



CONTACTOR, AC-3, 4KW/400V, 1NO, DC 24V,  
3-POLE, SZ S00 SCREW TERMINAL

### General technical data:

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S00
<b>Product extension</b>		
• auxiliary switch		Yes
• function module for communication		No
<b>Protection class IP / on the front</b>		IP20
<b>Protection against electrical shock</b>		finger-safe
<b>Degree of pollution</b>		3
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
<b>Shock resistance</b>		
• at rectangular impulse		
• at DC		6,7g / 5 ms, 4,2g / 10 ms
• at sine pulse		
• at DC		10,5g / 5 ms, 6,6g / 10 ms
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Insulation voltage / rated value</b>	V	690

<b>Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1</b>	V	400
<b>Mechanical operating cycles as operating time</b>		
• of the contactor / typical		30,000,000
• 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
<b>Main circuit:</b>		
<b>Number of NC contacts / for main contacts</b>		0
<b>Number of NO contacts / for main contacts</b>		3
<b>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	m <sup>2</sup>	4
• at 60 °C / minimum permissible	m <sup>2</sup>	2.5
<b>Operating current</b>		
• at AC-1 / up to 690 V		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
• at AC-2 / at 400 V / rated value	A	9
• at AC-3		
• at 400 V / rated value	A	9
• at 500 V / rated value	A	7.7
• at 690 V / rated value	A	6.7
• at AC-4 / at 400 V / rated value	A	8.5
<b>Operating current</b>		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.1
• at 220 V / rated value	A	0.8
• at 440 V / rated value	A	0.6
• at 600 V / rated value	A	0.6
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• at 220 V / rated value	A	1.6
• at 440 V / rated value	A	0.8
• at 600 V / rated value	A	0.7
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20

• at 220 V / rated value	A	20
• at 440 V / rated value	A	1.3
• at 600 V / rated value	A	1
<b>Operating current</b>		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• at 220 V / rated value	A	1.5
• at 440 V / rated value	A	0.2
• at 600 V / rated value	A	0.2
<b>Service power</b>		
• at AC-1 / at 230 V / rated value	kW	7.5
• at AC-1 / at 400 V / rated value	kW	13
• at AC-1 / at 690 V / rated value	kW	22
• at AC-2		
• at 400 V / rated value	kW	4
• at AC-3		
• at 230 V / rated value	kW	2.2
• at 400 V / rated value	kW	4
• at 690 V / rated value	kW	5.5
• at AC-4		
• at 400 V / rated value	kW	4
<b>Thermal short-time current / restricted to 10 s</b>		
	A	72
<b>Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor</b>		
	W	0.7
<b>Off-load operating frequency</b>		
• at DC	1/h	10,000
<b>Frequency of operation</b>		
• at AC-1 / according to IEC 60947-6-2	1/h	1,000
• at AC-2 / according to IEC 60947-6-2	1/h	750
• at AC-3 / according to IEC 60947-6-2	1/h	750
• at AC-4 / according to IEC 60947-6-2	1/h	250

**Control circuit/ Control:**

<b>Type of voltage / of the controlled supply voltage</b>		DC
<b>Control supply voltage</b> • for DC / rated value	V	24
<b>operating range factor control supply voltage rated value / of the magnet coil</b> • for DC		0.8 ... 1.1
<b>Pull-in power / of the solenoid / for DC</b>	W	4
<b>Holding power / of the solenoid / for DC</b>	W	4
<b>Closing delay</b> • at DC	ms	30 ... 100
<b>Opening delay</b> • at DC	ms	7 ... 13
<b>Arcing time</b>	ms	10 ... 15
<b>Residual current / of electronics / for control with signal &lt;0&gt;</b> • at 230 V / with AC / maximum permissible • at 24 V / with DC / maximum permissible	mA mA	3 10

#### Auxiliary circuit:

<b>Contact reliability / of the auxiliary contacts</b>		1 faulty switching per 100 million (17 V, 1 mA)
<b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b>		0
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Operating current</b> • 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
<b>Operating current / at DC-12</b> • 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 A A A A A A A	10 6 6 3 2 1 0.3 0.15
<b>Operating current / at DC-13</b> • at 24 V / rated value	A	10

- 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	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 squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - 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	0.33
hp	1
hp	2
hp	3
hp	5
hp	7.5

##### Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

A	7.6
A	9

##### Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

#### Short-circuit:

##### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
  - with type of assignment 1 / required
  - at type of coordination 2 / required

fuse gL/gG: 10 A  
  
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  
  
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

#### 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

##### Type of mounting

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

##### Type of fixing/fixation / series installation

Yes

##### Width

mm 45

##### Height

mm 57.5

##### Depth

mm 73

<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0
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### Connections/ terminals:

#### Design of the electrical connection

<ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>		screw-type terminals
<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals
<ul style="list-style-type: none"> <li>• for main contacts / finely stranded / with conductor end processing</li> </ul>		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for AWG conductors / for main contacts</li> </ul>		2x (20 ... 16), 2x (18 ... 14), 2x 12
<ul style="list-style-type: none"> <li>• for auxiliary contacts / finely stranded / with conductor end processing</li> </ul>		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for AWG conductors / for auxiliary contacts</li> </ul>		2x (20 ... 16), 2x (18 ... 14), 2x 12

### Sicherheitsrelevante Kenngrößen:

<b>B10 value / with high demand rate</b>		
<ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>		1,000,000
<b>T1 value / for proof test interval or service life</b>		
<ul style="list-style-type: none"> <li>• according to IEC 61508</li> </ul>	a	20
<b>Proportion of dangerous failures</b>		
<ul style="list-style-type: none"> <li>• with low demand rate / according to SN 31920</li> </ul>	%	40
<ul style="list-style-type: none"> <li>• with high demand rate / according to SN 31920</li> </ul>	%	73
<b>Failure rate (FIT value) / with low demand rate</b>		
<ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>	FIT	100
<b>Product function</b>		
<ul style="list-style-type: none"> <li>• mirror contact to IEC 60947-4-1</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• comment</li> </ul>		with 3RH29
<ul style="list-style-type: none"> <li>• positively driven operation to IEC 60947-5-1</li> </ul>		No

### Certificates/ approvals:

**General Product Approval****Functional Safety /  
Safety of  
Machinery**

CCC



CSA



GOST



UL

[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

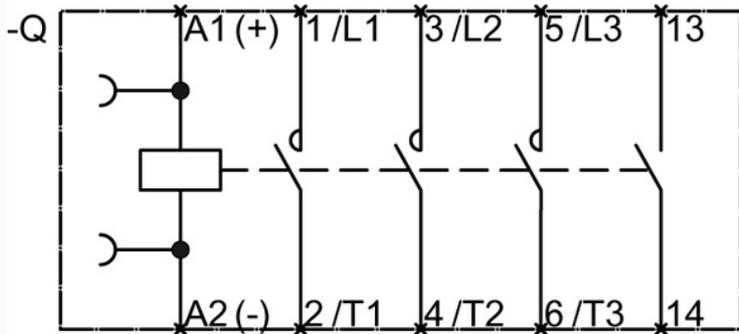
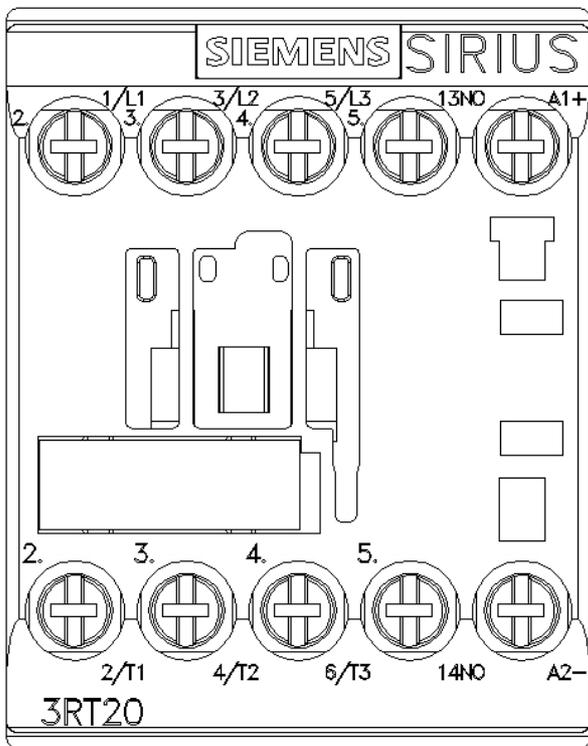
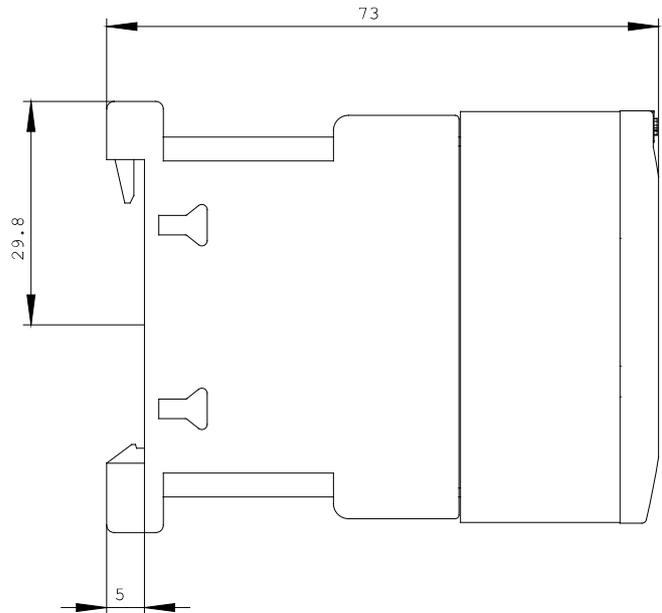
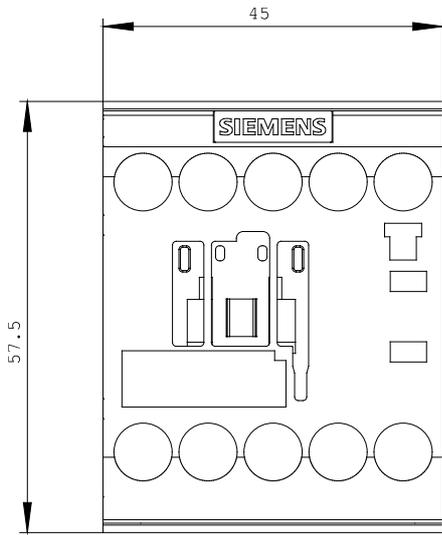


RMRS

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VDE

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last change:

Jan 20, 2014