



CONTACTOR, AC-3, 18.5KW/400V, 1NO+1NC,  
AC(50-60HZ)/DC ACTUAT. AC/DC 95...130V,  
3-POLE, SZ S0 SCREW TERMINAL

General technical data:		
product brand name		SIRIUS
Size of the contactor		S0
Product extension		
• auxiliary switch		Yes
• function module for communication		No
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
Shock resistance		
• at rectangular impulse		
• at AC		8,3g / 5 ms, 5,3g / 10 ms
• at DC		10g / 5 ms, 7,5g / 10 ms
• at sine pulse		
• at AC		13,5g / 5 ms, 8,3g / 10 ms
• at DC		15g / 5 ms, 10g / 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>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	mm <sup>2</sup>	10
• at 60 °C / minimum permissible	mm <sup>2</sup>	10
<b>Operating current</b>		
• at AC-1 / up to 690 V		
• at 40 °C ambient temperature / rated value	A	50
• at 60 °C ambient temperature / rated value	A	42
• 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 / for ≥ 200000 operating cycles / at AC-4</b>		
• at 400 V / rated value	A	12
• at 690 V / rated value	A	12
<b>Operating 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>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	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>Operating performance</b>		
• at AC-1 / at 230 V / rated value	kW	16
• at AC-1 / at 400 V / rated value	kW	28
• at AC-1 / 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>Operating performance / for <math>\geq 200000</math> operating cycles / at AC-4</b>		

• at 400 V / rated value	kW	6
• at 690 V / rated value	kW	10.3
<b>Thermal short-time current / restricted to 10 s</b>	A	304
<b>Active power loss / at AC-3 / at 400 V / with rated Operating 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>		
• with AC-1 / maximum	1/h	1,000
• with AC-2 / maximum	1/h	750
• with AC-3 / maximum	1/h	750
• with AC-4 / maximum	1/h	250

#### Control circuit/ Control:

<b>Design of the surge suppressor</b>		with varistor
<b>Voltage type / of control feed voltage</b>		AC/DC
<b>Control supply voltage</b>		
• for DC		
• rated value	V	95 ... 130
• at 50 Hz / at AC / rated value	V	110
• at 50 Hz / at AC		
• rated value	V	95 ... 130
• at 60 Hz / at AC / rated value	V	110
• at 60 Hz / at AC		
• rated value	V	95 ... 130
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.7 ... 1.3
• at 60 Hz / for AC		0.7 ... 1.3
• for DC		0.7 ... 1.3
<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	11.9
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	1.6
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.98
• with the pull-in power of the coil		0.61
<b>Pull-in power / of the solenoid / for DC</b>	W	10.2
<b>Holding power / of the solenoid / for DC</b>	W	1.3
<b>Closing delay</b>		
• at AC	ms	50 ... 70
• at DC	ms	50 ... 70

<b>Opening delay</b>		
• at AC	ms	35 ... 45
• at DC	ms	35 ... 45
<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</b>		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V / rated value	A	10
• 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	10
• 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:

<b>yielded mechanical performance [hp]</b>		
<ul style="list-style-type: none"> <li>for single-phase squirrel cage motors <ul style="list-style-type: none"> <li>at 110/120 V / rated value</li> <li>at 230 V / rated value</li> </ul> </li> <li>for three-phase squirrel cage motors <ul style="list-style-type: none"> <li>at 200/208 V / rated value</li> <li>at 220/230 V / rated value</li> <li>at 460/480 V / rated value</li> <li>at 575/600 V / rated value</li> </ul> </li> </ul>	hp	3
	hp	5
	hp	10
	hp	10
	hp	25
	hp	25
<b>Full-load current (FLA) / for 3-phase motor</b>		
<ul style="list-style-type: none"> <li>at 480 V / rated value</li> <li>at 600 V / rated value</li> </ul>	A	34
	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:

<b>mounting position</b>		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Mounting type / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	85
<b>Depth</b>	mm	107
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0

#### Connections/ terminals:

##### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit
- for main contacts / finely stranded / with conductor end processing
- for AWG conductors / for main contacts

screw-type terminals

screw-type terminals

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup>

2x (16 ... 12), 2x (14 ... 8)

- for auxiliary contacts / finely stranded / with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14)

#### Safety related data:

##### 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

##### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

40

%

73

##### Failure rate [FIT] / with low demand rate

- according to SN 31920

FIT

100

##### Product function

- mirror contact to IEC 60947-4-1
- positively driven operation to IEC 60947-5-1

Yes

No

#### Certificates/ approvals:

##### General Product Approval

##### EMC

##### Functional Safety / Safety of Machinery



[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

[Confirmation](#)



VDE

[Environmental Confirmations](#)

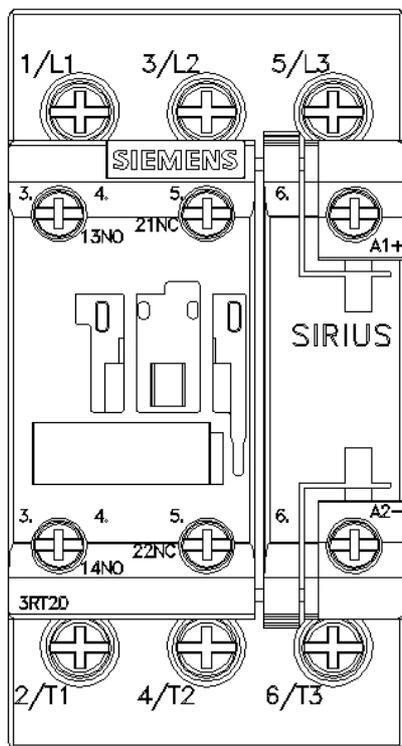
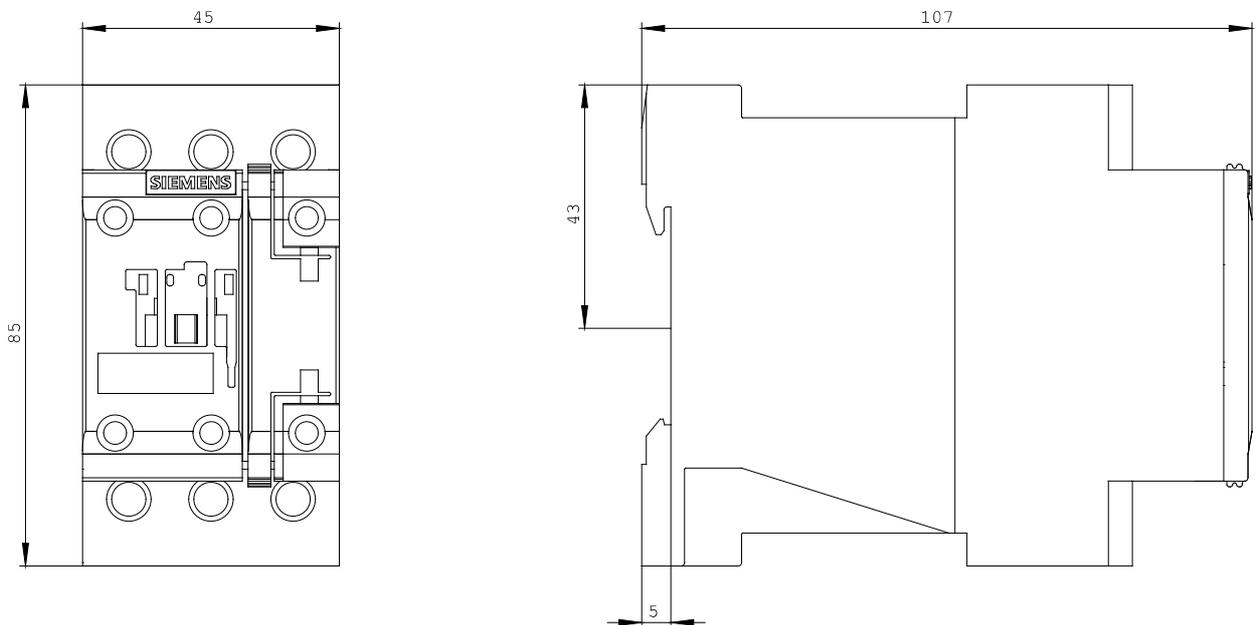
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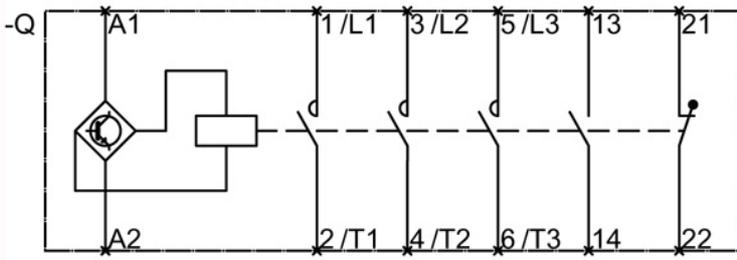
##### Information- and Downloadcenter (Catalogs, Brochures,...)

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

##### Industry Mall (Online ordering system)

<http://mall.industry.siemens.com/>





last change:

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