



COUPLING RELAY, AC-3, 4KW/400V, 1NC,
DC 12V, 0.7...1.25*US,
W. INTEGR. SUPPRESSORDIODE, SZ S00,
SPRING-LOADED TERMINAL

General technical data:

product brand name		SIRIUS
Size of the contactor		S00
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	°C	-55 ... +80
• during operating	°C	-25 ... +60
• note		Railway application: -40 ... 70 °C with 10 mm clearance. See catalog for other rated conditions
Shock resistance		
• 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
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		30,000,000

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 • at 60 °C ambient temperature / rated value	A A	22 20
Connectable conductor cross-section / in main circuit • at AC-1 • at 40 °C / minimum permissible • at 60 °C / minimum permissible	 m ² m ²	 4 2.5
Operational current • at AC-2 / at 400 V / rated value • at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at AC-4 / at 400 V / rated value	A A A A A	9 9 7.7 6.7 8.5
Operational current • with 1 current path / at DC-1 • 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-1 • 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-1 • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value	 A A A A A A A A A A A A A	 20 2.1 0.8 0.6 0.6 20 12 1.6 0.8 0.7 20 20 20

• at 440 V / rated value	A	1.3
• at 600 V / rated value	A	1
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	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
Service power		
• 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
Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor	W	0.7
Off-load operating frequency		
• at AC	1/h	10,000
• at DC	1/h	10,000
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	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:		
Design of the surge suppressor		with suppressor diode

Type of voltage / of the controlled supply voltage		DC
Control supply voltage • for DC / rated value	V	12
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	2.8
Holding power / of the solenoid / for DC	W	2.8
Closing delay • at DC	ms	30 ... 100
Opening delay • at DC	ms	7 ... 13
Arcing time	ms	10 ... 15
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	3 10

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		0
Operating current / of the auxiliary contacts • [nicht versorgt: PMD_ABP551_001_000] • • at 690 V	A A	2 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 hp hp hp hp hp	0.33 1 2 3 5 7.5
Operating current (FLA) / for three-phase squirrel cage motors • at 480 V / rated value • at 600 V / rated value	A A	7.6 9

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: 35 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A
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	70
Depth	mm	73
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 - finely stranded - with conductor end processing - without conductor final cutting - for AWG conductors / for auxiliary contacts		2x (0.5 ... 4 mm²) 2x (0.5 ... 2.5 mm²) 2x (0.5 ... 2.5 mm²) 2x (20 ... 12) 2x (0.5 ... 4 mm²) 2x (0.5 ... 2.5 mm²) 2x (0.5 ... 2.5 mm²) 2x (20 ... 12)
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	%	40
• with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	100
Product function		
• mirror contact to IEC 60947-4-1		Yes
• positively driven operation to IEC 60947-5-1		No

Certificates/approvals:

General Product Approval



CCC



CSA



GOST



UL

Functional Safety / Safety of Machinery

[Type Examination](#)



EG-Konf.

Test Certificates

[other](#)

[Special Test
Certificate](#)

[Type Test
Certificates/Test
Report](#)

Shipping Approval



ABS



BUREAU
VERITAS



DNV



GL



LRS



PRS

Shipping Approval

other



RINA



RMRS



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

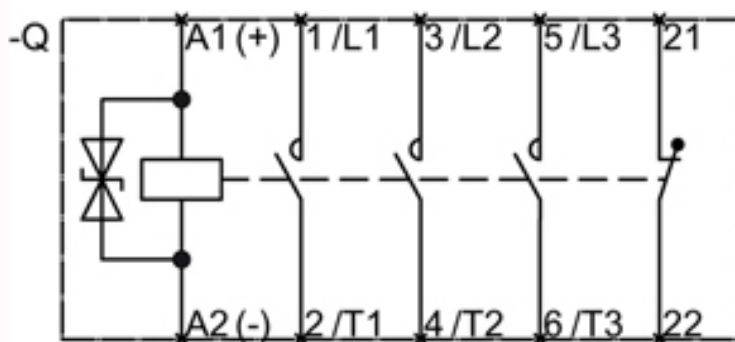
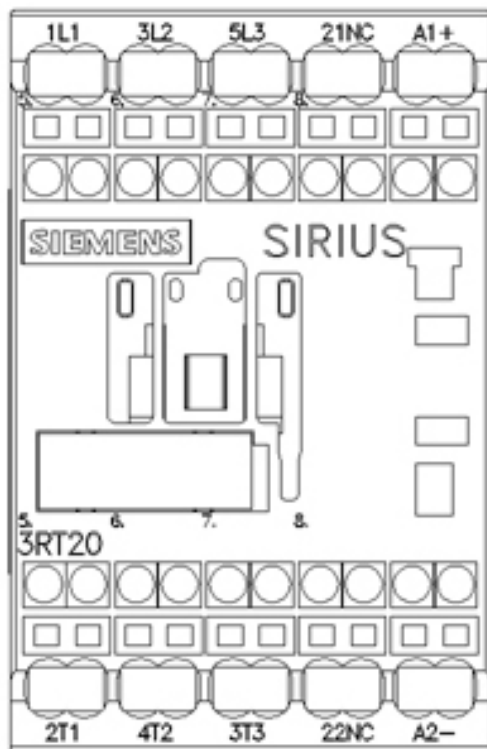
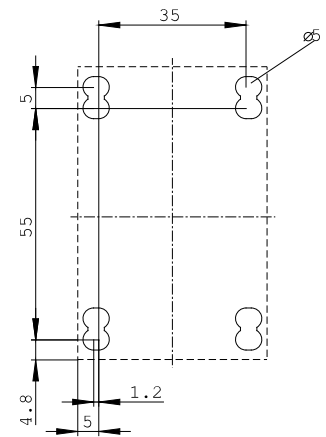
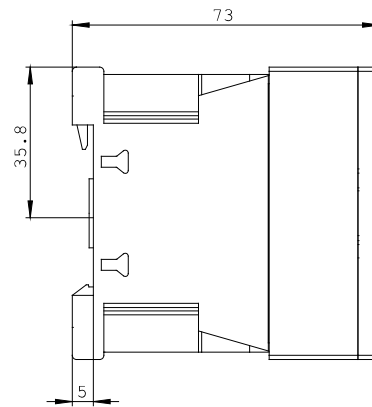
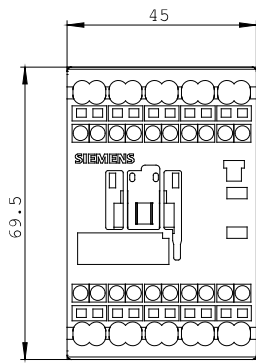
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2016-2KA42/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-2KA42



last change:

Feb 15, 2013