SIEMENS

Product data sheet 3RT2025-2BB44



CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC, DC 24V, 3-POLE, SZ SO SPRING-LOADED TERMINAL REMOVABLE AUX. SWITCH

General technical data:			
Product brand name		SIRIUS	
Size of the contactor		S0	
Product extension / auxiliary switch		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	
Ambient temperature / during operating	°C	-25 60	
Shock resistance			
at rectangular impulse			
• at DC		10g / 5 ms, 7,5g / 10 ms	
at sine pulse			
• at DC		15g / 5 ms, 10g / 10 ms	
Impulse voltage resistance / rated value	kV	6	
Insulation voltage / rated value	V	690	
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	Α	40
• at 60 °C ambient temperature / rated value	Α	35
• at AC-2 / at 400 V / rated value	Α	17
• at AC-3 / at 400 V / rated value	Α	17
• at AC-4 / at 400 V / rated value	Α	15.5
Operating current		
• with 1 current path / at DC-1		
• at 24 V / rated value	Α	35
at 110 V / rated value	Α	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
Service power		
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3 / at 400 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	7.5
Active power loss / per conductor / typical	W	0.9
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 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

Control circuit:		
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
• for DC / rated value	V	24
Working range factor supply voltage rated value / of the magnet coil		
• for DC		0.8 1.1
Pull-in power / of the solenoid / for DC	W	5.9
Holding power / of the solenoid / for DC	W	5.9
Closing delay		
• at DC	ms	50 170
Opening delay		
• at DC	ms	15 17.5
Arcing time	ms	10 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		2
Number of NO contacts / for auxiliary contacts / instantaneous switching		2
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	Α	10
• at AC-15		
• at 230 V	Α	6
• at 400 V	Α	3
• at DC-12		
• at 48 V	Α	6
• at 60 V	Α	6
• at 110 V	Α	3
• at 220 V	Α	1
• at DC-13		
• at 24 V	Α	6
• at 48 V	Α	2
• at 60 V	Α	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			
with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A	
at type of coordination 2 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A	

Installation/mounting/dimensions:			
Built in orientation		vertical	
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 / sidewards	mm	0	
Distance, to be maintained, to earthed part / sidewards	mm	6	

Connections:	
Design of the electrical connection	
for main current circuit	spring-loaded terminals
 for auxiliary and control current circuit 	spring-loaded terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (1 10 mm²)
• stranded	2x (1 10 mm²)
• finely stranded	
 with conductor end processing 	2x (1 6 mm2)
 without conductor final cutting 	2x (1 6 mm2)
• for AWG conductors / for main contacts	1x (18 8)
for auxiliary contacts	
• solid	2x (0.5 2.5 mm2)
• finely stranded	
 with conductor end processing 	2x (0.5 1.5 mm2)
 without conductor final cutting 	2 x (0.5 1.5 mm2)
• for AWG conductors / for auxiliary contacts	2x (20 14)

Certificates/approvals:

General Product Approval











Manufacturer

Shipping Approval













Shipping Approval

other



Manufacturer



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	3
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	5
• at 460/480 V / rated value	hp	10
• at 575/600 V / rated value	hp	15
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	14
• at 600 V / rated value	Α	17
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:related Parameter:			
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	а	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
- positively driven operation to IEC 60947-5-1

Yes	
No	

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:

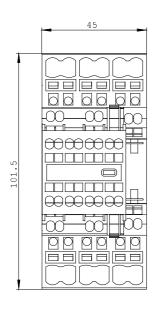
http://www.siemens.com/cax

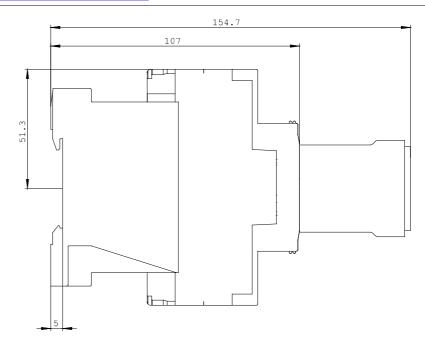
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

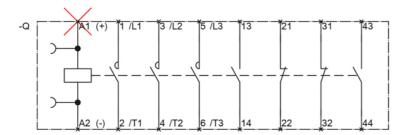
http://support.automation.siemens.com/WW/view/en/3RT2025-2BB44/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-2BB44}}$







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