



4NO CONTACTOR, AC1: 50A DC 220V 4-POLE, 4NO, SZ: S0, SCREW TERMINAL 1NO+1NC INTEGR.

product brand name	SIRIUS
Product designation	3RT2 contactor
General technical data:	
Product expansion function module for communication	No
Insulation voltage	
• Rated value	690 V
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
Degree of pollution	3
Shock resistance	
• at rectangular impulse	
— for DC	10g / 5 ms, 7,5g / 10 ms
• with sine pulse	
— for DC	15g / 5 ms, 10g / 10 ms
Surge voltage resistance Rated value	6 kV
Mechanical service life (switching cycles)	
• of the 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
Thermal short-time current restricted to 10 s	260 A
Protection class IP	
• on the front	IP20

• of the terminal	IP20
Equipment marking	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
Main circuit:	
Number of poles for main current circuit	4
Number of NC contacts for main contacts	0
Number of NO contacts for main contacts	4
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	50 A
— up to 690 V at ambient temperature 40 °C Rated value	50 A
— up to 690 V at ambient temperature 60 °C Rated value	42 A
• at AC-2 at 400 V Rated value	17 A
• at AC-3	
— at 400 V Rated value	15.5 A
• at AC-4 at 400 V Rated value	15.5 A
Operating current with 1 current path	
• at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	4.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.4 A
• at DC-3 at DC-5	
— at 24 V Rated value	20 A
— at 110 V Rated value	2.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.09 A
Operating current with 2 current paths in series	
• at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	42 A
— at 220 V Rated value	1 A
— at 440 V Rated value	1 A
• at DC-3 at DC-5	
— at 110 V Rated value	15 A
— at 220 V Rated value	3 A

— at 24 V Rated value	42 A
— at 440 V Rated value	0.27 A
Operating current with 3 current paths in series	
• at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	42 A
— at 220 V Rated value	42 A
— at 440 V Rated value	2.9 A
• at DC-3 at DC-5	
— at 110 V Rated value	42 A
— at 220 V Rated value	10 A
— at 24 V Rated value	42 A
— at 440 V Rated value	0.6 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	16 kW
— at 400 V at 60 °C Rated value	28 kW
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	2.7 W
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
No-load switching frequency	
• for DC	1 500 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
• Rated value	220 V
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 ... 1.1
Closing power of the magnet coil for DC	5.9 W
Holding power of the magnet coil for DC	5.9 W
Closing delay	
• for DC	50 ... 170 ms
Opening delay	
• for DC	15 ... 17.5 ms
Arcing time	10 ... 10 ms
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 	1
Product expansion Auxiliary switch	Yes
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 690 V Rated value 	1 A
Operating current at DC-12	
<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 	2 A
<ul style="list-style-type: none"> • at 220 V Rated value 	1 A
<ul style="list-style-type: none"> • at 600 V Rated value 	0.15 A
Operating current at DC-13	
<ul style="list-style-type: none"> • at 24 V Rated value 	10 A
<ul style="list-style-type: none"> • at 60 V Rated value 	2 A
<ul style="list-style-type: none"> • at 110 V Rated value 	1 A
<ul style="list-style-type: none"> • at 125 V Rated value 	0.9 A
<ul style="list-style-type: none"> • at 220 V Rated value 	0.3 A
<ul style="list-style-type: none"> • at 600 V Rated value 	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	
<ul style="list-style-type: none"> • at 480 V Rated value 	14 A
<ul style="list-style-type: none"> • at 600 V Rated value 	17 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor — at 110/120 V Rated value — at 230 V Rated value 	1 hp 3 hp
<ul style="list-style-type: none"> • 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 	3 hp 5 hp 10 hp 15 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: 63 A
 gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 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
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	85 mm
Width	61 mm
Depth	107 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — 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	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals 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 (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²)

- finely stranded with core end processing
- for AWG conductors for main contacts
- for auxiliary contacts
 - single or multi-stranded
 - finely stranded with core end processing
- for AWG conductors for auxiliary contacts

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
 2x (16 ... 12), 2x (14 ... 8)

2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)
 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 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
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Protection against electrical shock	finger-safe

Mechanical data:

Size of contactor	S0
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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

Certificates/ approvals:

General Product Approval	EMC	Functional Safety/Safety of Machinery
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CCC



CSA



UL



C-TICK

[Type Examination](#)

Declaration of Conformity	Test Certificates	Shipping Approval
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EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



DNV

Shipping Approval	other
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GL



LRS



PRS



RINA



RMRS

[Confirmation](#)

other

[Environmental Confirmations](#)



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

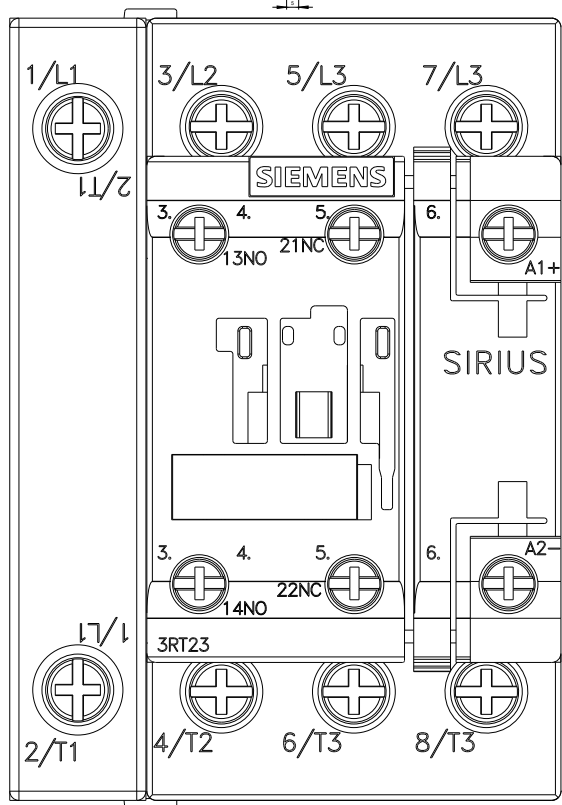
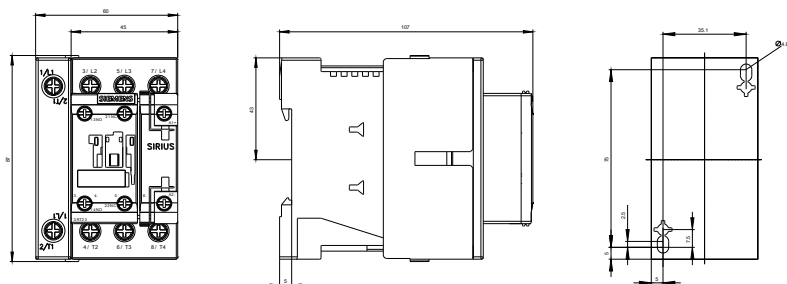
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT23271BM40>

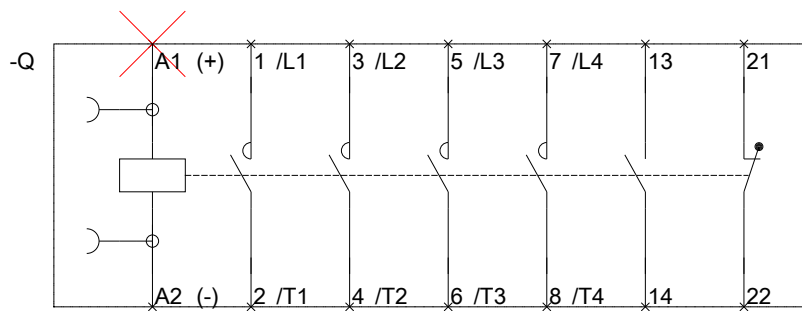
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT23271BM40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT23271BM40&lang=en





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