



CONTACTOR, AC-3, 4KW/400V, 2NO+2NC, DC 24V,
3-POLE, SZ S00 SCREW TERMINAL PERMANENT
AUX. SWITCH FOR SUVA APPLICATIONS

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data:

Insulation voltage		
<ul style="list-style-type: none"> Rated value 	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul style="list-style-type: none"> of the contactor typical 		10 000 000
<ul style="list-style-type: none"> of the contactor with added electronics-compatible auxiliary switch block typical 		5 000 000
<ul style="list-style-type: none"> of the contactor with added auxiliary switch block typical 		10 000 000
Thermal short-time current restricted to 10 s	A	72
Protection class IP		
<ul style="list-style-type: none"> on the front 		IP20
<ul style="list-style-type: none"> of the terminal 		IP20
Equipment marking		
<ul style="list-style-type: none"> acc. to DIN EN 61346-2 		Q
<ul style="list-style-type: none"> acc. to DIN EN 81346-2 		Q

Main circuit:

Number of poles for main current circuit		3
Number of NC contacts for main contacts		0
Number of NO contacts for main contacts		3
Operating voltage		

<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	V	690
Operating current		
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 400 V at ambient temperature 40 °C Rated value — 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 400 V Rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value • at AC-4 at 400 V Rated value 	A	22 22 20 9 9 7.7 6.7 8.5
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 600 V Rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	A	20 2.1 0.8 0.6 0.6 20 0.1
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 600 V Rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	A	20 12 1.6 0.8 0.7 0.35 20
Operating current with 3 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 600 V Rated value 	A	20 20 20 1.3 1

<ul style="list-style-type: none"> • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 220 V Rated value — at 24 V Rated value — at 440 V Rated value — at 600 V Rated value 	A	20
	A	1.5
	A	20
	A	0.2
	A	0.2
Operating power		
<ul style="list-style-type: none"> • at AC-1 at 400 V Rated value • at AC-2 at 400 V Rated value • at AC-4 at 400 V Rated value 	kW	13
	kW	4
	kW	4
Operating power		
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C Rated value — at 230 V Rated value — at 400 V at 60 °C Rated value — at 690 V at 60 °C Rated value — at 690 V Rated value • at AC-3 <ul style="list-style-type: none"> — at 230 V Rated value — at 400 V Rated value — at 690 V Rated value 	kW	7.5
	kW	7.5
	kW	13
	kW	22
	kW	22
	kW	2.2
	kW	4
	kW	5.5
Operating power for ≥ 200000 operating cycles at AC-4		
<ul style="list-style-type: none"> • at 400 V Rated value • at 690 V Rated value 	kW	2
	kW	2.5
Operating frequency		
<ul style="list-style-type: none"> • at AC-3 maximum 	1/h	750

Control circuit/ Control:

Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
<ul style="list-style-type: none"> • Rated value 	V	24
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	W	4
Holding power of the magnet coil for DC	W	4

Auxiliary circuit:

Number of NC contacts		
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact 		2
Number of NO contacts		
<ul style="list-style-type: none"> • for auxiliary contacts 		

— instantaneous contact		2
Product expansion Auxiliary switch		No
Operating current at AC-15		
• at 230 V Rated value	A	6
• at 400 V Rated value	A	3
• at 690 V Rated value	A	1
Operating current		
• at DC-12 at 125 V Rated value	A	2
• at DC-12 at 220 V Rated value	A	1
• at DC-12 at 600 V Rated value	A	0.15
• at DC-13 at 125 V Rated value	A	0.9
• at DC-13 at 220 V Rated value	A	0.3
• at DC-13 at 600 V Rated value	A	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	A	6
— at 110 V Rated value	A	3
• at DC-13		
— at 24 V Rated value	A	6
— at 60 V Rated value	A	2
— at 110 V Rated value	A	1
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	A	7.6
• at 600 V Rated value	A	9
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.33
• for single-phase AC motor at 230 V Rated value	metric hp	1
• for three-phase AC motor at 200/208 V Rated value	metric hp	2
• for three-phase AC motor at 220/230 V Rated value	metric hp	3
• for three-phase AC motor at 460/480 V Rated value	metric hp	5
• for three-phase AC motor at 575/600 V Rated value	metric hp	7.5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:

Design of the fuse link		
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- 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
<ul style="list-style-type: none"> • Side-by-side mounting 		Yes
Height	mm	57.5
Width	mm	45
Depth	mm	117
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 	mm	0 0 0 0 0 0 0 0 6 0 0 0 0 0 6

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 		

- single or multi-stranded
- 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 (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
	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	%	40
• with high demand rate acc. to SN 31920	%	73
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
Product function Mirror contact acc. to IEC 60947-4-1		Yes
T1 value for proof test interval or service life acc. to IEC 61508	y	20
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	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-55 ... +80

Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
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[Type Examination](#)



[Special Test Certificate](#)

Shipping Approval



Shipping Approval	other
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[Environmental Confirmations](#)

[Confirmation](#)



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

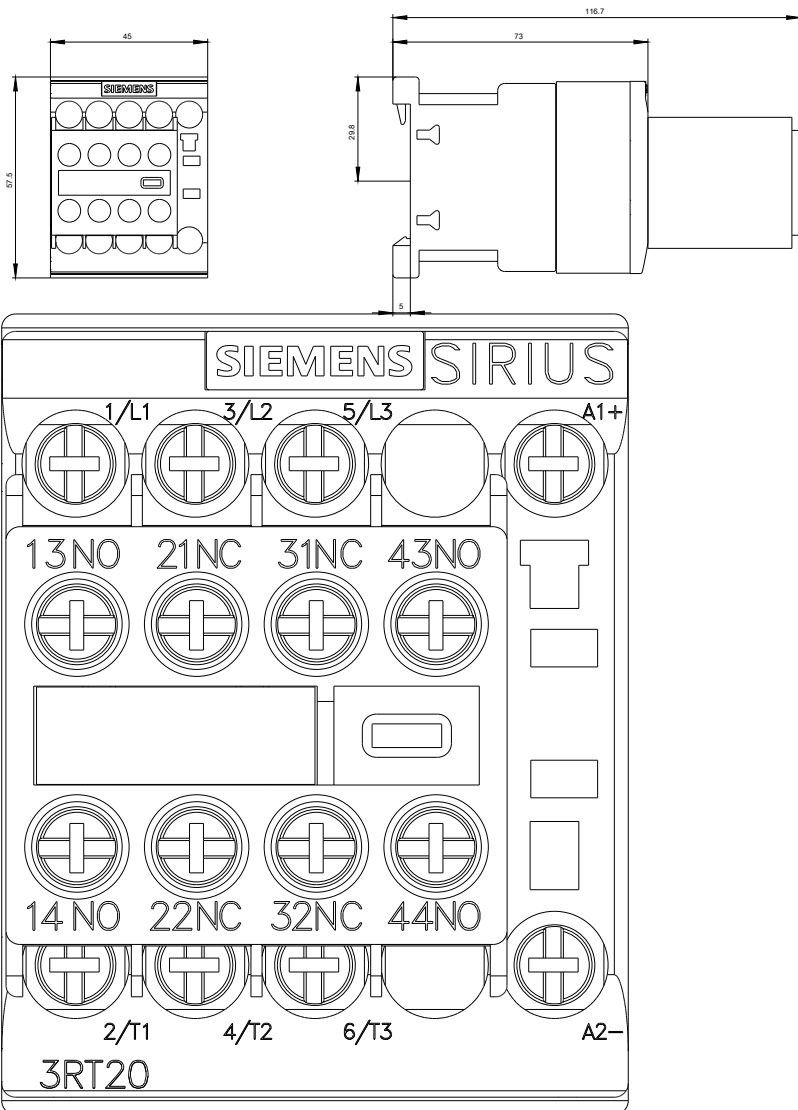
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20161BB443MA0>

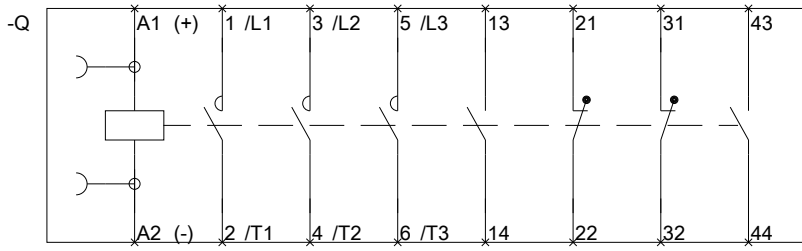
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT20161BB443MA0/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20161BB443MA0&lang=en





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