SIEMENS

Data sheet

3RT2047-1AP04

Power contactor, AC-3 110 A, 55 kW / 400 V 2 NO + 2 NC, 230 V AC, 50 Hz 3-pole, 3 NO, Size S3 screw terminal



product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S3
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 	23.7 W
 at AC in hot operating state per pole 	7.9 W
power loss [W] for rated value of the current without load current share typical	19 W
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 60947-1 	690 V

protection class IP				
• on the front	IP20			
• of the terminal	IP00			
shock resistance at rectangular impulse				
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms			
shock resistance with sine pulse				
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms			
mechanical service life (switching cycles)				
 of 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			
reference code 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			
• 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 	1 000 V			
operating current				
• at AC-1 at 400 V				
— at ambient temperature 40 °C rated value	130 A			
● at AC-1				
— up to 690 V at ambient temperature 40 °C rated value	130 A			
— up to 690 V at ambient temperature 60 °C rated value	110 A			
— up to 1000 V at ambient temperature 40 °C rated value	70 A			
— up to 1000 V at ambient temperature 60 °C rated value	60 A			
• at AC-3				
— at 400 V rated value	110 A			
— at 500 V rated value	110 A			
— at 690 V rated value	98 A			
• at AC-4 at 400 V rated value	97 A			

 at AC-5a up to 690 V rated value 	120 A
• at AC-5b up to 400 V rated value	110 A
● at AC-6a	
 — up to 230 V for current peak value n=20 rated value 	98 A
— up to 400 V for current peak value n=20 rated value	98 A
— up to 500 V for current peak value n=20 rated value	98 A
— up to 690 V for current peak value n=20 rated value	98 A
● at AC-6a	
— up to 230 V for current peak value n=30 rated value	65.3 A
— up to 400 V for current peak value n=30 rated value	65.3 A
— up to 500 V for current peak value n=30 rated value	65.3 A
— up to 690 V for current peak value n=30 rated value	65.3 A
minimum cross-section in main circuit	
• at maximum AC-1 rated value	50 mm ²
operating current for approx. 200000 operating	
cycles at AC-4	
	46 A
cycles at AC-4at 400 V rated valueat 690 V rated value	46 A 36 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current	
 cycles at AC-4 at 400 V rated value at 690 V rated value operating current at 1 current path at DC-1 	36 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value	36 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value	36 A 100 A 9 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value	36 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value 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	36 A 100 A 9 A 2 A 0.6 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value 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	36 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 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	36 A 100 A 9 A 2 A 0.6 A 0.4 A
 cycles at AC-4 at 400 V rated value at 690 V rated value 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 at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value 	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value 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 • at 110 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
 cycles at AC-4 at 400 V rated value at 690 V rated value 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 at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value 	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value 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 • at 110 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 220 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 — at 220 V rated value — at 220 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value 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 • 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 24 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 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 — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 220 V rated value — at 440 V rated value — at 240 V rated value — at 200 V rated value — at 200 V rated value — at 200 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
 cycles at AC-4 at 400 V rated value at 690 V rated value 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 24 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value 	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 A 1.8 A 1 A

- at 400 V rated value 20 A operating current at 1 current path at DC-3 at DC-5 - at 24 V rated value 40 A - at 110 V rated value 25 A - at 220 V rated value 0.15 A - at 440 V rated value 0.06 A • with 2 current paths in series at DC-3 at DC-5 - at 24 V rated value 100 A - at 410 V rated value 0.42 A - at 440 V rated value 0.45 A - at 440 V rated value 0.55 KW - at 400 V rated value 55 KW - at 400 V rated value 55 KW - at 400 V rated value 30 kW - at 500 V for current peak value n=20 rated 40 kV - walue 40 kV for current peak value n=20 rated 40 kVA - walue 40 kV for current peak value n=20 rated 40 kVA - walue 500 V for current peak value n=20 rated 40 kVA - walue 500 V for current peak value n=20 rated 40 kVA - w				
operating current • at 1 current path at DC-3 at DC-5 40 A - at 24 V rated value 2.5 A - at 110 V rated value 1.A - at 220 V rated value 0.05 A - at 240 V rated value 0.06 A - at 600 V rated value 0.06 A - at 420 V rated value 100 A - at 410 V rated value 100 A - at 440 V rated value 0.16 A - with 3 current paths in series at DC-3 at DC-5 - - at 420 V rated value 100 A - at 410 V rated value 0.8 A - at 420 V rated value 0.8 A - at 420 V rated value 30 kW - at 430 V rated value 55 kW - at 430 V rated value 25 kW - at 400 V rated value 24 3 kW - at 630 V rated value 30 kW - at 630 V rated value<	— at 440 V rated value	4.5 A		
eat 1 current path at DC-3 at DC-5 eat 24 V rated value 40 A eat 24 V rated value 2.5 A at 20 V rated value 0.66 A eat 240 V rated value 0.06 A eat 240 V rated value 0.07 A eat 240 V rated value 0.08 A eat 220 V rated value 0.08 A eat 220 V rated value 0.16 A eat 220 V rated value 0.16 A eat 220 V rated value 0.16 A eat 240 V rated value 0.16 A 0.16 A eat 240 V rated value 0.16 A 0.16 A eat 240 V rated value 0.16 A	— at 600 V rated value	2.6 A		
	operating current			
 at 110 V rated value 2.5 A at 220 V rated value 1A at 440 V rated value 0.05 A at 600 V rated value 0.06 A with 2 current paths in series at DC-3 at DC-5 at 24 V rated value 100 A at 110 V rated value 100 A at 110 V rated value 100 A at 110 V rated value 100 A at 220 V rated value 0.06 A at 440 V rated value 0.06 A at 440 V rated value 0.06 A at 220 V rated value 0.06 A at 440 V rated value 0.06 A at 220 V rated value 0.06 A at 400 V rated value 0.06 A at 220 V rated value 0.06 A at 400 V rated value 0.06 A at 220 V rated value 0.06 A at 400 V rated value 0.06 A at 400 V rated value 0.06 A at 400 V rated value 0.8 A at 400 V rated value 30 kW at 400 V rated value 55 kW at 400 V rated value 90 kW operating power for approx. 20000 operating cycles at AC-4 at 400 V rated value 2.9 kW operating apparent output at AC-5a at 400 V rated value 39 kV/A at 600 V for current peak value n=20 rated value at b00 V for current peak value n=20 rated value at 400 V for current peak value n=20 rated value at 400 V for current peak value n=20 rated value at 600 V for current peak value n=20 rated value	 at 1 current path at DC-3 at DC-5 			
	— at 24 V rated value	40 A		
Label of the set	— at 110 V rated value	2.5 A		
Lat 600 V rated value0.06 Å• with 2 current paths in series at DC-3 at DC-5100 Å- at 24 V rated value100 Å- at 110 V rated value100 Å- at 220 V rated value0.42 Å- at 440 V rated value0.42 Å- at 600 V rated value100 Å- at 22 V rated value100 Å- at 220 V rated value100 Å- at 220 V rated value100 Å- at 220 V rated value0.8 Å- at 400 V rated value0.8 Å- at 400 V rated value0.8 Å- at 230 V rated value0.8 Å- at 230 V rated value0.8 Å- at 320 V rated value0.8 Å- at 320 V rated value0.8 Å- at 230 V rated value0.8 Å- at 300 V rated value30 kW- at 400 V rated value55 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 690 V rated value90 kW- at 690 V rated value24.3 kW- at 690 V rated value24.3 kW- at 690 V rated value39 kV/A- at 90 V for current peak value n=20 rated39 kV/Avalue- up to 500 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated	— at 220 V rated value	1 A		
 with 2 current paths in series at DC-3 at DC-5 at 24 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 100 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 100 V rated value at 100 V rated value at 220 V rated value at 400 V rated value at 600 V rated value n=20 rated at 600 V for current peak value n=20 rated at 600 V for current peak value n=20	— at 440 V rated value	0.15 A		
 at 24 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 500 V rated value at 500 V rated value by 0 KW at 400 V rated value at 400 V rated value by 0 KW at 400 V rated value by 0 KW by 0 S00 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for current peak value n=20 rated by 10 500 V for	— at 600 V rated value	0.06 A		
- at 110 V rated value 100 A - at 220 V rated value 7 A - at 440 V rated value 0.42 A - at 600 V rated value 0.16 A • with 3 current paths in series at DC-3 at DC-5 - - at 24 V rated value 100 A - at 20 V rated value 35 A - at 400 V rated value 0.8 A - at 400 V rated value 0.8 A - at 600 V rated value 0.8 A - at 230 V rated value 0.8 A - at 400 V rated value 55 kW • at AC-3 - - at 230 V rated value 30 kW - at 400 V rated value 55 kW - at 690 V rated value 90 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 24.3 kW • at 690 V rated value 29. kW operating power for approx. 200000 operating cycles 39 kV-A • up to 230 V for current peak value n=20 rated 37 kV-A value 90 kW 39 kV-A <td> with 2 current paths in series at DC-3 at DC-5 </td> <td></td>	 with 2 current paths in series at DC-3 at DC-5 			
at 220 V rated value7 A- at 220 V rated value0.42 A- at 600 V rated value0.16 A• with 3 current paths in series at DC-3 at DC-5 at 24 V rated value100 A- at 110 V rated value100 A- at 220 V rated value35 A- at 400 V rated value0.8 A- at 600 V rated value0.8 A- at 230 V rated value55 kW- at 400 V rated value55 kW- at 600 V rated value90 kW- at 600 V rated value90 kW- at 600 V rated value22.9 kW- at 600 V rated value32.9 kW- at 600 V rated value32.9 kW- at 600 V rated value n=20 rated37 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated41 kV-A- up to 500 V for current peak value n=20 rated41 kV-A- up to 500 V for current peak value n=20 rated41 kV-A <tr< td=""><td>— at 24 V rated value</td><td>100 A</td></tr<>	— at 24 V rated value	100 A		
 at 440 V rated value at 440 V rated value at 600 V rated value 0.16 A with 3 current paths in series at DC-3 at DC-5 at 24 V rated value 100 A at 110 V rated value 100 A at 220 V rated value 0.8 A at 600 V rated value 0.35 A operating power et AC-2 at 400 V rated value 30 kW at 230 V rated value 30 kW at 400 V rated value 55 kW at AC-3 at 230 V rated value 55 kW at 600 V rated value 55 kW at AC-3 at 230 V rated value 55 kW at 400 V rated value 56 kW at 400 V rated value 57 kW at 400 V rated value 58 kW at 400 V rated value 57 kW at 400 V rated value 90 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 22.9 kW operating apparent output at AC-6a up to 520 V for current peak value n=20 rated value 90 kV-A value up to 500 V for current peak value n=20 rated value 94 kV-A 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 500 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 500 V for current peak value n=20 rated value<td>— at 110 V rated value</td><td>100 A</td>	— at 110 V rated value	100 A		
 at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 400 V rated value at 600 V rated value bt AC-2 at 400 V rated value at AC-3 at 230 V rated value at AC-3 at 230 V rated value at 600 V rated value bt WW at 400 V rated value bt WW at 600 V rated value bt WW at 600 V rated value cat 500 V rated value bt WW cat 690 V rated value cat 400 V rated value bt WW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value bt WW operating apparent output at AC-6a up to 230 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 500 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 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value	— at 220 V rated value	7 A		
 with 3 current paths in series at DC-3 at DC-5 at 24 V rated value at 24 V rated value at 10 V rated value at 22 V rated value at 22 V rated value at 22 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at AC-2 at 400 V rated value at AC-3 at 230 V rated value at 400 V rated value	— at 440 V rated value	0.42 A		
- at 24 V rated value 100 A - at 110 V rated value 100 A - at 220 V rated value 35 A - at 440 V rated value 0.8 A - at 600 V rated value 0.35 A operating power - - at 200 V rated value 55 kW - at 230 V rated value 30 kW - at 230 V rated value 55 kW - at 400 V rated value 55 kW - at 400 V rated value 90 kW - at 600 V rated value 24.3 kW - at 600 V rated value 22.9 kW operating paparent output at AC-8a 39 kV-A - up to 500 V for current peak value n=20 rated 67 kV-A - up to 500 V for current peak value n=20 rated 84 kV-A - up to 690 V for current peak value n=20 rated 84 kV-A	— at 600 V rated value	0.16 A		
 at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value 0.8 A at 600 V rated value 0.8 A at 600 V rated value 55 kW at AC-2 at 400 V rated value 55 kW at AC-3 - at 230 V rated value 30 kW - at 400 V rated value 55 kW - at 400 V rated value 30 kW - at 500 V rated value 90 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 24.3 kW at 690 V rated value 22.9 kW operating apparent output at AC-6a up to 230 V for current peak value n=20 rated value 0 kV-A value up to 500 V for current peak value n=20 rated value 0 for kV-A value up to 690 V for current peak value n=20 rated value 117 kV-A 	• with 3 current paths in series at DC-3 at DC-5			
 at 220 V rated value at 220 V rated value at 440 V rated value 0.8 A at 600 V rated value 0.35 A operating power at AC-2 at 400 V rated value at AC-3 at 230 V rated value 30 kW at 400 V rated value 55 kW at 600 V rated value 90 kW operating power for approx. 200000 operating cycles at 400 V rated value 24.3 kW at 690 V rated value 24.3 kW at 690 V rated value 39 kV-A value up to 230 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated 84 kV-A value value up to 690 V for current peak value n=20 rated 117 kV-A 	— at 24 V rated value	100 A		
- at 40 V rated value0.8 A- at 600 V rated value0.35 Aoperating power55 kW- at AC-2 at 400 V rated value55 kW- at 230 V rated value30 kW- at 230 V rated value55 kW- at 400 V rated value55 kW- at 400 V rated value55 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles24.3 kWat 400 V rated value24.3 kW- at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV-A- up to 230 V for current peak value n=20 rated67 kV-Avalue67 kV-A- up to 500 V for current peak value n=20 rated84 kV-A- up to 690 V for current peak value n=20 rated117 kV-A	— at 110 V rated value	100 A		
at 600 V rated value0.35 Aoperating power	— at 220 V rated value	35 A		
operating power• at AC-2 at 400 V rated value55 kW• at AC-330 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 500 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cyclesat AC-4• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV-A• up to 230 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 690 V for current peak value n=20 rated value84 kV-A	— at 440 V rated value	0.8 A		
• at AC-2 at 400 V rated value55 kW• at AC-330 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 600 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 690 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a value90 kV-A• up to 230 V for current peak value n=20 rated value39 kV-A• up to 400 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 500 V for current peak value n=20 rated value117 kV-A	— at 600 V rated value	0.35 A		
 at AC-3 at AC-3 at AC-4 operating power for approx. 200000 operating cycles at AC-4 at AOU V rated value 24.3 kW at AOU V rated value 32.9 kW operating apparent output at AC-6a 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 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for c	operating power			
- at 230 V rated value30 kW- at 400 V rated value55 kW- at 500 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a value39 kV-A• up to 230 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A	• at AC-2 at 400 V rated value	55 kW		
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at 500 V rated value75 kW at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A	— at 230 V rated value	30 kW		
	— at 400 V rated value	55 kW		
operating power for approx. 200000 operating cycles at AC-4• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A	— at 500 V rated value	75 kW		
at AC-4-• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a-• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 690 V for current peak value n=20 rated value117 kV·A	— at 690 V rated value	90 kW		
• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 690 V for current peak value n=20 rated117 kV·A				
• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value67 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A		24.3 kW		
operating apparent output at AC-6a 39 kV·A • up to 230 V for current peak value n=20 rated value 39 kV·A • up to 400 V for current peak value n=20 rated value 67 kV·A • up to 500 V for current peak value n=20 rated value 84 kV·A • up to 500 V for current peak value n=20 rated value 84 kV·A • up to 690 V for current peak value n=20 rated 117 kV·A		32.9 kW		
 up to 200 V for current peak value n=20 rated up to 400 V for current peak value n=20 rated up to 500 V for current peak value n=20 rated up to 690 V for current peak value n=20 rated 117 kV·A 				
value • up to 500 V for current peak value n=20 rated value 84 kV·A • up to 690 V for current peak value n=20 rated 117 kV·A		39 kV·A		
 • up to 690 V for current peak value n=20 rated • up to 690 V for current peak value n=20 rated 117 kV·A 		67 kV·A		
		84 kV·A		
		117 kV·A		

 up to 230 V for current peak value n=30 rated value 	26 kV·A			
 up to 400 V for current peak value n=30 rated value 	45.2 kV·A			
 up to 500 V for current peak value n=30 rated value 	56.5 kV·A			
 up to 690 V for current peak value n=30 rated value 	78 kV·A			
short-time withstand current in cold operating state				
up to 40 °C				
 limited to 1 s switching at zero current maximum 	1 960 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 5 s switching at zero current maximum 	1 502 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 10 s switching at zero current maximum 	1 095 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 30 s switching at zero current maximum 	707 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 60 s switching at zero current maximum 	562 A; Use minimum cross-section acc. to AC-1 rated value			
no-load switching frequency				
• at AC	5 000 1/h			
operating frequency				
• at AC-1 maximum	900 1/h			
• at AC-2 maximum	350 1/h			
• at AC-3 maximum	850 1/h			
• at AC-4 maximum	200 1/h			
Control circuit/ Control				
type of voltage of the control supply voltage	AC			
control supply voltage at AC				
• at 50 Hz rated value	230 V			
operating range factor control supply voltage rated value of magnet coil at AC				
• at 50 Hz	0.8 1.1			
apparent pick-up power of magnet coil at AC				
• at 50 Hz	296 V·A			
inductive power factor with closing power of the coil				
• at 50 Hz	0.61			
apparent holding power of magnet coil at AC				
● at 50 Hz	19 V·A			
inductive power factor with the holding power of the coil				
● at 50 Hz	0.38			
closing delay				

● at AC	13 50 ms			
opening delay				
• at AC	10 21 ms			
arcing time	10 20 ms			
control version of the switch operating mechanism	Standard A1 - A2			
Auxiliary circuit				
number of NC contacts for auxiliary contacts				
 instantaneous contact 	2			
number of NO contacts for auxiliary contacts				
 instantaneous contact 	2			
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			
• at 500 V rated value	2 A			
• at 690 V rated value	1 A			
operating current at DC-12				
• at 24 V rated value	10 A			
• at 48 V rated value	6 A			
• at 60 V rated value	6 A			
• at 110 V rated value	3 A			
• at 125 V rated value	2 A			
• at 220 V rated value	1 A			
• at 600 V rated value	0.15 A			
operating current at DC-13				
• at 24 V rated value	6 A			
• at 48 V rated value	2 A			
• at 60 V rated value	2 A			
at 110 V rated value	1 A			
at 125 V rated value	0.9 A			
at 220 V rated value	0.3 A			
at 600 V rated value	0.1 A			
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)			
JL/CSA ratings				
full-load current (FLA) for three-phase AC motor				
● at 480 V rated value	96 A			
• at 600 V rated value	99 A			
yielded mechanical performance [hp]				
for single-phase AC motor				
— at 110/120 V rated value	10 hp			
— at 230 V rated value	20 hp			

 for three-phase AC motor 				
— at 200/208 V rated value	30 hp			
— at 220/230 V rated value	40 hp			
— at 460/480 V rated value	75 hp			
— at 575/600 V rated value	100 hp			
contact rating of auxiliary contacts according to UL	A600 / P600			
Short-circuit protection				
design of the fuse link				
 for short-circuit protection of the main circuit 				
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200			
	A (415 V, 80 kA)			
— with type of assignment 2 required	gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A (415V,80kA)			
 for short-circuit protection of the auxiliary switch 	gG: 10 A (500 V, 1 kA)			
required				
Installation/ mounting/ dimensions				
mounting position	+/-180° rotation possible on vertical mounting surface; can be			
	tilted forward and backward by +/- 22.5° on vertical mounting			
	surface			
mounting type	screw and snap-on mounting onto 35 mm standard mounting rail			
	according to DIN EN 60715 Yes			
side-by-side mounting				
height width	140 mm 70 mm			
depth	195 mm			
required spacing	135 1111			
with side-by-side mounting				
— forwards	20 mm			
	10 mm			
— upwards	10 mm			
— downwards	0 mm			
— at the side	0 11111			
• for grounded parts	20 mm			
— forwards	20 mm			
— upwards	10 mm			
— at the side	10 mm			
— downwards	10 mm			
• for live parts				
— forwards	20 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	10 mm			
Connections/ Terminals				

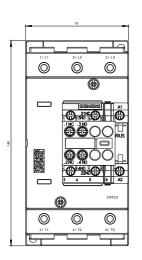
type of electrical connection				
 for main current circuit 	screw-type terminals			
 for auxiliary and control current circuit 	screw-type terminals			
 at contactor for auxiliary contacts 	Screw-type terminals			
• of magnet coil	Screw-type terminals			
type of connectable conductor cross-sections				
 for main contacts 				
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)			
 at AWG conductors for main contacts 	2x (10 1/0), 1x (10 2)			
connectable conductor cross-section for main				
contacts				
• solid	2.5 16 mm²			
• stranded	6 70 mm²			
 finely stranded with core end processing 	2.5 50 mm²			
connectable conductor cross-section for auxiliary				
contacts				
• single or multi-stranded	0.5 2.5 mm ²			
 finely stranded with core end processing 	0.5 2.5 mm²			
• type of connectable conductor cross-sections				
for auxiliary contacts	$2 \times (0.5 - 4.5 - 2 \times 2^{2}) 2 \times (0.75 - 2.5 - 2 \times 2^{2})$			
— single or multi-stranded	2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²)			
 finely stranded with core end processing 	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)			
 type of connectable conductor cross-sections at AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14)			
AWG number as coded connectable conductor cross				
section	40 0			
• for main contacts	10 2			
 for auxiliary contacts 	20 14			
Safety related data				
B10 value				
• with high demand rate acc. to SN 31920	1 000 000			
proportion of dangerous failures				
• with low demand rate acc. to SN 31920	40 %			
• with high demand rate acc. to SN 31920	73 %			
failure rate [FIT]				
• with low demand rate acc. to SN 31920	100 FIT			
product function				
 mirror contact acc. to IEC 60947-4-1 	Yes			
 positively driven operation acc. to IEC 60947-5- 1 	No			
T1 value for proof test interval or service life acc. to IEC 61508	20 у			
protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529			

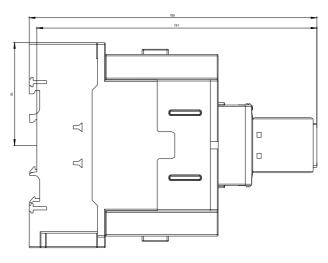
Yes

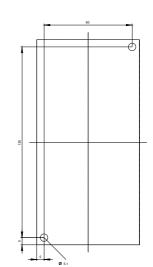
uitability for use safe		g OFF Yes			
ertificates/ approva	als				
General Product	Approval				EMC
	CSA		<u>KC</u>	EHC	RCM
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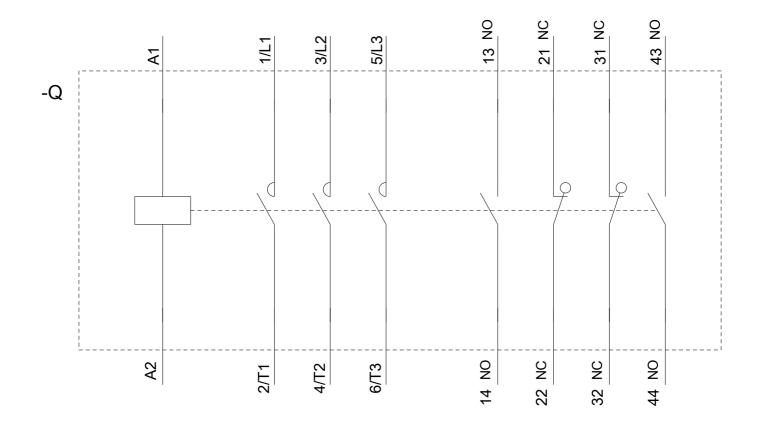
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP04/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AP04&objecttype=14&gridview=view1









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09/24/2020