

CONTACTOR, AC-3, 18.5KW/400V, 1NO+1NC,  
AC 230V 50HZ, 3-POLE,  
SZ S0 RING CABLE LUG CONNECTION

#### General technical data:

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S0
<b>Product extension / auxiliary switch</b>		Yes
<b>Product extension / function module for communication</b>		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 AC		8,3g / 5 ms, 5,3g / 10 ms
• at sine pulse		
• at AC		13,5g / 5 ms, 8,3g / 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		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
<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>Operating current / at AC-1 / at 400 V</b>		
• at 40 °C ambient temperature / rated value	A	50
• at 60 °C ambient temperature / rated value	A	42
<b>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	m <sup>2</sup>	10
• at 60 °C / minimum permissible	m <sup>2</sup>	10
<b>Operational current</b>		
• at AC-2 / at 400 V / rated value	A	38
• at AC-3		
• at 400 V / rated value	A	38
• at 500 V / rated value	A	32
• at 690 V / rated value	A	21
• at AC-4 / at 400 V / rated value	A	22
<b>Operational current</b>		
• 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
• with 3 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	35
• at 440 V / rated value	A	2.9
• at 600 V / rated value	A	1.4
<b>Operational 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	2.5
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.09
• 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	35
• at 110 V / rated value	A	15
• at 220 V / rated value	A	3
• 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	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	10
• at 440 V / rated value	A	0.6
• at 600 V / rated value	A	0.6
<b>Service power</b>		
• at AC-1		
• at 230 V / rated value	kW	16
• at 400 V / rated value	kW	28
• at 500 V / rated value	kW	35
• at 690 V / rated value	kW	48
• at AC-2 / at 400 V / rated value	kW	18.5
• at AC-3		
• at 230 V / rated value	kW	11
• at 400 V / rated value	kW	18.5
• at 690 V / rated value	kW	18.5
• at AC-4 / at 400 V / rated value	kW	11
<b>Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor</b>	W	3.8
<b>Off-load operating frequency</b>		
• at AC	1/h	5,000
• at DC	1/h	1,500
<b>Frequency of operation</b>		

- at AC-1 / according to IEC 60947-6-2
- at AC-2 / according to IEC 60947-6-2
- at AC-3 / according to IEC 60947-6-2
- at AC-4 / according to IEC 60947-6-2

1/h	1,000
1/h	750
1/h	750
1/h	250

#### Control circuit:

<b>Type of voltage / of the controlled supply voltage</b>		AC
<b>Control supply voltage</b>		
• at 50 Hz / at AC / rated value	V	230
<b>operating range factor control supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	87
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	9.8
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.25
<b>Closing delay</b>		
• at AC	ms	8 ... 40
<b>Opening delay</b>		
• at AC	ms	4 ... 16
<b>Arcing time</b>	ms	10 ... 10
<b>Residual current / of electronics / for control with signal &lt;0&gt;</b>		
• at 230 V / with AC / maximum permissible	mA	7
• at 24 V / with DC / maximum permissible	mA	16

#### 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>		1
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Operating current / of the auxiliary contacts</b>		
• [nicht versorgt: PMD_ABP551_001_000]		
•	A	2
• at 690 V	A	1

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b>		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	3

<ul style="list-style-type: none"> <li>• at 230 V / rated value</li> </ul>	hp	5
<ul style="list-style-type: none"> <li>• for three-phase squirrel cage motors</li> </ul>		
<ul style="list-style-type: none"> <li>• at 200/208 V / rated value</li> </ul>	hp	10
<ul style="list-style-type: none"> <li>• at 220/230 V / rated value</li> </ul>	hp	10
<ul style="list-style-type: none"> <li>• at 460/480 V / rated value</li> </ul>	hp	25
<ul style="list-style-type: none"> <li>• at 575/600 V / rated value</li> </ul>	hp	25
<b>Operating current (FLA) / for three-phase squirrel cage motors</b>		
<ul style="list-style-type: none"> <li>• at 480 V / rated value</li> </ul>	A	34
<ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul>	A	27
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		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:  
100 A

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

##### 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 85

##### Depth

mm 97

##### Distance, to be maintained, to the ranks assembly / sideways

mm 0

#### Connections:

##### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

ring cable connection

ring cable connection

#### Sicherheitsrelevante Kenngrößen:

##### B10 value / with high demand rate

- according to SN 31920

1,000,000

##### T1 value / for proof test interval or service life

- according to IEC 61508

a 20

<b>Proportion of dangerous failures</b>		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	73
<b>Failure rate (FIT value) / with low demand rate</b>		
• according to SN 31920	FIT	100
<b>Product function</b>		
• mirror contact to IEC 60947-4-1		Yes
• comment		with 3RH29
• positively driven operation to IEC 60947-5-1		No

#### Certificates/approvals:

<b>General Product Approval</b>	<b>EMC</b>	<b>Functional Safety / Safety of Machinery</b>
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[Type Examination](#)

**Declaration of Conformity**

**Test Certificates**



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

#### Shipping Approval



#### Shipping Approval

other



#### Further information:

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

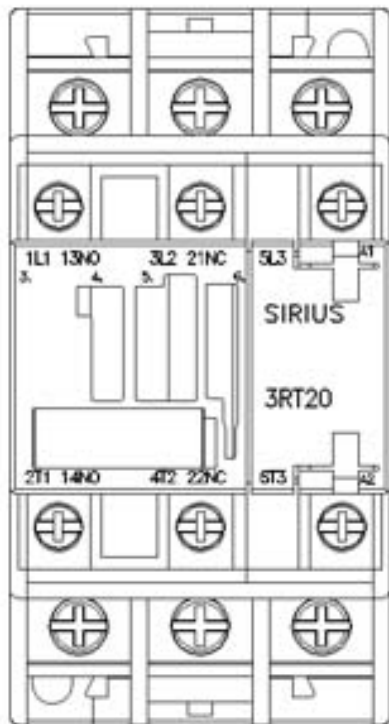
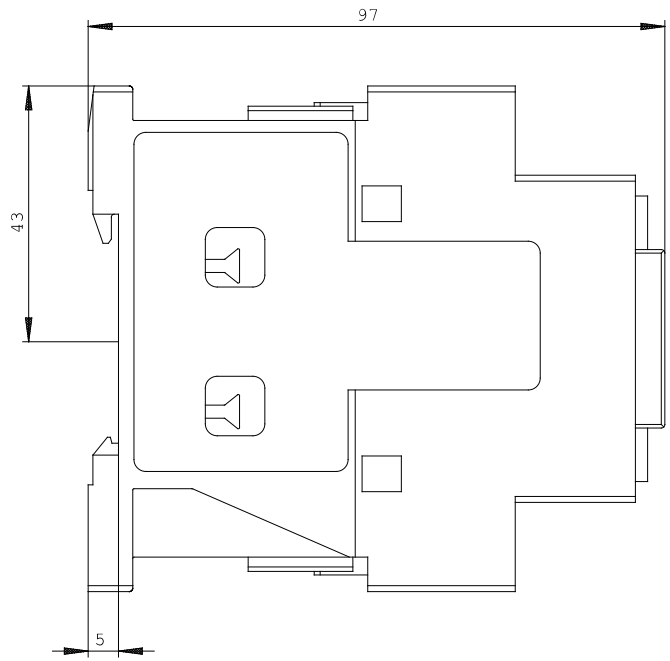
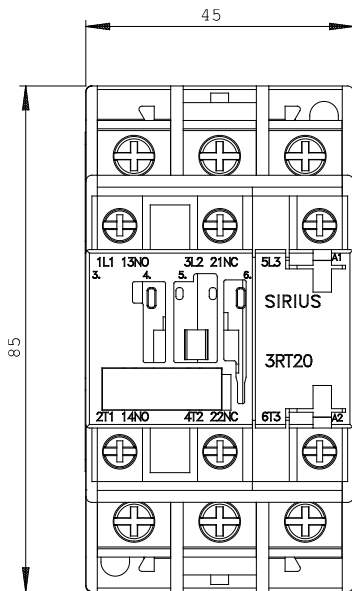
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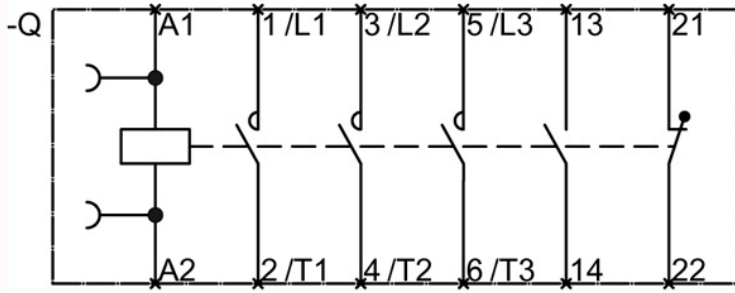
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2028-4AP00/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2028-4AP00](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2028-4AP00)





last change:

Feb 15, 2013