

2NO+2NC CONTACTOR, AC3: 5.5KW AC 110V 50/60HZ 4-POLE,
2NO+2NC, SZ: S00, SPRING-LOADED TERMINAL WITH FULL-
WAVE RECTIFICATION



product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data	
Size of contactor	S00
Product extension	
• function module for communication	No
• Auxiliary switch	Yes
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
Shock resistance	
• at rectangular impulse	
— at AC	7,3g / 5 ms, 4,7g / 10 ms

• with sine pulse — at AC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
• of 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 poles for main current circuit	4
Number of NO contacts for main contacts	2
Number of NC contacts for main contacts	2
Operating current	
• 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	22 A 20 A
• at AC-2 at AC-3 at 400 V — per NO contact rated value — per NC contact rated value	12 A 9 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible • at 40 °C minimum permissible	2.5 mm ² 4 mm ²
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	20 A 2.1 A 0.8 A 0.6 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	20 A 12 A 1.6 A 0.8 A

Operating current	
• at 1 current path at DC-3 at DC-5 — at 24 V per NC contact rated value — at 24 V per NO contact rated value — at 110 V per NC contact rated value — at 110 V per NO contact rated value — at 220 V per NC contact rated value — at 220 V per NO contact rated value • with 2 current paths in series at DC-3 at DC-5 — at 110 V per NC contact rated value — at 110 V per NO contact rated value — at 24 V per NC contact rated value — at 24 V per NO contact rated value	20 A 20 A 0.075 A 0.15 A 0.375 A 0.75 A 0.175 A 0.35 A 20 A 20 A
Operating power	
• at AC-1 — at 230 V rated value — at 400 V rated value • at AC-2 at AC-3 — at 230 V per NC contact rated value — at 230 V per NO contact rated value — at 400 V per NC contact rated value — at 400 V per NO contact rated value	7.5 kW 13 kW 2.2 kW 3 kW 4 kW 5.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	1.2 W
No-load switching frequency	
• at AC • at DC	10 000 1/h 10 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value • at 60 Hz rated value	110 V 110 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz • at 60 Hz	0.8 ... 1.1 0.85 ... 1.1
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	37 V·A 37 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.8 0.8

Apparent holding power of magnet coil at AC	5.7 V·A
• at 50 Hz	5.7 V·A
Inductive power factor with the holding power of the coil	0.25
• at 60 Hz	0.25
Closing delay	
• at AC	8 ... 33 ms
Opening delay	
• at AC	4 ... 15 ms
Arcing time	10 ... 15 ms
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.004 A

Auxiliary circuit

Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	0
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	10 A
• at 400 V rated value	3 A
Operating current at DC-12	
• 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	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 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

Yielded mechanical performance [hp]	
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• for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	0.5 hp 2 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 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
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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	70 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	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (0.5 ... 4 mm ²)
— single or multi-stranded	2x (0,5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
• at AWG conductors for main contacts	2x (20 ... 12)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 ... 4 mm ²)
— single or multi-stranded	2x (0,5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 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	40 %
• with high demand rate acc. to SN 31920	73 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
• Mirror contact acc. to IEC 60947-4-1	Yes; with 3RH29
• 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 Prüfbescheinigungen

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

Shipping Approval			other	
 PRS	 RINA	 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=3RT2517-2GG20>

Cax online generator

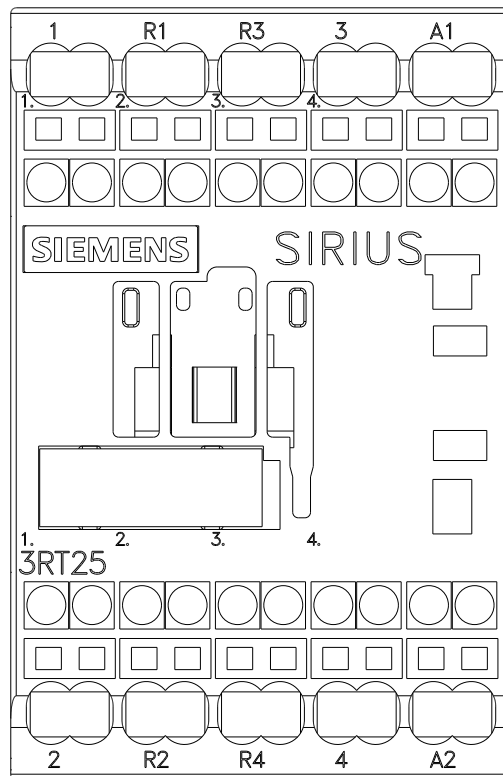
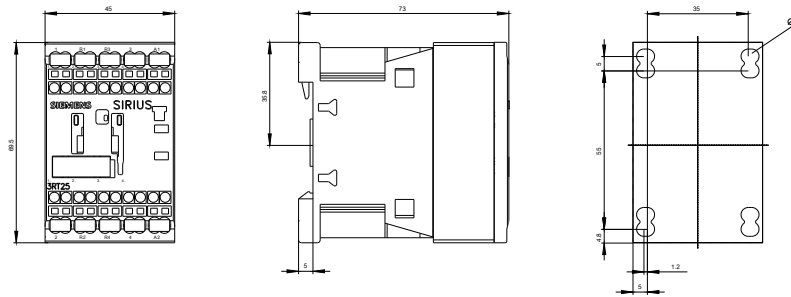
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2517-2GG20>

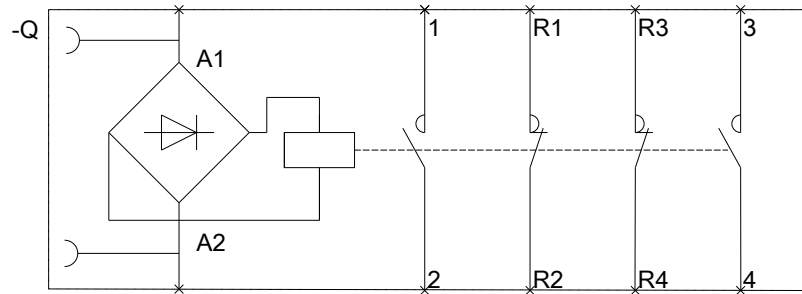
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2517-2GG20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2517-2GG20&lang=en





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