



CONTACTOR,AC3:37KW/400V, 1NO+1NC,
20-33V AC/DC, WITH VARISTOR, 3-POLE,
SIZE S2, SPRING-TYPE TERMINAL

General technical data:		
product brand name		SIRIUS
Size of contactor		S2
Product expansion		
• Auxiliary switch		Yes
• function module for communication		No
Protection class IP / on the front		IP20
Degree of pollution		3
Installation altitude / at height above sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55 ... +80
• during operation	°C	-25 ... +60
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	35
• at 60 °C / minimum permissible	mm ²	35
Operating current		
• at AC-1 / up to 690 V		
• at ambient temperature 40 °C / Rated value	A	90
• at ambient temperature 60 °C / Rated value	A	80
• at AC-2 / at 400 V / Rated value	A	80
• at AC-3		
• at 400 V / Rated value	A	80
• at 500 V / Rated value	A	80
• at 690 V / Rated value	A	58
• at AC-4 / at 400 V / Rated value	A	55
Operating current / for ≥ 200000 operating cycles / at AC-4		
• at 400 V / Rated value	A	30
• at 690 V / Rated value	A	24
Operating current		
• with 1 current path / at DC-1		
• at 24 V / Rated value	A	75
• at 110 V / Rated value	A	4.5
• at 220 V / Rated value	A	2
• 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	75
• at 110 V / Rated value	A	45
• at 220 V / Rated value	A	5
• at 440 V / Rated value	A	1
• at 600 V / Rated value	A	0.8
• with 3 current paths in series / at DC-1		
• at 24 V / Rated value	A	55
• at 110 V / Rated value	A	45
• at 220 V / Rated value	A	45
• at 440 V / Rated value	A	2.9
• at 600 V / Rated value	A	1.4

Operating current		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / Rated value	A	35
• at 110 V / Rated value	A	2.5
• at 220 V / Rated value	A	2
• at 440 V / Rated value	A	0.1
• at 600 V / Rated value	A	0.06
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	A	55
• at 110 V / Rated value	A	25
• at 220 V / Rated value	A	5
• at 440 V / Rated value	A	0.27
• at 600 V / Rated value	A	0.16
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	A	55
• at 110 V / Rated value	A	45
• at 220 V / Rated value	A	25
• at 440 V / Rated value	A	0.6
• at 600 V / Rated value	A	0.6
Operating power		
• at AC-1 / at 230 V / Rated value	kW	34
• at AC-1 / at 400 V / Rated value	kW	59
• at AC-1 / at 690 V / Rated value	kW	102
• at AC-2		
• at 400 V / Rated value	kW	37
• at AC-3		
• at 230 V / Rated value	kW	22
• at 400 V / Rated value	kW	37
• at 500 V / Rated value	kW	37
• at 690 V / Rated value	kW	45
• at AC-4		
• at 400 V / Rated value	kW	30
Operating power / for ≥ 200000 operating cycles / at AC-4		
• at 400 V / Rated value	kW	15.8
• at 690 V / Rated value	kW	21.8
Thermal short-time current / restricted to 10 s		
	A	640
Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor		
	W	5.7
No-load switching frequency		
• with AC	1/h	1,500

• for DC	1/h	1,500
Operating frequency		
• at AC-1 / maximum	1/h	700
• at AC-2 / maximum	1/h	350
• at AC-3 / maximum	1/h	500
• at AC-4 / maximum	1/h	150
Control circuit/ Control:		
Design of the surge suppressor		with varistor
Type of voltage / of the control supply voltage		AC/DC
Control supply voltage		
• for DC		
• Rated value	V	20 ... 33
• with AC / at 50 Hz		
• Rated value	V	20 ... 33
• with AC / at 60 Hz		
• Rated value	V	20 ... 33
Operating range factor control supply voltage rated value / of the magnet coil		
• with AC / at 50 Hz		0.8 ... 1.1
• with AC / at 60 Hz		0.8 ... 1.1
• for DC		0.8 ... 1.1
Apparent pick-up power / of the magnet coil / with AC		
• at 50 Hz	V·A	40
• at 60 Hz	V·A	40
Apparent holding power / of the magnet coil / with AC		
• at 50 Hz	V·A	2
• at 60 Hz	V·A	2
Closing power / of the magnet coil / for DC	W	23
Holding power / of the magnet coil / for DC	W	1
Closing delay		
• with AC	ms	45 ... 70
• for DC	ms	45 ... 60
Opening delay		
• with AC	ms	35 ... 55
• for DC	ms	35 ... 55
Arcing time	ms	10 ... 20
Residual current / of the electronics / for control with signal <0>		
• with AC / at 230 V / maximum permissible	mA	20
• for DC / at 24 V / maximum permissible	mA	20

Auxiliary circuit:**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

10

A

10

A

3

A

2

A

1

Operating current / at DC-12

- at 24 V / Rated value
- at 48 V / Rated value
- at 60 V / Rated value
- at 110 V / Rated value
- at 125 V / Rated value
- at 220 V / Rated value
- at 440 V / Rated value
- at 600 V / Rated value

A

10

A

6

A

6

A

3

A

2

A

1

A

0.3

A

0.15

Operating current / at DC-13

- at 24 V / Rated value
- at 48 V / Rated value
- at 60 V / Rated value
- at 110 V / Rated value
- at 125 V / Rated value
- at 220 V / Rated value
- at 440 V / Rated value
- at 600 V / Rated value

A

10

A

2

A

2

A

1

A

0.9

A

0.3

A

0.14

A

0.1

UL/CSA ratings:**yielded mechanical performance [hp]**

- for single-phase AC motor
 - at 110/120 V / Rated value
 - at 230 V / Rated value
- 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

hp

5

hp

15

hp

20

hp

25

hp

50

hp

60

Full-load current (FLA) / for three-phase AC motor • at 480 V / Rated value • at 600 V / Rated value	A	65
	A	62
Contact rating / of the auxiliary contacts / acc. to UL		A600 / P600

Short-circuit:

Design of the fuse link • for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
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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
Width	mm	55
Height	mm	113.4
Depth	mm	130
Spacing required / with side-by-side mounting	mm	0

Connections/ terminals:

Design of the electrical connection • for main current circuit • for auxiliary and control current circuit		screw-type terminals spring-loaded terminals
Type of connectable conductor cross-section • for main contacts • single or multi-stranded • finely stranded / with core end processing • for AWG conductors / for main contacts		2x (1 ... 35 mm²), 1x (1 ... 50 mm²) 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) 2x (18 ... 2), 1x (18 ... 1)
Type of connectable conductor cross-section • for auxiliary contacts • 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 mm²) 2x (0.5 ... 1.5 mm²) 2x (0.5 ... 2.5 mm²) 2x (20 ... 14)

Safety related data:

Proportion of dangerous failures • with low demand rate / acc. to SN 31920 • with high demand rate / acc. to SN 31920	% %	40 73
Product function • Mirror contact acc. to IEC 60947-4-1		Yes

• positively driven operation acc. to IEC 60947-5-1

No

Certificates/ approvals:

General Product Approval

other



[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

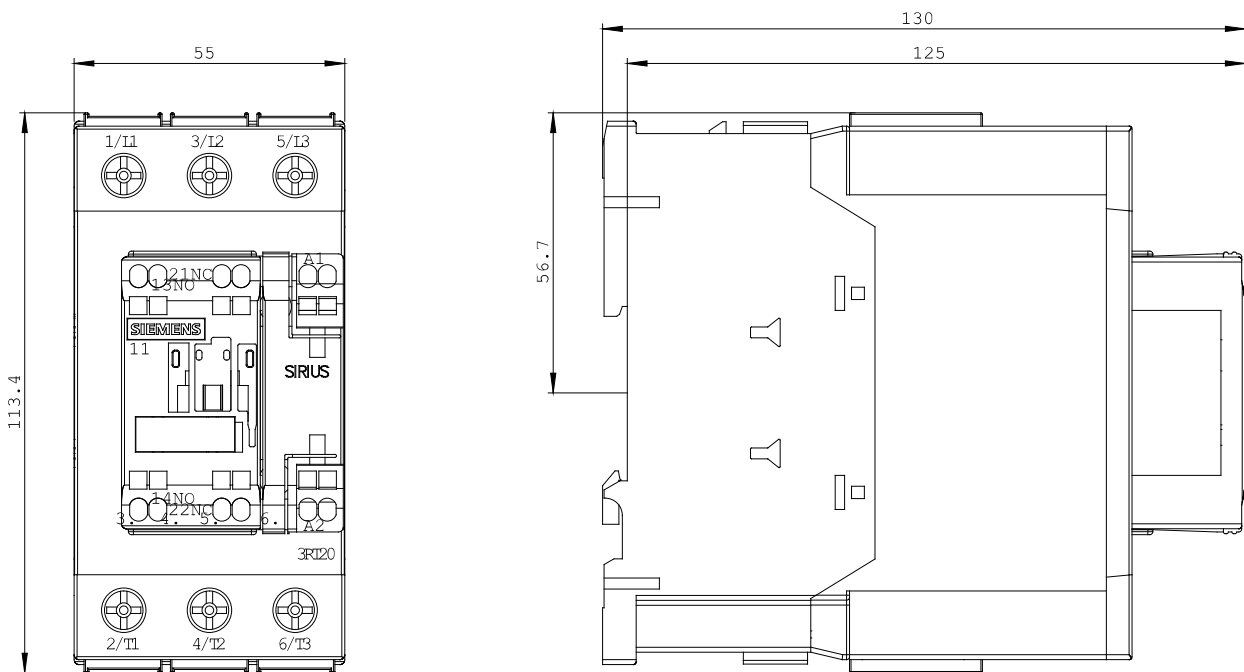
<http://www.siemens.com/cax>

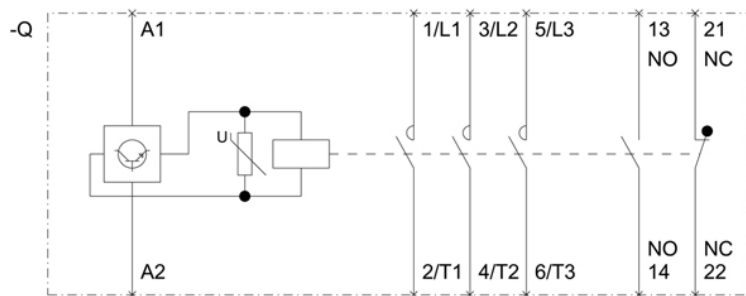
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2038-3NB30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2038-3NB30





last change:

Dec 17, 2014