SIEMENS

Data sheet 3RT2023-1BB40

power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 24 V DC 3-pole, Size S0 screw terminal



Product brand name	SIRIUS
Product designation	Power contactor
Product type designation	3RT2

General technical data		
Size of contactor	S0	
Product extension		
 function module for communication 	No	
Auxiliary switch	Yes	
Power loss [W] for rated value of the current		
 at AC in hot operating state 	1.2 W	
 at AC in hot operating state per pole 	0.4 W	
Power loss [W] for rated value of the current without	5.9 W	
load current share typical		
Surge voltage resistance		
 of main circuit rated value 	6 kV	
 of auxiliary circuit rated value 	6 kV	
maximum permissible voltage for safe isolation		
 between coil and main contacts acc. to EN 	400 V	
60947-1		

Protection class IP	
• on the front	IP20
of the terminal	IP20
Shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 7,5g / 10 ms
Shock resistance with sine pulse	
• at DC	15g / 5 ms, 10g / 10 ms
Mechanical service life (switching cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronics- 	5 000 000
compatible auxiliary switch block typical	
 of the contactor with added auxiliary switch block typical 	10 000 000
Reference code acc. to DIN 40719 extended	К
according to IEC 204-2 acc. to IEC 750	
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
Main circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Operating voltage	
• at AC-3 rated value maximum	690 V
Operating current	
● at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	40 A
● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-2 at 400 V rated value	9 A
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	9 A
— at 690 V rated value	9 A
at AC-4 at 400 V rated value ■	8.5 A
• at AC-5a up to 690 V rated value	35.2 A
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• at AC-5b up to 400 V rated value • at AC-5a — up to 230 V for current peak value n=20 rated value — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 690 V for current peak value n=20 rated value • at AC-6a — up to 230 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — at maximum AC-1 rated value • at maximum AC-1 rated value • at 100 V rated value • at 20 V rated value • at 220 V rated value — at 24 V rated value — at 600 V rated value — at 600 V rated value — at 220 V rated value — at 220 V rated value — at 220 V rated value — at 440 V rated value — at 220 V rated value — at 440 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value		
	at AC-5b up to 400 V rated value	7.4 A
rated value — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 690 V for current peak value n=20 rated value • at AC-Ga — up to 230 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — at 400 V rated value — at 400 V rated value — at 410 V rated value — at 24 V rated value — at 440 V rated valu	● at AC-6a	
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rated value	·	11.4 A
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		9 A
rated value — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value Minimum cross-section in main circuit • at maximum AC-1 rated value Operating current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value — at 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 400 V rated value — at 220 V rated value — at 220 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 AC-6a	
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rated value — up to 690 V for current peak value n=30 rated value Minimum cross-section in main circuit • at maximum AC-1 rated value Operating current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value • with 3 current pathed value — at 110 V rated value • with 2 rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 440 V rated value — at 440 V rated value — at 24 V rated value — at 25 A — at 27 V rated value — at 28 V rated value — at 29 V rated value — at 20 V rated value — at 20 V rated value — at 20 V rated value — at 35 A — at 20 V rated value — at 600 V rated value — at 600 V rated value • with 3 current paths in series at DC-1		7.6 A
rated value Minimum cross-section in main circuit • at maximum AC-1 rated value Operating current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • at 1 current path at DC-1 — at 24 V rated value 35 A — at 110 V rated value 1 A — at 440 V rated value 1 A — at 440 V rated value 1 A — at 600 V rated value • with 2 current paths in series at DC-1 — at 220 V rated value 35 A • with 4 current paths in series at DC-1 — at 24 V rated value 1 A 0.25 A • with 5 current paths in series at DC-1 — at 24 V rated value 35 A — at 110 V rated value 35 A — at 110 V rated value 35 A — at 220 V rated value 36 A — at 440 V rated value 37 A — at 440 V rated value 38 A — at 440 V rated value 39 A — at 440 V rated value 30 A — at 440 V rated value 30 A — at 440 V rated value 30 A		6.1 A
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e at 400 V rated value 4.1 A ■ at 690 V rated value 3.3 A Operating current ■ at 1 current path at DC-1 — at 24 V rated value 35 A — at 110 V rated value 4.5 A — at 220 V rated value 1 A — at 440 V rated value 0.4 A — at 600 V rated value 0.25 A ■ with 2 current paths in series at DC-1 — at 24 V rated value 35 A — at 110 V rated value 5 A — at 220 V rated value 1.4 A — at 600 V rated value 35 A — at 24 V rated value 35 A — at 220 V rated value 35 A — at 220 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 1 A — at 600 V rated value 0.8 A ■ with 3 current paths in series at DC-1	 at maximum AC-1 rated value 	10 mm ²
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Operating current • at 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 35 A — at 110 V rated value 35 A — at 140 V rated value 35 A — at 440 V rated value 35 A — at 220 V rated value 36 A — at 200 V rated value 37 A — at 200 V rated value 38 A — at 200 V rated value 39 A — at 440 V rated value 30 A — at 440 V rated value 40 A — at 600 V rated value 40 A — at 600 V rated value 90 A • with 3 current paths in series at DC-1	• at 400 V rated value	4.1 A
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 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 35 A at 110 V rated value 5 A at 220 V rated value 5 A at 440 V rated value 1 A at 600 V rated value 0.8 A with 3 current paths in series at DC-1 	Operating current	
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 — 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 — at 600 V rated value — with 3 current paths in series at DC-1 	— at 24 V rated value	35 A
 — 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 110 V rated value	4.5 A
 — 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 220 V rated value	1 A
 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 440 V rated value	0.4 A
 — 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 600 V rated value	0.25 A
 — 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 	 with 2 current paths in series at DC-1 	
 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	35 A
 — at 440 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 	— at 110 V rated value	35 A
 — at 600 V rated value • with 3 current paths in series at DC-1 	— at 220 V rated value	5 A
• with 3 current paths in series at DC-1	— at 440 V rated value	1 A
	— at 600 V rated value	0.8 A
— at 24 V rated value 35 A	• with 3 current paths in series at DC-1	
at 21 V Tatod Value	— at 24 V rated value	35 A
— at 110 V rated value 35 A	— at 110 V rated value	35 A
— at 220 V rated value 35 A	— at 220 V rated value	
		35 A