

CONTACTOR, AC-3, 15KW/400V, 1NO+1NC,
DC 24V, 3-POLE,
SZ S0 SPRING-LOADED TERMINAL

General technical data:

product brand name		SIRIUS
Size of contactor		S0
Product expansion		Yes
<ul style="list-style-type: none"> • Auxiliary switch • function module for communication 		No
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at height above sea level / maximum	m	2,000
Ambient temperature		
<ul style="list-style-type: none"> • during storage • during operation 	°C	-55 ... +80
	°C	-25 ... +60
Shock resistance		
<ul style="list-style-type: none"> • at rectangular impulse <ul style="list-style-type: none"> • for DC • with sine pulse <ul style="list-style-type: none"> • for DC 		10g / 5 ms, 7,5g / 10 ms
		15g / 5 ms, 10g / 10 ms
Surge voltage resistance / Rated value	kV	6
Insulation voltage / Rated value	V	690

maximum permissible voltage for safe isolation / between coil and main contacts / acc. to EN 60947-1	V	400
Mechanical service life (switching cycles)		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000
Main circuit:		
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Connectable conductor cross-section / in main circuit		
• at AC-1		
• at 40 °C / minimum permissible	mm ²	10
• at 60 °C / minimum permissible	mm ²	10
Operating current		
• at AC-1 / up to 690 V		
• at ambient temperature 40 °C / Rated value	A	50
• at ambient temperature 60 °C / Rated value	A	42
• at AC-2 / at 400 V / Rated value	A	32
• at AC-3		
• at 400 V / Rated value	A	32
• at 500 V / Rated value	A	32
• at 690 V / Rated value	A	21
• at AC-4 / at 400 V / Rated value	A	22
Operating current / for ≥ 200000 operating cycles / at AC-4		
• at 400 V / Rated value	A	12
• at 690 V / Rated value	A	12
Operating current		
• with 1 current path / at DC-1		
• at 24 V / Rated value	A	35
• at 110 V / Rated value	A	4.5
• at 220 V / Rated value	A	1
• at 440 V / Rated value	A	0.4
• at 600 V / Rated value	A	0.25
• with 2 current paths in series / at DC-1		
• at 24 V / Rated value	A	35
• at 110 V / Rated value	A	35
• at 220 V / Rated value	A	5
• at 440 V / Rated value	A	1
• at 600 V / Rated value	A	0.8

<ul style="list-style-type: none"> • with 3 current paths in series / 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	35
	A	35
	A	35
	A	2.9
	A	1.4
Operating current		
<ul style="list-style-type: none"> • with 1 current path / at DC-3 / at DC-5 <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 • with 2 current paths in series / at DC-3 / at DC-5 <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 • with 3 current paths in series / at DC-3 / at DC-5 <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
	A	2.5
	A	1
	A	0.09
	A	0.06
	A	35
	A	15
	A	3
	A	0.27
	A	0.16
	A	35
	A	35
	A	10
	A	0.6
	A	0.6
Operating power		
<ul style="list-style-type: none"> • at AC-1 / at 230 V / Rated value • at AC-1 / at 400 V / Rated value • at AC-1 / at 690 V / Rated value • at AC-2 <ul style="list-style-type: none"> • at 400 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 • at AC-4 <ul style="list-style-type: none"> • at 400 V / Rated value 	kW	16
	kW	28
	kW	48
	kW	15
	kW	7.5
	kW	15
	kW	18.5
	kW	11
Operating power / for \geq 200000 operating cycles / at AC-4		
<ul style="list-style-type: none"> • at 400 V / Rated value • at 690 V / Rated value 	kW	6
	kW	10.3

Thermal short-time current / restricted to 10 s	A	260
Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor	W	2.7
No-load switching frequency • for DC	1/h	1,500
Operating frequency • at AC-1 / maximum • at AC-2 / maximum • at AC-3 / maximum • at AC-4 / maximum	1/h 1/h 1/h 1/h	1,000 750 750 250

Control circuit/ Control:

Type of voltage / of the control supply voltage		DC
Control supply voltage • for DC / 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	5.9
Holding power / of the magnet coil / for DC	W	5.9
Closing delay • for DC	ms	50 ... 170
Opening delay • for DC	ms	15 ... 17.5
Arcing time	ms	10 ... 10
Residual current / of the electronics / for control with signal <0> • with AC / at 230 V / maximum permissible • for DC / at 24 V / maximum permissible	mA mA	7 16

Auxiliary circuit:

Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts / instantaneous contact		1
Number of NO contacts / for auxiliary contacts / instantaneous contact		1
Operating current • at AC-12 / maximum • at AC-15 • at 230 V / Rated value • at 400 V / Rated value • at 500 V / Rated value • at 690 V / Rated value	A A A A A	10 10 3 2 1

Operating current / at DC-12		
• at 24 V / Rated value	A	10
• at 48 V / Rated value	A	6
• at 60 V / Rated value	A	6
• at 110 V / Rated value	A	3
• at 125 V / Rated value	A	2
• at 220 V / Rated value	A	1
• at 440 V / Rated value	A	0.3
• at 600 V / Rated value	A	0.15

Operating current / at DC-13		
• at 24 V / Rated value	A	10
• at 48 V / Rated value	A	2
• at 60 V / Rated value	A	2
• at 110 V / Rated value	A	1
• at 125 V / Rated value	A	0.9
• at 220 V / Rated value	A	0.3
• at 440 V / Rated value	A	0.14
• at 600 V / Rated value	A	0.1

UL/CSA ratings:

yielded mechanical performance [hp]		
• for single-phase AC motor		
• at 110/120 V / Rated value	hp	2
• at 230 V / Rated value	hp	5
• for three-phase AC motor		
• at 200/208 V / Rated value	hp	10
• at 220/230 V / Rated value	hp	10
• at 460/480 V / Rated value	hp	20
• at 575/600 V / Rated value	hp	25

Full-load current (FLA) / for three-phase AC motor		
• at 480 V / Rated value	A	27
• at 600 V / Rated value	A	27

Contact rating / of the auxiliary contacts / acc. to UL		A600 / Q600
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Short-circuit:

Design of the fuse link		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A

- with type of assignment 2 / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:
35A

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
Mounting type / Side-by-side mounting		Yes
Width	mm	45
Height	mm	102
Depth	mm	107
Spacing required / with side-by-side mounting	mm	0

Connections/ terminals:

Design of the electrical connection		
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 		spring-loaded terminals spring-loaded 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 • finely stranded / without core end processing • for AWG conductors / for main contacts 		2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²) 2x (18 ... 8)
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 • finely stranded / with core end processing • finely stranded / without core end processing • for AWG conductors / for auxiliary contacts 		2x (0,5 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (20 ... 14)

Safety related data:

B10 value / with high demand rate		
<ul style="list-style-type: none"> • acc. to SN 31920 		1,000,000
T1 value / for proof test interval or service life		
<ul style="list-style-type: none"> • acc. to IEC 61508 	a	20
Proportion of dangerous failures		
<ul style="list-style-type: none"> • with low demand rate / acc. to SN 31920 • with high demand rate / acc. to SN 31920 	%	40
	%	73
Failure rate [FIT] / with low demand rate		
<ul style="list-style-type: none"> • acc. to SN 31920 	FIT	100

Product function

- Mirror contact acc. to IEC 60947-4-1
- positively driven operation acc. to IEC 60947-5-1

Yes

No

Certificates/ approvals:

General Product Approval

EMC

**Functional Safety /
Safety of Machinery**



CCC



CSA



UL



C-TICK

[Type Examination](#)

**Declaration of
Conformity**

Test Certificates



EG-Konf.

[other](#)

[Special Test
Certificate](#)

[Type Test
Certificates/Test
Report](#)

Shipping Approval



ABS



BUREAU
VERITAS



DNV



GL



LRS



PRS

Shipping Approval

other



RINA



RMRS

[Confirmation](#)



VDE

[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

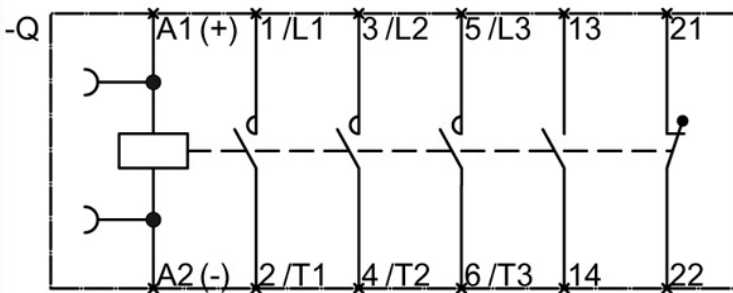
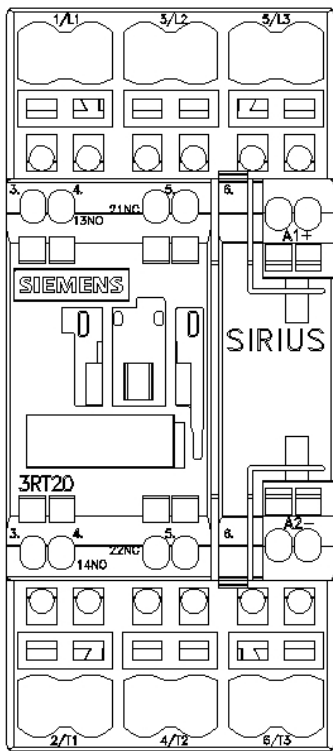
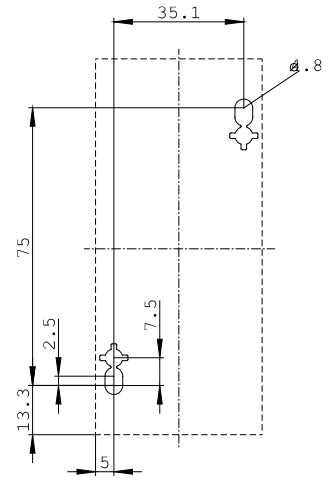
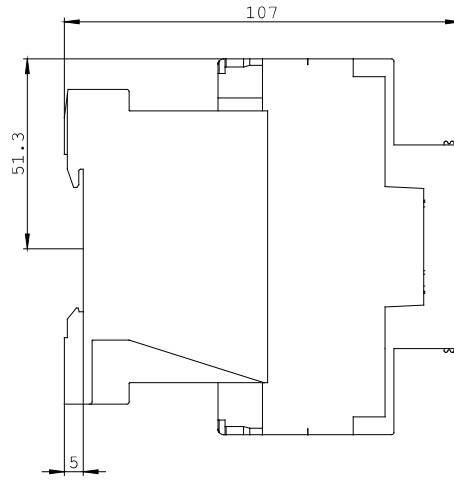
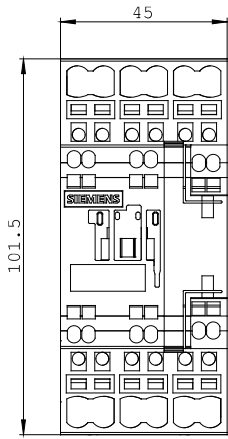
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2027-2BB40/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2027-2BB40



last change:

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