SIEMENS

Data sheet

3RT1016-1BB41



CONTACTOR, AC-3 4 KW/400 V, 1 NO, DC 24 V, 3-POLE, SIZE S00, SCREW CONNECTION

The second se	
product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S00
Degree of pollution	3
Mechanical service life (switching cycles)	
 of the contactor typical 	30 000 000
• of the contactor with added electronics-	5 000 000
compatible auxiliary switch block typical	
 of the contactor with added auxiliary switch 	10 000 000
block typical	
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
Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
 during operation 	-25 +60 °C
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	22 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	22 A
— at ambient temperature 60 °C Rated value	20 A
• at AC-3	
— at 400 V Rated value	9 A
• at AC-4 at 400 V Rated value	8.5 A
Operating current	
 with 1 current path at DC-1 	
— at 24 V Rated value	20 A
— at 110 V Rated value	2.1 A
 with 2 current paths in series at DC-1 	
— at 24 V Rated value	20 A
— at 110 V Rated value	12 A
 with 3 current paths in series at DC-1 	
— at 24 V Rated value	20 A
— at 110 V Rated value	20 A
Operating current	
 with 1 current path at DC-3 at DC-5 	
— at 24 V Rated value	20 A
— at 110 V Rated value	0.15 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 110 V Rated value	0.35 A
— at 24 V Rated value	20 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	20 A
— at 24 V Rated value	20 A
Active power loss at AC-3 at 400 V for rated value of	0.7 W
the operating current per conductor	
Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil for DC	0.85 1.1
Closing power of the magnet coil for DC	3.3 W
Holding power of the magnet coil for DC	3.3 W
Auxiliary circuit:	

Number of NC contacts	
 for auxiliary contacts 	
— instantaneous contact	0
Number of NO contacts	
 for auxiliary contacts 	
— instantaneous contact	1
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	6 A
• at 400 V Rated value	3 A
Operating current at DC-12	
• at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 220 V Rated value	1 A
Operating current at DC-13	
• at 24 V Rated value	10 A
• at 60 V Rated value	2 A
• at 110 V Rated value	1 A
• at 220 V Rated value	0.3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
Short-circuit:	
Design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of assignment 1 required 	fuse gL/gG: 35 A
— with type of assignment 2 required	fuse gL/gG: 20 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
nstallation/ mounting/ dimensions:	
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Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
	according to DIN EN 50022
 Side-by-side mounting 	Yes
Height	57.5 mm
Width	45 mm
Depth	72 mm
Required spacing	
 for grounded parts 	
— at the side	6 mm
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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
— single or multi-stranded	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 main contacts 	2x (20 16), 2x (18 14), 1x 12
Type of connectable conductor cross-section	
 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

General Product	t Approval				Functional Safety/Safet
					of Machinery
	CSA		GAN ® UR	EHC	Type Examination
Declaration of Conformity	Test Certificate	9 5	Shipping App	proval	
EG-Konf.	Special Test Certificate	other	ABS		GL
Shipping Approv	val			other	
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other		NUVO	NWNG		

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=3RT10161BB41

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT10161BB41

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10161BB41&lang=en



