



CONTACTOR,AC3:22KW/400V,  
1NO+1NC,110VAC 50HZ/120V 60HZ, 3-POLE,  
SIZE S2, SCREW TERMINAL

General technical data:		
product brand name		SIRIUS
Size of contactor		S2
Product expansion		
• Auxiliary switch		No
• 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 <sup>2</sup>	25
• at 60 °C / minimum permissible	mm <sup>2</sup>	25
Operating current		
• at AC-1 / up to 690 V		
• at ambient temperature 40 °C / Rated value	A	70
• at ambient temperature 60 °C / Rated value	A	60
• at AC-2 / at 400 V / Rated value	A	51
• at AC-3		
• at 400 V / Rated value	A	51
• at 500 V / Rated value	A	50
• at 690 V / Rated value	A	24
• at AC-4 / at 400 V / Rated value	A	41
Operating current / for $\geq 200000$ operating cycles / at AC-4		
• at 400 V / Rated value	A	24
• at 690 V / Rated value	A	20
Operating current		
• with 1 current path / at DC-1		
• at 24 V / Rated value	A	60
• 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	60
• 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

<b>Operating current</b>		
• 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
<b>Operating power</b>		
• at AC-1 / at 230 V / Rated value	kW	26
• at AC-1 / at 400 V / Rated value	kW	46
• at AC-1 / at 690 V / Rated value	kW	79
• at AC-2		
• at 400 V / Rated value	kW	22
• at AC-3		
• at 230 V / Rated value	kW	15
• at 400 V / Rated value	kW	22
• at 500 V / Rated value	kW	30
• at 690 V / Rated value	kW	22
• at AC-4		
• at 400 V / Rated value	kW	22
<b>Operating power / for <math>\geq 200000</math> operating cycles / at AC-4</b>		
• at 400 V / Rated value	kW	12.6
• at 690 V / Rated value	kW	18.2
<b>Thermal short-time current / restricted to 10 s</b>		
	A	420
<b>Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor</b>		
	W	4
<b>No-load switching frequency</b>		
• with AC	1/h	5,000

<b>Operating frequency</b>		
• at AC-1 / maximum	1/h	1,200
• at AC-2 / maximum	1/h	600
• at AC-3 / maximum	1/h	1,000
• at AC-4 / maximum	1/h	300

Control circuit/ Control:		
<b>Type of voltage / of the control supply voltage</b>		AC
<b>Control supply voltage</b>		
• with AC / at 50 Hz / Rated value	V	110
• with AC / at 60 Hz / Rated value	V	120
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• with AC / at 50 Hz		0.8 ... 1.1
• with AC / at 60 Hz		0.8 ... 1.1
<b>Apparent pick-up power / of the magnet coil / with AC</b>		
• at 50 Hz	V·A	212
• at 60 Hz	V·A	188
<b>Apparent holding power / of the magnet coil / with AC</b>		
• at 50 Hz	V·A	18.5
• at 60 Hz	V·A	16.5
<b>Closing delay</b>		
• with AC	ms	10 ... 80
<b>Opening delay</b>		
• with AC	ms	10 ... 18
<b>Arcing time</b>	ms	10 ... 20

Auxiliary circuit:		
<b>Number of NC contacts / for auxiliary contacts / instantaneous contact</b>		2
<b>Number of NO contacts / for auxiliary contacts / instantaneous contact</b>		2
<b>Operating current</b>		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V / Rated value	A	6
• at 400 V / Rated value	A	3
• at 500 V / Rated value	A	2
• at 690 V / Rated value	A	1
<b>Operating current / at DC-12</b>		
• 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
<b>Operating current / at DC-13</b>		
• at 24 V / Rated value	A	6
• 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	3
• at 230 V / Rated value	hp	10
• for three-phase AC motor		
• at 200/208 V / Rated value	hp	15
• at 220/230 V / Rated value	hp	15
• at 460/480 V / Rated value	hp	40
• at 575/600 V / Rated value	hp	50

##### Full-load current (FLA) / for three-phase AC motor

• at 480 V / Rated value	A	52
• at 600 V / Rated value	A	52

##### Contact rating / of the auxiliary contacts / acc. to UL

A600 / Q600

#### 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 NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 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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<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Width</b>	mm	55
<b>Height</b>	mm	113.4
<b>Depth</b>	mm	173.5
<b>Spacing required / with side-by-side mounting</b>	mm	0

#### Connections/ terminals:

<b>Design of the electrical connection</b>		
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts               <ul style="list-style-type: none"> <li>• single or multi-stranded</li> <li>• finely stranded / with core end processing</li> </ul> </li> <li>• for AWG conductors / for main contacts</li> </ul>		2x (1 ... 35 mm²), 1x (1 ... 50 mm²) 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) 2x (18 ... 2), 1x (18 ... 1)
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts               <ul style="list-style-type: none"> <li>• single or multi-stranded</li> <li>• finely stranded / with core end processing</li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul>		2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) 2x (20 ... 16), 2x (18 ... 14)

#### Safety related data:

<b>Proportion of dangerous failures</b>		
<ul style="list-style-type: none"> <li>• with low demand rate / acc. to SN 31920</li> <li>• with high demand rate / acc. to SN 31920</li> </ul>	% %	40 73
<b>Product function</b>		
<ul style="list-style-type: none"> <li>• Mirror contact acc. to IEC 60947-4-1</li> <li>• positively driven operation acc. to IEC 60947-5-1</li> </ul>		Yes No

#### Certificates/ approvals:

General Product Approval

other



[Confirmation](#)

#### Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

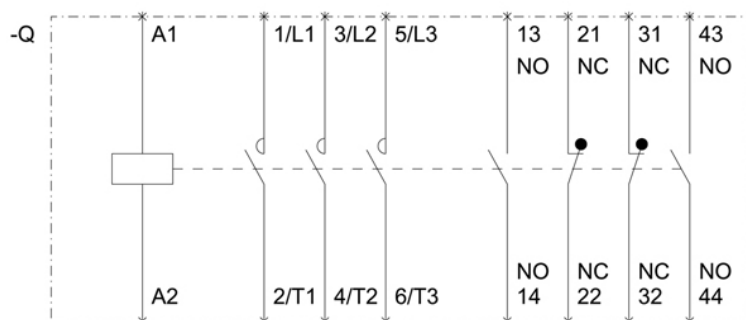
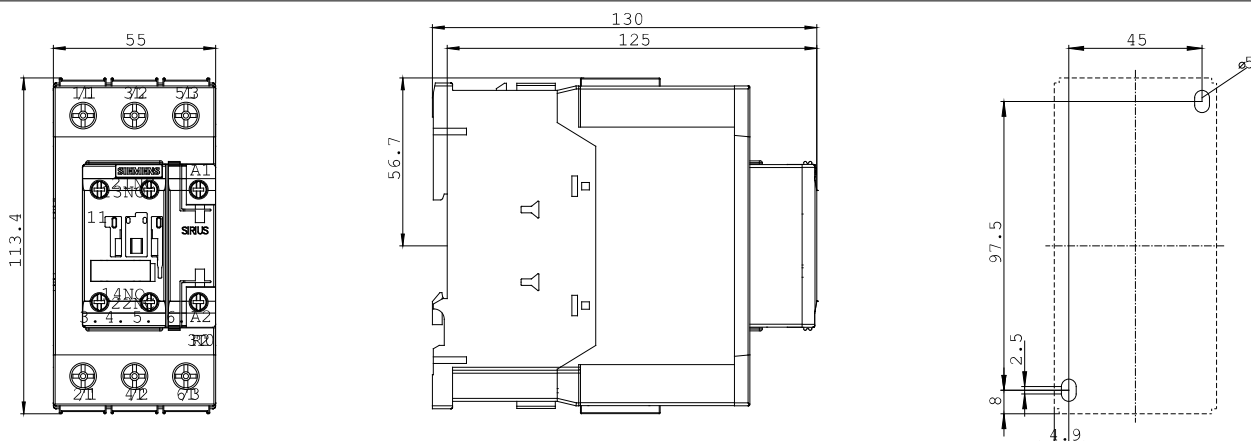
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

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

Cax online generator

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



last change:

Dec 17, 2014