SIEMENS

Data sheet

3RT1023-1AN20-1AA0



CONTACTOR, AC-3 5,5 KW/400 V, AC 220V 50/60HZ, 3-POLE, SIZE S0, SCREW CONNECTION, MOUNTING POSITION VERTICAL

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:		
Degree of pollution	3	
Mechanical service life (switching cycles)		
 of the contactor typical 	10 000 000	
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000	
 of the contactor with added auxiliary switch block typical 	10 000 000	
Protection class IP		
• on the front	IP20	
• of the terminal	IP20	
Equipment marking		
• acc. to DIN EN 61346-2	Q	
● acc. to DIN EN 81346-2	Q	

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 current		
● at AC-1		
 — at 400 V at ambient temperature 40 °C Rated value 	Α	40

 up to 690 V at ambient temperature 40 °C Rated value 	Α	40
	Α	35
— up to 690 V at ambient temperature 60 °C Rated value	^	
• at AC-3		
— at 400 V Rated value	Α	9
• at AC-4 at 400 V Rated value	Α	8.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	4.5
• at DC-3 at DC-5		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	2.5
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
• at DC-3 at DC-5		
— at 110 V Rated value	Α	15
— at 24 V Rated value	Α	35
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
• at DC-3 at DC-5		
— at 110 V Rated value	Α	35
— at 24 V Rated value	Α	35
Operating power		
● at AC-1 at 400 V Rated value	kW	23
• at AC-2 at 400 V Rated value	kW	4
• at AC-4 at 400 V Rated value	W	4 000
Operating power		
• 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
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
at 50 Hz Rated value	V	220

at 60 Hz Rated value	V	220
Rated value	Hz	50
Control supply voltage frequency 2 Rated value	Hz	60
Operating range factor control supply voltage rated value of the magnet coil with AC		
● at 50 Hz		0.8 1.1
● at 60 Hz		0.85 1.1
Apparent pick-up power of the magnet coil with AC	V·A	64
Apparent holding power of the magnet coil with AC	V·A	8.4
Inductive power factor		
 with closing power of the coil 		0.72
 with the holding power of the coil 		0.24

Auxiliary circuit:		
Number of NC contacts		
for auxiliary contacts		
instantaneous contact		0
Number of NO contacts		
for auxiliary contacts		
instantaneous contact		0
Operating current at AC-15		
• at 230 V Rated value	Α	6
• at 400 V Rated value	Α	3
Operating current		
• at DC-12 at 220 V Rated value	Α	1
• at DC-13 at 220 V Rated value	Α	0.3
Operating current		
• at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
• at DC-13		
— at 24 V Rated value	Α	10
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)

Snort-circuit:	
Design of the fuse link	
• for short-circuit protection of the main circuit	
 — with type of assignment 1 required 	fuse gL/gG: 63 A
 — with type of assignment 2 required 	fuse gL/gG: 25 A
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A

nstallation/ mounting/ dimensions:		
Mounting type		screw and snap-on mounting onto 35 mm standard
		mounting rail according to DIN EN 50022
Side-by-side mounting		Yes
Height	mm	85
Width	mm	45
Depth	mm	91
Required spacing		
 for grounded parts 		
— at the side	mm	6
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
 for auxiliary and control current circuit 		screw-type terminals
Type of connectable conductor cross-section		
• for main contacts		
— solid		2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 2x 10 mm²
— single or multi-stranded		2x (1 2,5 mm²), 2x (2,5 6 mm²), max. 2x 10 mm²
 finely stranded with core end processing 		2x (1 2.5 mm²), 2x (2.5 6 mm²)
 for AWG conductors for main contacts 		2x (16 12), 2x (14 10), 1x 8
• for auxiliary contacts		
— solid		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x
		(0.75 4 mm²)
 finely stranded with core 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), 1x 12
Mechanical data:		
Size of contactor		S0
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
during operation	°C	-25 + 60

Functional Declaration of General Product Approval Test Safety/Safety Conformity Certificates of Machinery







Type Examination



Type Test Certificates/Test Report

Test	Shipping Approval
Certificates	

Special Test Certificate







 GL





other

Environmental Confirmations

Confirmation

other

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://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10231AN201AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT10231AN201AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10231AN201AA0&lang=en

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