SIEMENS

Industry Automation and Drive Technologies Service & Support

3RT2016-1AB01 SIRIUS NG CONTACTORS S00

CONTACTOR, AC-3, 4KW/400V, 1NO, AC 24V, 50/60 HZ, 3-POLE, SZ S00 SCREW TERMINAL

General technical data:		
Product brand name		SIRIUS
Product designation		3RT2 contactor
Size of the contactor		S00
Protection class IP / frontal/front side		IP20
Degree of pollution		3
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	℃	-55…80
• during the operating phase	℃	-25…60
• during transport	℃	-55…80
Resistance against shock		9.8g / 5 ms and 5.9g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	0.7
Apparent loss power / of the magnet coil / at AC / typical	V·A	4.2
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
Mechanical operating cycles as operating time		
• 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		10,000,000

Main circuit:		
Number of poles / for main current circuit		3
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating voltage / at 3 AC / rated value		
• maximum	V	690
Operating current / at AC-1 / at 400 V		
• at 40 ℃ ambient temperature / rated value	A	22
• at 60 ℃ ambient temperature / rated value	A	20
Operating current		
• at AC-2 / at 400 V / rated value	A	9
• at AC-3 / at 400 V / rated value	A	9
• at AC-4 / at 400 V / rated value	A	8.5
• with 1 current path / at DC-1		
◦ at 24 V / rated value	A	20

• at 110 V / rated value	A	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• 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
Service power		
• at AC-2 / at 400 V / rated value	kW	4
• at AC-3		
• at 400 V / rated value	kW	4
• at 500 V / rated value	kW	4.5
• at 690 V / rated value	kW	5.5
• at AC-4 / at 400 V / rated value	kW	4
Operating reactive power / at AC-6b		
• at 230 V / rated value	var	0
• at 400 V / rated value	var	0
• at 690 V / rated value	var	0
Off-load operating frequency	1/h	10,000
Switching frequency		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	250

Control circuit:		
Design of activation of the operating mechanism		conventional
Type of voltage / of the controlled supply voltage		AC
control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• at 50 Hz / for AC		
• rated value	V	24
• at 60 Hz / for AC		
• rated value	V	24
Operating range factor control supply voltage rated value / of solenoid		
• at 50 Hz / for AC		0.8…1.1
• at 60 Hz / for AC		0.85…1.1

Apparent pull-in power / of the solenoid / for AC	V·A	27
Apparent holding power / of the solenoid / for AC	V·A	4.2
Power factor inductive		
• at pull-in power of the coil		0.8
• at holding power of the coil		0.25

Auxiliary circuit:		
Product extension / auxiliary switch		Yes
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		0
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• instantaneous switching		1
• leading switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	10
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• at 110 V	A	3
• at 220 V	A	1
• at DC-13		
• at 24 V	A	6
• at 48 V	A	2
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3

Short-circuit:		
Design of the fuse link		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• at type of coordination 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
• at type of coordination 2 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

Installation/mounting/dimensions:		
built in orientation		vertical
Type of fixing/fixation		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	57.5
Depth	mm	72
distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	0

distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6
distance, to be maintained, conductive elements		
• forwards	mm	6
• backwards	mm	6
• upwards	mm	6
• downwards	mm	10
• sidewards	mm	6

Connections:

design of the electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
Type of the connectable conductor cross-section		
• for main contacts		
◦ unifilar		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2), 2x 4 mm2
◦ stranded wire		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2), 2x 4 mm2
◦ stranded wire		
▪ with conductor end processing		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)
• at AWG-conductors / for main contacts		2x (20 ... 16), 2x (18 ... 14), 2x 12
• for auxiliary contact		
◦ solid		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2), 2x 4 mm2
◦ stranded wire		
▪ with wire end processing		2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)
• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14), 2x 12

Certificates/approvals:

verification of suitability		CE / UL / CSA / CCC

Safety:

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	%	75
• with high demand rate / according to SN 31920	%	75
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	50
Protection against electrical shock		finger-safe

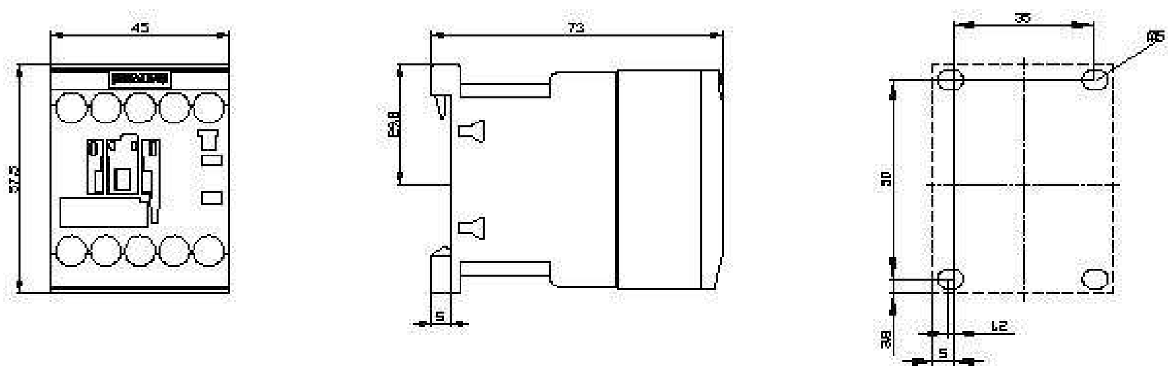
Further information:

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

Global Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RT2016-1AB01/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-1AB01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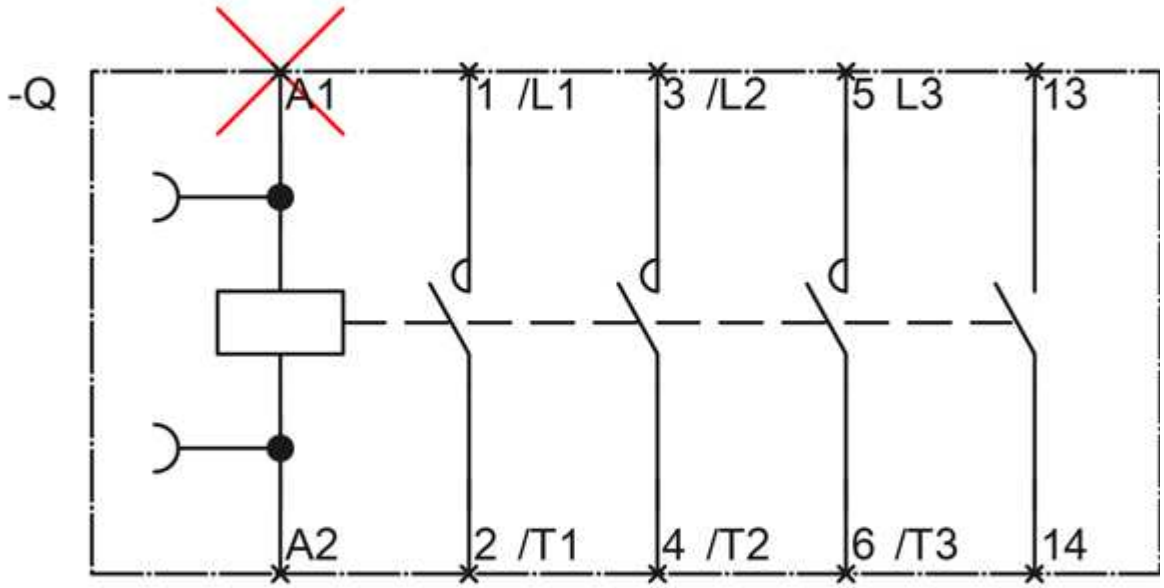

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