



CONTACTOR, AC-3, 4KW/400V, 1NO, DC 24V,  
W. INTEGRATED DIODE 3-POLE,  
SZ S00 SPRING-LOADED TERMINAL .

#### General technical data:

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S00
<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 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>Operating current / at AC-1 / at 400 V</b>		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
<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>Operational current</b>		
• 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>Operational 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>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	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 400 V / rated value	kW	13
• at 500 V / rated value	kW	17
• 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>Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor</b>	W	0.7
<b>Off-load operating frequency</b>		
• at AC	1/h	10,000
• 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:

<b>Design of the surge suppressor</b>		with diode
<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 / of the auxiliary contacts</b> • [nicht versorgt: PMD_ABP551_001_000] • • at 690 V	A A	2 1

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b> • 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 hp hp hp hp hp	0.33 1 2 3 5 7.5
<b>Operating current (FLA) / for three-phase squirrel cage motors</b> • at 480 V / rated value	A	7.6

• at 600 V / rated value	A	9
<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: 35 A

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

### Installation/mounting/dimensions:

<b>mounting position</b>		standing, on horizontal mounting surface
<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Type of fixing/fixation / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	70
<b>Depth</b>	mm	73
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0

### Connections:

#### Design of the electrical connection

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

spring-loaded terminals

spring-loaded terminals

#### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - finely stranded
    - with conductor end processing
    - without conductor final cutting
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
    - without conductor final cutting
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 4 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (20 ... 12)

2x (0.5 ... 4 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (20 ... 12)

### Sicherheitsrelevante Kenngrößen:

#### B10 value / with high demand rate

• according to SN 31920		1,000,000
<b>T1 value / for proof test interval or service life</b> • according to IEC 61508	a	20
<b>Proportion of dangerous failures</b> • with low demand rate / according to SN 31920 • with high demand rate / according to SN 31920	% %	40 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 • comment • positively driven operation to IEC 60947-5-1		Yes with 3RH29 No

### Certificates/approvals:

#### General Product Approval



CCC

CSA

UL

EG-Konf.

EG-Konf.

#### Shipping Approval



ABS

BUREAU  
VERITAS

DNV

GL

LRS

PRS

#### Shipping Approval



RINA

RMRS

### 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

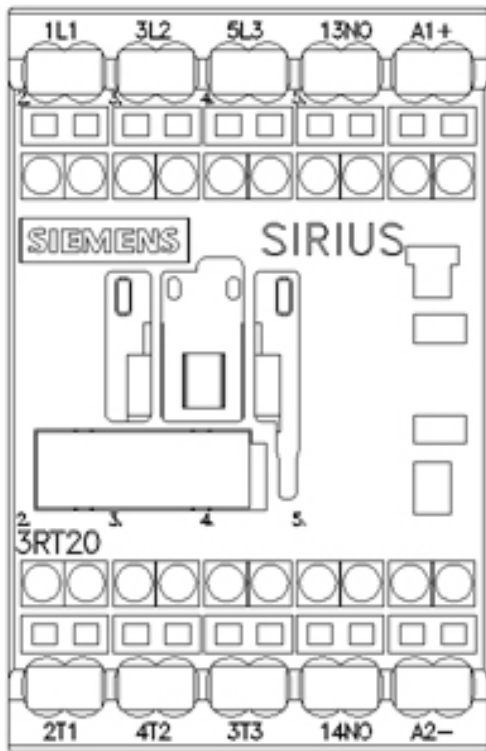
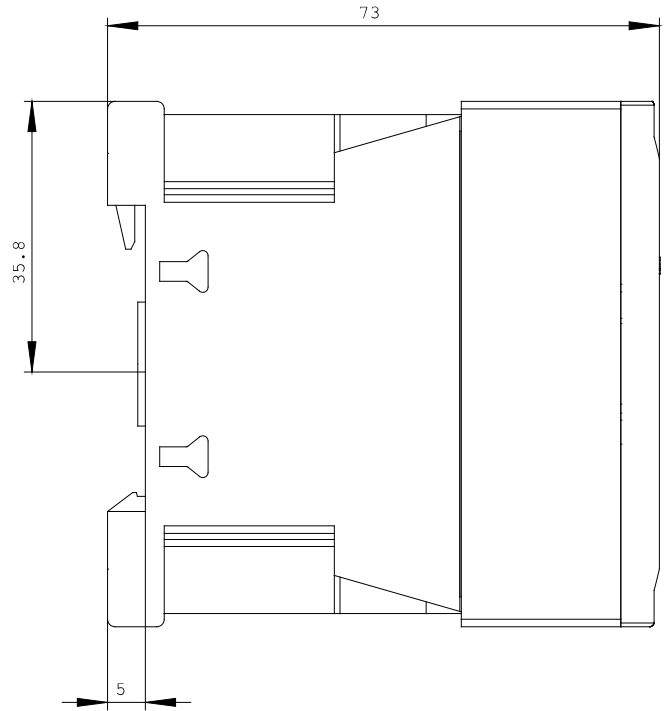
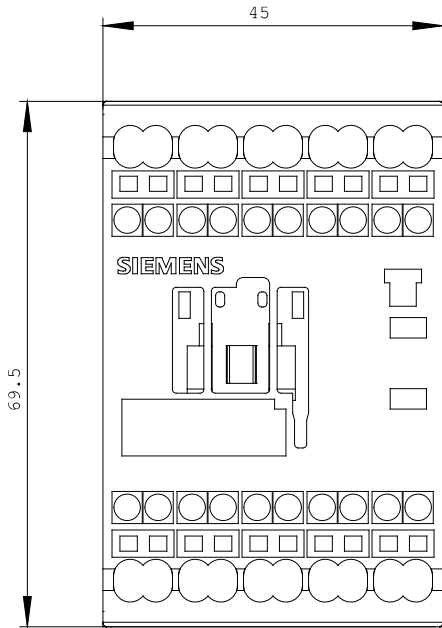
<http://www.siemens.com/cax>

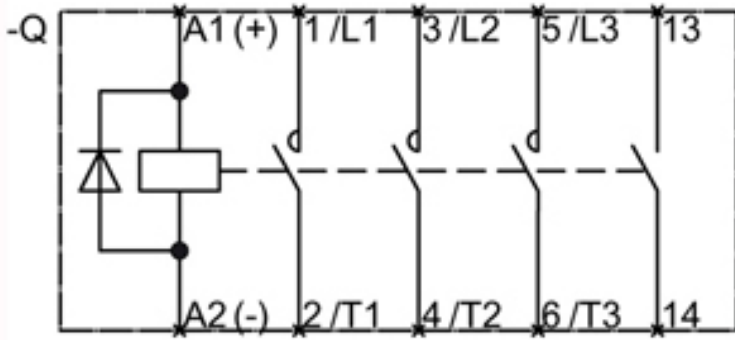
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2016-2FB41-1AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2016-2FB41-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-2FB41-1AA0)





last change:

Feb 15, 2013