g / 10 ms
Mechanical service life (switching cycles)	
• of the contactor typical	30 000 000
• 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 voltage	
• at AC-3 Rated value maximum	690 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	18 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	18 A
— at ambient temperature 60 °C Rated value	16 A
• at AC-2 at 400 V Rated value	7 A
• at AC-3	
— at 400 V Rated value	7 A
— at 500 V Rated value	6 A
— at 690 V Rated value	4.9 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	2.5 mm ²
• at 40 °C minimum permissible	2.5 mm ²
Operating current for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	2.6 A
• at 690 V Rated value	1.8 A
Operating current	
• with 1 current path at DC-1	
— at 24 V Rated value	15 A
— at 110 V Rated value	1.5 A
— at 220 V Rated value	0.6 A
— at 440 V Rated value	0.42 A
— at 600 V Rated value	0.42 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	15 A
— at 110 V Rated value	8.4 A

— at 220 V Rated value	1.2 A
— at 440 V Rated value	0.6 A
— at 600 V Rated value	0.5 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	15 A
— at 110 V Rated value	15 A
— at 220 V Rated value	15 A
— at 440 V Rated value	0.9 A
— at 600 V Rated value	0.7 A
Operating current	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	15 A
— at 110 V Rated value	0.1 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	0.25 A
— at 24 V Rated value	15 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	15 A
— at 220 V Rated value	1.2 A
— at 24 V Rated value	15 A
— at 440 V Rated value	0.14 A
— at 600 V Rated value	0.14 A
Operating power	
• at AC-1	
— at 230 V Rated value	6.3 kW
— at 230 V at 60 °C Rated value	6 kW
— at 400 V Rated value	11 kW
— at 400 V at 60 °C Rated value	10.5 kW
— at 690 V Rated value	19 kW
— at 690 V at 60 °C Rated value	18 kW
• at AC-2 at 400 V Rated value	3 kW
• at AC-3	
— at 230 V Rated value	1.5 kW
— at 400 V Rated value	3 kW
— at 690 V Rated value	4 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	1.15 kW
• at 690 V Rated value	1.15 kW
Thermal short-time current restricted to 10 s	
	56 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	
	0.4 W

No-load switching frequency	
• at AC	10 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-4 maximum	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	220 V
• at 60 Hz Rated value	240 V
Operating range factor control supply voltage rated value of the magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
Apparent pick-up power of the magnet coil at AC	
• at 50 Hz	27 V·A
• at 60 Hz	24.3 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
Apparent holding power of the magnet coil at AC	
• at 50 Hz	4.2 V·A
• at 60 Hz	3.3 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
Closing delay	
• at AC	9 ... 35 ms
Opening delay	
• at AC	3.5 ... 14 ms
Arcing time	10 ... 15 ms
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	3 mA
• at DC at 24 V maximum permissible	10 mA
Auxiliary circuit:	
Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	1

Number of NO contacts	
• for auxiliary contacts — instantaneous contact	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value	10 A 3 A 2 A 1 A
Operating current at DC-12	
• at 24 V Rated value • at 48 V Rated value • at 60 V Rated value • at 110 V Rated value • at 125 V Rated value • at 220 V Rated value • at 600 V Rated value	10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
Operating current at DC-13	
• at 24 V Rated value • at 48 V Rated value • at 60 V Rated value • at 110 V Rated value • at 125 V Rated value • at 220 V Rated value • at 600 V Rated value	10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
Contact reliability of the 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 • at 600 V Rated value	4.8 A 6.1 A
yielded mechanical performance [hp]	
• for single-phase AC motor — at 110/120 V Rated value — at 230 V Rated value • for three-phase AC motor — at 200/208 V Rated value — at 220/230 V Rated value — at 460/480 V Rated value — at 575/600 V Rated value	0.25 hp 0.75 hp 1.5 hp 2 hp 3 hp 5 hp
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
Short-circuit:	

Design of the fuse link	
• 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	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gL/gG: 10 A
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	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting	Yes
Height	58 mm
Width	45 mm
Depth	73 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 0 mm 0 mm 0 mm 6 mm 0 mm 0 mm 0 mm 0 mm 0 mm 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-section	
• for main contacts — single or multi-stranded	2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm²

— finely stranded with core end processing • for AWG conductors for main contacts	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12
Type of connectable conductor cross-section • for auxiliary contacts — single or multi-stranded — 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), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12
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 • with high demand rate acc. to SN 31920	40 % 73 %
Product function • Mirror contact acc. to IEC 60947-4-1	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Certificates/ approvals:	

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

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

Cax online generator

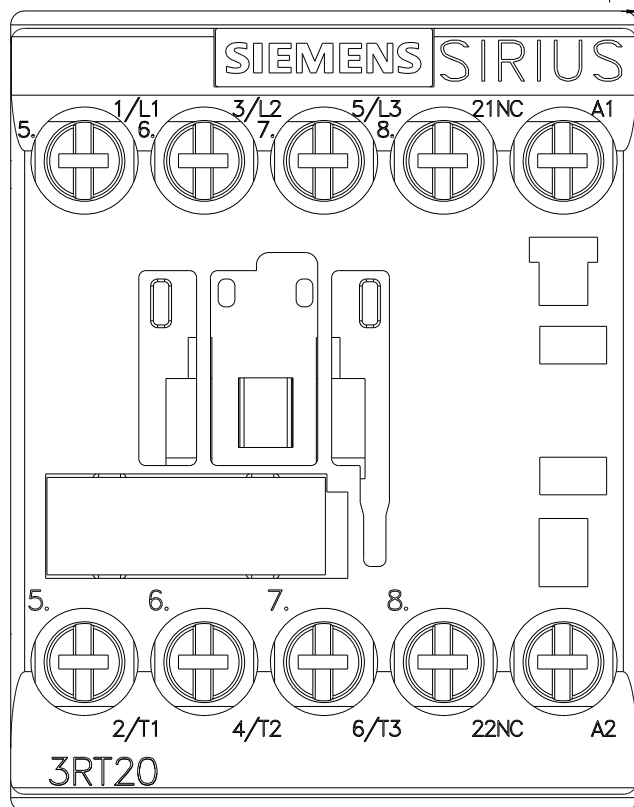
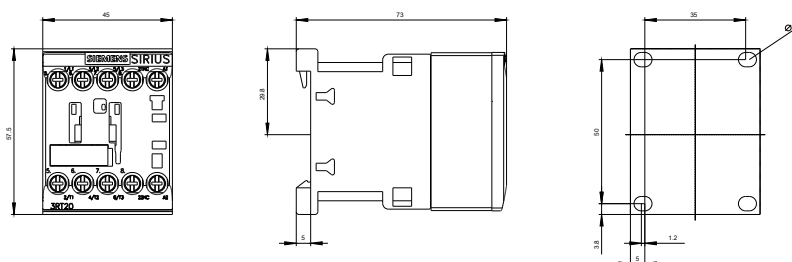
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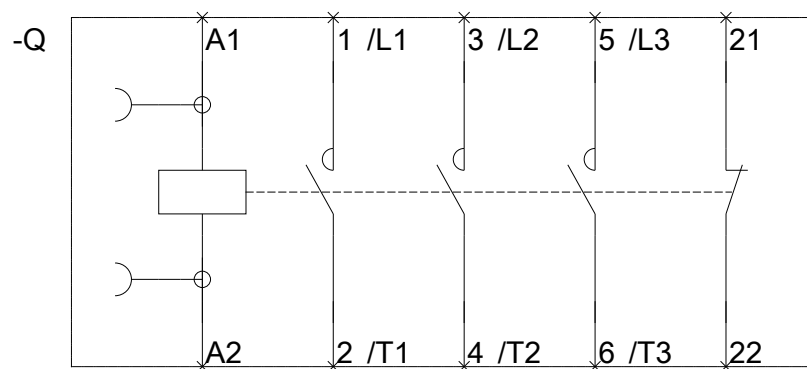
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20151AP62>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20151AP62&lang=en





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