

CONTACTOR, AC-3, 3KW/400V, 1NC, AC 480V 60HZ,
3-POLE, SZ S00 SCREW TERMINAL

product brand name		SIRIUS
Product designation		3RT2 contactor

General technical data:

Insulation voltage		
• Rated value	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
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
Thermal short-time current restricted to 10 s	A	56
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		3
Number of NC contacts for main contacts		0
Number of NO contacts for main contacts		3
Operating voltage		
• at AC-3 Rated value maximum	V	690
Operating current		
• at AC-1		
— at 400 V at ambient temperature 40 °C Rated value	A	18
— up to 690 V at ambient temperature 40 °C Rated value	A	18
— up to 690 V at ambient temperature 60 °C Rated value	A	16
• at AC-2 at 400 V Rated value	A	7
• at AC-3		

— at 400 V Rated value	A	7
— at 500 V Rated value	A	6
— at 690 V Rated value	A	4.9
• at AC-4 at 400 V Rated value	A	6.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	A	15
— at 110 V Rated value	A	1.5
— at 220 V Rated value	A	0.6
— at 440 V Rated value	A	0.42
— at 600 V Rated value	A	0.42
• at DC-3 at DC-5		
— at 24 V Rated value	A	15
— at 110 V Rated value	A	0.1
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	A	15
— at 110 V Rated value	A	8.4
— at 220 V Rated value	A	1.2
— at 440 V Rated value	A	0.6
— at 600 V Rated value	A	0.5
• at DC-3 at DC-5		
— at 110 V Rated value	A	0.25
— at 24 V Rated value	A	15
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	A	15
— at 110 V Rated value	A	15
— at 220 V Rated value	A	15
— at 440 V Rated value	A	0.9
— at 600 V Rated value	A	0.7
• at DC-3 at DC-5		
— at 110 V Rated value	A	15
— at 220 V Rated value	A	1.2
— at 24 V Rated value	A	15
— at 440 V Rated value	A	0.14
— at 600 V Rated value	A	0.14
Operating power		
• at AC-1 at 400 V Rated value	kW	11
• at AC-2 at 400 V Rated value	kW	3
• at AC-4 at 400 V Rated value	kW	3

Operating power		
• at AC-1		
— at 230 V at 60 °C Rated value	kW	6
— at 230 V Rated value	kW	6.3
— at 400 V at 60 °C Rated value	kW	10.5
— at 690 V at 60 °C Rated value	kW	18
— at 690 V Rated value	kW	19
• at AC-3		
— at 230 V Rated value	kW	1.5
— at 400 V Rated value	kW	3
— at 690 V Rated value	kW	4
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	1.15
• at 690 V Rated value	kW	1.15
Operating frequency		
• at AC-3 maximum	1/h	750

Control circuit/ Control:

Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
• at 60 Hz Rated value	V	480
Operating range factor control supply voltage rated value of the magnet coil with AC		
• at 60 Hz		0.8 ... 1.1

Auxiliary circuit:

Number of NC contacts		
• for auxiliary contacts		
— instantaneous contact		1
Number of NO contacts		
• for auxiliary contacts		
— instantaneous contact		0
Product expansion Auxiliary switch		
		Yes
Operating current at AC-15		
• at 230 V Rated value	A	10
• 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

<ul style="list-style-type: none"> • at DC-13 at 220 V Rated value • at DC-13 at 600 V Rated value 	A	0.3
	A	0.1
Operating current		
<ul style="list-style-type: none"> • at DC-12 <ul style="list-style-type: none"> — at 60 V Rated value — at 110 V Rated value • at DC-13 <ul style="list-style-type: none"> — at 24 V Rated value — at 60 V Rated value — at 110 V Rated value 	A	6
	A	3
	A	10
	A	2
	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		
<ul style="list-style-type: none"> • at 480 V Rated value • at 600 V Rated value 	A	4.8
	A	6.1
yielded mechanical performance [hp]		
<ul style="list-style-type: none"> • for single-phase AC motor at 110/120 V Rated value • for single-phase AC motor at 230 V Rated value • for three-phase AC motor at 200/208 V Rated value • for three-phase AC motor at 220/230 V Rated value • for three-phase AC motor at 460/480 V Rated value • for three-phase AC motor at 575/600 V Rated value 	metric hp	0.25
	metric hp	0.75
	metric hp	1.5
	metric hp	2
	metric hp	3
	metric hp	5
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 		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
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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	73
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
	mm	0
	mm	0
	mm	0
	mm	0
	mm	0
	mm	6
	mm	0
	mm	0
	mm	0
	mm	0
	mm	0
	mm	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 <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts • for auxiliary contacts <ul style="list-style-type: none"> — 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
Apparent pick-up power of the magnet coil with AC		
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	V·A V·A	27 31.7

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
• Note		with 3RH29
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	Declaration of Conformity	other
 CCC	 UL	 EG-Konf.
 CSA	 EAC	Environmental Confirmations

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=3RT20151AV62>

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

<http://support.automation.siemens.com/WW/view/en/3RT20151AV62/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=3RT20151AV62&lang=en

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