



CONTACTOR, AC-3, 7.5KW/400V, 1NC, DC 24V, 3-POLE, SZ S00
SCREW TERMINAL .

product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Size of contactor	S00
Product expansion	No
<ul style="list-style-type: none"> • function module for communication • Auxiliary switch 	Yes
Insulation voltage	690 V
<ul style="list-style-type: none"> • 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	IP20
<ul style="list-style-type: none"> • on the front • of the terminal 	IP20
Degree of pollution	3
Shock resistance	
<ul style="list-style-type: none"> • at rectangular impulse <ul style="list-style-type: none"> — at DC • with sine pulse <ul style="list-style-type: none"> — at DC 	7.3g / 5 ms, 4.7g / 10 ms
	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of the contactor typical • of the contactor with added electronics-compatible auxiliary switch block typical 	30 000 000
	5 000 000

<ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical 	10 000 000
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Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	690 V
Operating current	
<ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value 	22 A
<ul style="list-style-type: none"> • at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value — at ambient temperature 60 °C Rated value 	22 A 20 A
<ul style="list-style-type: none"> • at AC-2 at 400 V Rated value 	16 A
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value 	16 A 12.4 A 8.9 A
Connectable conductor cross-section in main circuit at AC-1	
<ul style="list-style-type: none"> • at 60 °C minimum permissible 	2.5 mm ²
<ul style="list-style-type: none"> • at 40 °C minimum permissible 	4 mm ²
Operating current for ≥ 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V Rated value 	5.5 A
<ul style="list-style-type: none"> • at 690 V Rated value 	4.4 A
Operating current	
<ul style="list-style-type: none"> • with 1 current path at DC-1 <ul style="list-style-type: none"> — 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 	20 A 2.1 A 0.8 A 0.6 A 0.6 A
<ul style="list-style-type: none"> • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	20 A 12 A

— at 220 V Rated value	1.6 A
— at 440 V Rated value	0.8 A
— at 600 V Rated value	0.7 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	20 A
— at 110 V Rated value	20 A
— at 220 V Rated value	20 A
— at 440 V Rated value	1.3 A
— at 600 V Rated value	1 A
Operating current	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	20 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	0.35 A
— at 24 V Rated value	20 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	20 A
— at 220 V Rated value	1.5 A
— at 24 V Rated value	20 A
— at 440 V Rated value	0.2 A
— at 600 V Rated value	0.2 A
Operating power	
• at AC-1	
— at 230 V Rated value	7.5 kW
— at 230 V at 60 °C Rated value	7.5 kW
— at 400 V Rated value	13 kW
— at 400 V at 60 °C Rated value	13 kW
— at 690 V Rated value	22 kW
— at 690 V at 60 °C Rated value	22 kW
• at AC-2 at 400 V Rated value	7.5 kW
• at AC-3	
— at 230 V Rated value	4 kW
— at 400 V Rated value	7.5 kW
— at 690 V Rated value	7.5 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	2.5 kW
• at 690 V Rated value	3.5 kW
Thermal short-time current restricted to 10 s	128 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	2.2 W

No-load switching frequency	
<ul style="list-style-type: none"> • at DC 	10 000 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum 	1 000 1/h
<ul style="list-style-type: none"> • at AC-2 maximum 	750 1/h
<ul style="list-style-type: none"> • at AC-3 maximum 	750 1/h
<ul style="list-style-type: none"> • at AC-4 maximum 	250 1/h

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
<ul style="list-style-type: none"> • Rated value 	24 V
Operating range factor control supply voltage rated value of the magnet coil at DC	0.8 ... 1.1
Closing power of the magnet coil at DC	4 W
Holding power of the magnet coil for DC	4 W
Closing delay	
<ul style="list-style-type: none"> • at DC 	30 ... 100 ms
Opening delay	
<ul style="list-style-type: none"> • at DC 	7 ... 13 ms
Arcing time	10 ... 15 ms
Residual current of the electronics for control with signal <0>	
<ul style="list-style-type: none"> • at AC at 230 V maximum permissible 	4 mA
<ul style="list-style-type: none"> • at DC at 24 V maximum permissible 	10 mA

Auxiliary circuit:

Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact 	1
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact 	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
<ul style="list-style-type: none"> • at 230 V Rated value 	10 A
<ul style="list-style-type: none"> • at 400 V Rated value 	3 A
<ul style="list-style-type: none"> • at 500 V Rated value 	2 A
<ul style="list-style-type: none"> • at 690 V Rated value 	1 A
Operating current at DC-12	
<ul style="list-style-type: none"> • at 24 V Rated value 	10 A
<ul style="list-style-type: none"> • at 48 V Rated value 	6 A
<ul style="list-style-type: none"> • at 60 V Rated value 	6 A
<ul style="list-style-type: none"> • at 110 V Rated value 	3 A

<ul style="list-style-type: none"> • at 125 V Rated value • at 220 V Rated value • at 600 V Rated value 	<p>2 A</p> <p>1 A</p> <p>0.15 A</p>
Operating current at DC-13	
<ul style="list-style-type: none"> • 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 	<p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p>
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	
<ul style="list-style-type: none"> • at 480 V Rated value • at 600 V Rated value 	<p>14 A</p> <p>11 A</p>
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V Rated value — at 230 V Rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V Rated value — at 220/230 V Rated value — at 460/480 V Rated value — at 575/600 V Rated value 	<p>1 hp</p> <p>2 hp</p> <p>3 hp</p> <p>5 hp</p> <p>10 hp</p> <p>10 hp</p>
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600

Short-circuit:

Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	<p>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A</p> <p>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A</p> <p>fuse gL/gG: 10 A</p>

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
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	58 mm

Width	45 mm
Depth	73 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — at the side 6 mm — downwards 0 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 6 mm 	

Connections/ Terminals:

Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit screw-type terminals • for auxiliary and control current circuit screw-type terminals 	
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — 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 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) • for AWG conductors for main contacts 2x (20 ... 16), 2x (18 ... 14), 2x 12 	
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — 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 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) • for AWG conductors for auxiliary contacts 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	
<ul style="list-style-type: none"> • 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

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



CCC



CSA



UL

[Baumusterbescheinigung](#)



EG-Konf.

Test Certificates

Shipping Approval

[Typprüfbescheinigung/Werkszeugnis](#)

[spezielle Prüfbescheinigung](#)
[n](#)



ABS



BUREAU VERITAS



DNV



GL

Shipping Approval

other



LRS



PRS



RINA



RMRS

[Bestätigungen](#)

[Umweltbestätigung](#)

other



VDE

Further information

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

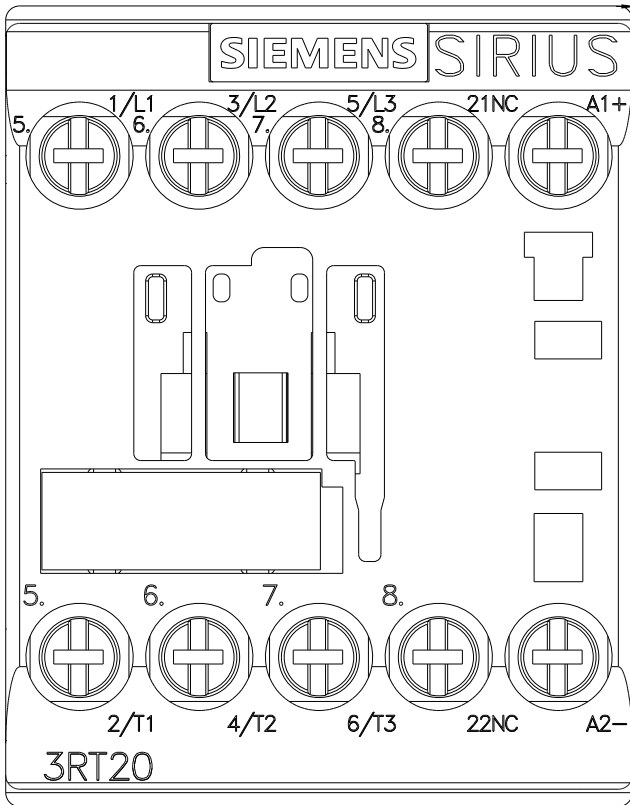
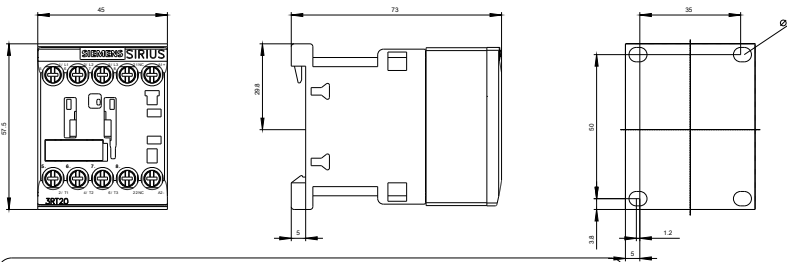
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20181BB42>

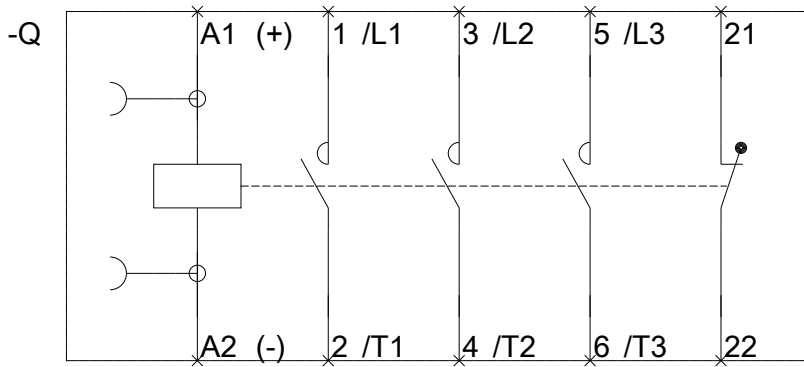
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20181BB42>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20181BB42&lang=en





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