

COUPLING RELAY, AC-3,



General technical data:		
product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		No
Product extension / 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 - during operating - note	°C °C	-55 ... +80 -25 ... +60 Railway application: -40 ... 70 °C with 10 mm clearance. See catalog for other rated conditions
Shock resistance - at rectangular impulse - at DC - at sine pulse - at DC		 10g / 5 ms, 7,5g / 10 ms 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
Operating current / at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
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
Operational current		
• at AC-2 / at 400 V / rated value	A	12
• at AC-3		
• at 400 V / rated value	A	12
• at 500 V / rated value	A	12
• at 690 V / rated value	A	9
• at AC-4 / at 400 V / rated value	A	12.5
Operational 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
• 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
Operational current		
• 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
Service power		
• at AC-1		
• at 230 V / rated value	kW	13.3
• at 400 V / rated value	kW	23
• at 500 V / rated value	kW	29
• at 690 V / rated value	kW	40
• at AC-2 / at 400 V / rated value	kW	5.5
• at AC-3		
• at 230 V / rated value	kW	3
• at 400 V / rated value	kW	5.5
• at 690 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	5.5
Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor	W	0.5
Off-load operating frequency		
• at AC	1/h	5,000
• at DC	1/h	1,500

Frequency of operation		
• at AC-1 / according to IEC 60947-6-2	1/h	1,000
• at AC-2 / according to IEC 60947-6-2	1/h	1,000
• at AC-3 / according to IEC 60947-6-2	1/h	1,000
• at AC-4 / according to IEC 60947-6-2	1/h	300

Control circuit:		
Design of the surge suppressor		with varistor
Type of voltage / of the controlled supply 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		0.7 ... 1.25
Pull-in power / of the solenoid / for DC	W	4.5
Holding power / of the solenoid / for DC	W	4.5
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	mA	6
• at 24 V / with DC / maximum permissible	mA	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 / of the auxiliary contacts		
• [nicht versorgt: PMD_ABP551_001_000]		
•	A	2
• at 690 V	A	1

UL/CSA ratings:		
yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1
• at 230 V / rated value	hp	2
• for three-phase squirrel cage motors		

• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	3
• at 460/480 V / rated value	hp	7.5
• at 575/600 V / rated value	hp	10
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	11
• at 600 V / rated value	A	11
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

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 102

Depth

mm 154

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

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

2x (1 ... 10 mm²)

2x (1 ... 6 mm²)

2x (1 ... 6 mm²)

2x (18 ... 8)

2x (0.5 ... 2.5 mm²)

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

2x (0.5 ... 1.5 mm²)

2x (0.5 ... 1.5 mm²)

2x (20 ... 14)

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

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 value) / with low demand rate

- according to SN 31920

FIT

100

Product function

- 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

EMC

Functional Safety /
Safety of Machinery



CCC



CSA



GOST



UL



C-TICK

[Type Examination](#)

Declaration of
Conformity

Test Certificates



EG-Konf.

[Special Test
Certificate](#)

[Type Test
Certificates/Test
Report](#)

Shipping Approval



ABS



BUREAU
VERITAS



DNV



GL



LRS



PRS

Shipping Approval

other



RINA



RMRS

[Confirmation](#)



VDE

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

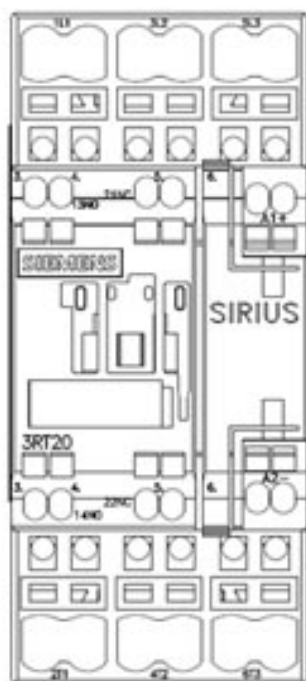
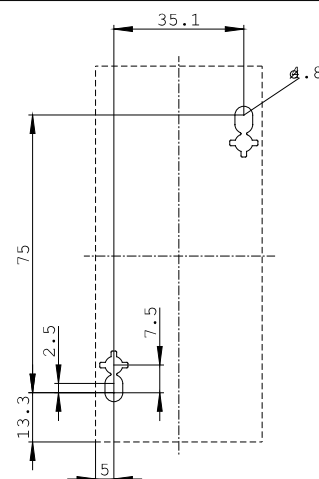
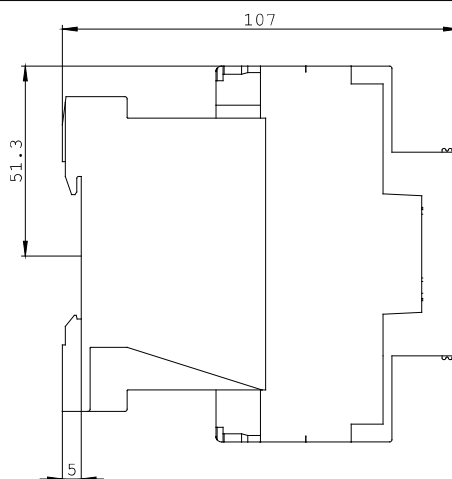
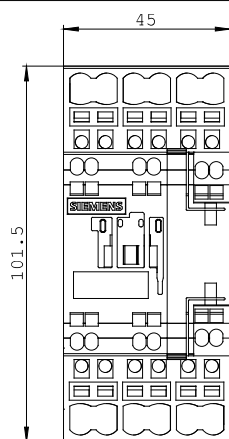
<http://www.siemens.com/cax>

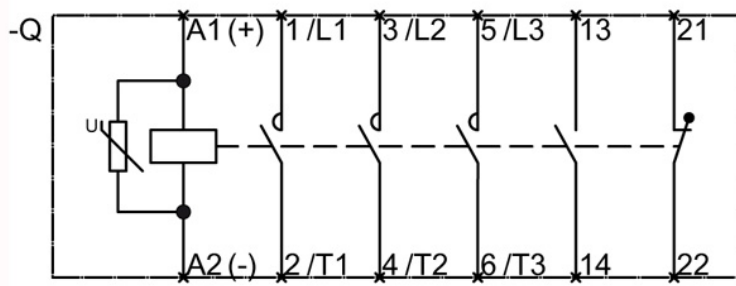
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2024-2KB40/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2024-2KB40





last change:

Feb 15, 2013