



CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,
DC 24V, 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 DC		10g / 5 ms, 7,5g / 10 ms
• at sine pulse		
• at DC		15g / 5 ms, 10g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690

Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1	V	400
Mechanical operating cycles as operating time		
• 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	m ²	10
• at 60 °C / minimum permissible	m ²	10
Operating current		
• at AC-1 / up to 690 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
• at AC-2 / at 400 V / rated value	A	17
• at AC-3		
• at 400 V / rated value	A	17
• at 500 V / rated value	A	17
• at 690 V / rated value	A	13
• at AC-4 / at 400 V / rated value	A	15.5
Operational current / for ≥ 200000 operating cycles / at AC-4		
• at 400 V / rated value	A	7.7
• at 690 V / rated value	A	7.7
Operating current		
• 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

<ul style="list-style-type: none"> • with 3 current paths in series / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value 	A	35
	A	35
	A	35
	A	2.9
	A	1.4
Operating current		
<ul style="list-style-type: none"> • with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value • with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value • with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value 	A	20
	A	2.5
	A	1
	A	0.09
	A	0.06
	A	35
	A	15
	A	3
	A	0.27
	A	0.16
	A	35
	A	35
	A	10
	A	0.6
	A	0.6
Operating performance / for ≥ 200000 operating cycles / at AC-4		
<ul style="list-style-type: none"> • at 400 V / rated value • at 690 V / rated value 	kW	3.5
	kW	6
Thermal short-time current / restricted to 10 s		
	A	150
Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor		
	W	0.9
Off-load operating frequency		
<ul style="list-style-type: none"> • at DC 	1/h	1,500
Frequency of operation		
<ul style="list-style-type: none"> • with AC-1 / maximum • with AC-2 / maximum • with AC-3 / maximum • with AC-4 / maximum 	1/h	1,000
	1/h	1,000
	1/h	1,000
	1/h	300

Control circuit/ Control:

Voltage type / of control feed voltage		DC
Control supply voltage • for DC / rated value	V	24
Operating range factor control supply voltage rated value / of the magnet coil • for DC		0.8 ... 1.1
Pull-in power / of the solenoid / for DC	W	5.9
Holding power / of the solenoid / for DC	W	5.9
Closing delay • at DC	ms	50 ... 170
Opening delay • at DC	ms	15 ... 17.5
Arcing time	ms	10 ... 10
Residual current / of electronics / for control with signal <0> • at 230 V / with AC / maximum permissible • at 24 V / with DC / maximum permissible	mA mA	6 16

Auxiliary circuit:

Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts / instantaneous switching		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		1
Operating current • 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
Operating current / at DC-12 • 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
Operating current / at DC-13 • 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	1
hp	3
hp	3
hp	5
hp	10
hp	15

Full-load current (FLA) / for 3-phase motor

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

A	14
A	17

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: 63 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

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

Mounting type

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

Mounting type / series installation

Yes

Width

mm 45

Height

mm 85

Depth

mm 107

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

mm 0

Connections/ terminals:**Design of the electrical connection**

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

screw-type terminals
screw-type terminals

Type of the connectable conductor cross-section

- for main contacts
 - solid or multi-stranded
 - finely stranded / with conductor end processing
- for AWG conductors / for main contacts

2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²)
2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
2x (16 ... 12), 2x (14 ... 8)

Type of the connectable conductor cross-section

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

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:**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

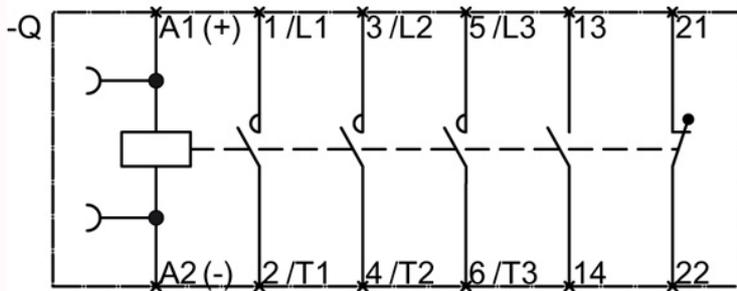
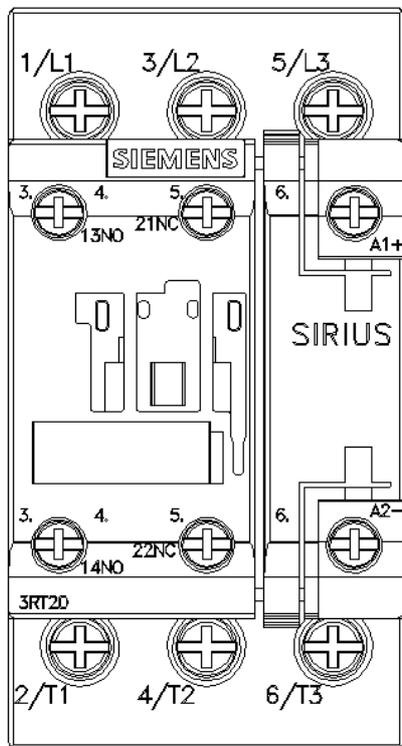
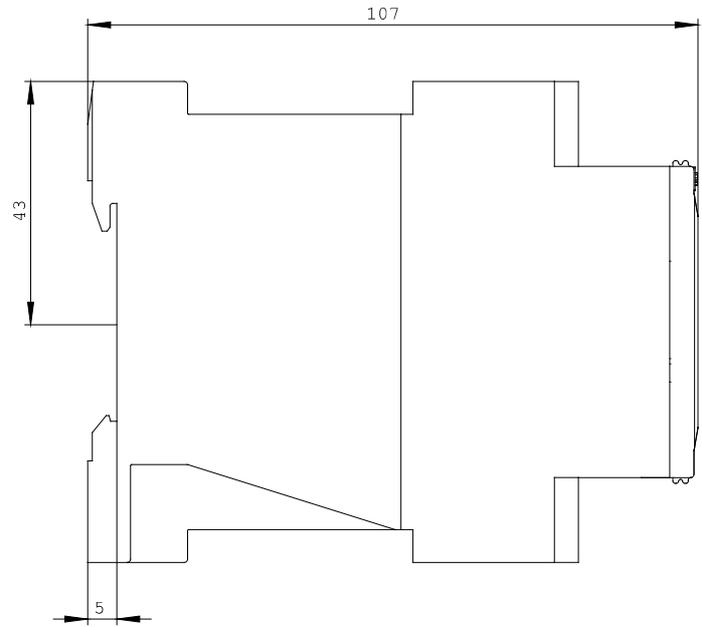
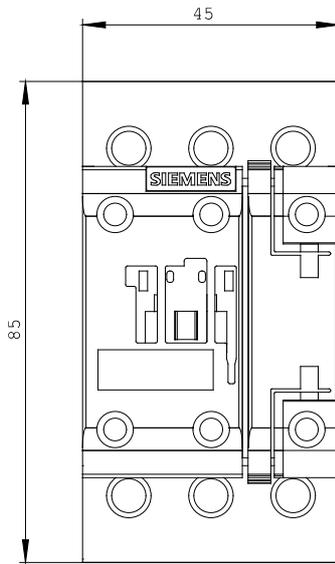
Product function

- 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
 CCC	 CSA		 UL	 C-TICK	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	
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					
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT2025-1BB40/all					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1BB40					



last change:

Aug 13, 2014