



2NO+2NC CONTACTOR, AC3: 7.5KW DC 220V 4-POLE,
2NO+2NC, SZ: S00, SCREW TERMINAL

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	7.3g / 5 ms, 4.7g / 10 ms
• with sine pulse	
— for DC	11,4g / 5 ms, 7,3g / 10 ms
Surge voltage resistance Rated value	6 kV
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
Protection class IP	
• on the front	IP20
Equipment marking	

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

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Main circuit:

Number of poles for main current circuit	4
Number of NC contacts for main contacts	2
Number of NO contacts for main contacts	2
Operating current	
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — 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 AC-3 at 400 V <ul style="list-style-type: none"> — per NO contact Rated value — per NC contact Rated value 	22 A 20 A 16 A 9 A
Operating current with 1 current path	
<ul style="list-style-type: none"> • 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 DC-3 at DC-5 <ul style="list-style-type: none"> — 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 	20 A 2.1 A 0.8 A 0.6 A 20 A 20 A 0.075 A 0.15 A 0.375 A 0.75 A
Operating current with 2 current paths in series	
<ul style="list-style-type: none"> • 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 DC-3 at DC-5 <ul style="list-style-type: none"> — 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 12 A 1.6 A 0.8 A 0.175 A 0.35 A 20 A 20 A
Operating power	
<ul style="list-style-type: none"> • at AC-2 at AC-3 	

— at 230 V per NC contact Rated value	2.2 kW
— at 230 V per NO contact Rated value	4 kW
— at 400 V per NC contact Rated value	4 kW
— at 400 V per NO contact Rated value	7.5 kW
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	2.2 W
Operating frequency	
• at AC-1 maximum	1 000 1/h
No-load switching frequency	
• with AC	10 000 1/h
• for DC	10 000 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	4 W
Holding power of the magnet coil for DC	4 W
Closing delay	
• for DC	30 ... 100 ms
Opening delay	
• for DC	7 ... 13 ms
Arcing time	10 ... 15 ms

Auxiliary circuit:	
Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	0
Number of NO contacts	
• for auxiliary contacts	
— instantaneous contact	0
Product expansion Auxiliary switch	Yes
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 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	
<ul style="list-style-type: none"> • at 24 V Rated value • at 60 V Rated value • at 110 V Rated value • at 220 V Rated value • at 600 V Rated value 	<p>10 A</p> <p>2 A</p> <p>1 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:

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 	<p>1 hp</p> <p>2 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	57.5 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 — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	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-section	
• for main contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ²
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors for main contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12
• for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ²
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• 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	
• 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; 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
Protection against electrical shock	finger-safe

Mechanical data:

Size of contactor	S00
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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

Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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CCC



CSA



UL

[Type Examination](#)



EG-Konf.

Test Certificates	Shipping Approval
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[Special Test Certificate](#)



ABS



BUREAU VERITAS



DNV



GL



LRS

Shipping Approval	other
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PRS



RINA



RMRS

[Confirmation](#)

[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

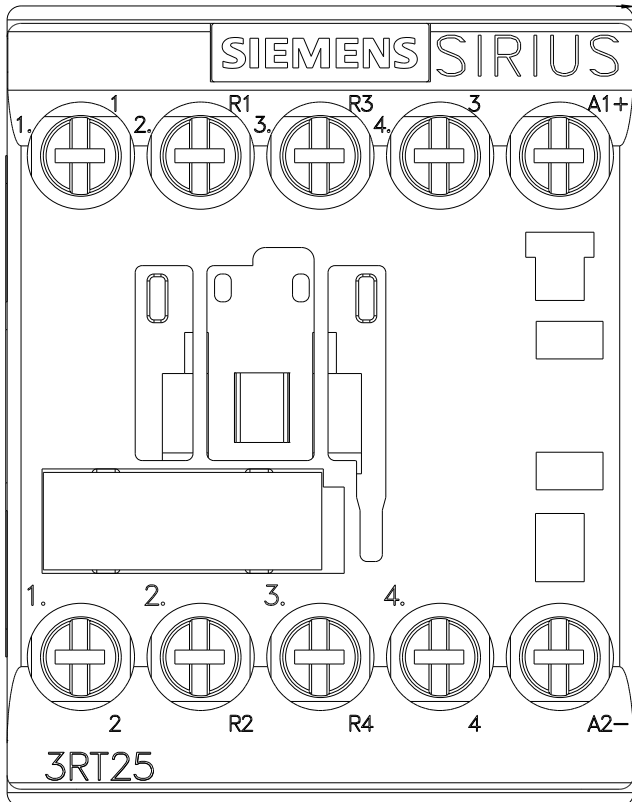
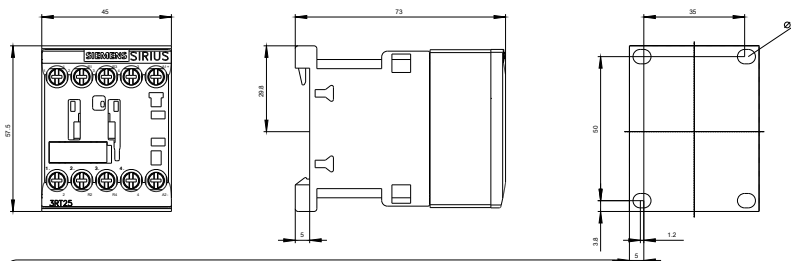
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT25181BM40>

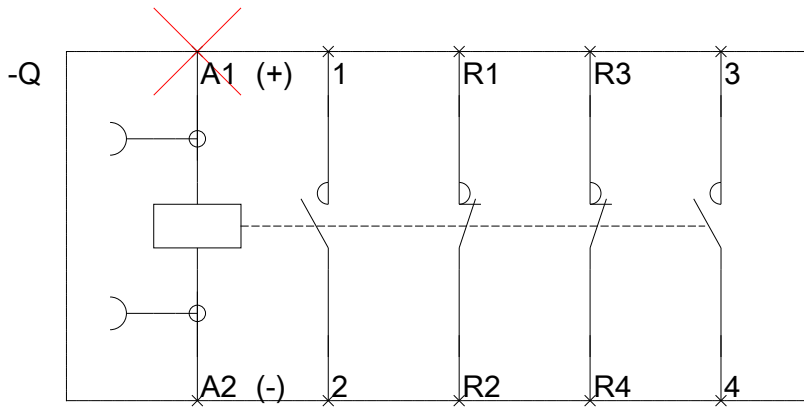
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT25181BM40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT25181BM40&lang=en





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14.05.2015