SIEMENS

Data sheet

3RT2047-1AK64-3MA0

Contactor, AC-3, 55 kW/400 V 2 NO+2 NC, 110 V AC/50 Hz 120 V/60 Hz 3-pole, 3 NO, Size S3 Screw terminal Captive auxiliary switch



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	22 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 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 	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	
• at 400 V rated value	46 A
 cycles at AC-4 at 400 V rated value at 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 20 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 at 24 V rated value 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 at 600 V rated value at 600 V rated value at 24 V rated value at 600 V rated value at 600 V rated value at 10 V rated value at 10 V rated value at 600 V rated value at 10 V rated value at 10 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 • 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 240 V rated value — at 240 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
 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 600 V rated value at 110 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 20 V rated value 	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 A 10 A 1.8 A 1 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 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 240 V rated value — at 600 V rated value — at 600 V rated value — at 240 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 1.8 A 1 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 600 V rated value at 110 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 20 V rated value 	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 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 KW at 600 V rated value 0.8 KW at 600 V rated value 0.8 KW at 600 V rated value 30 kW	 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 400 V rated value55 kW- at 230 V rated value30 kW- at 400 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 690 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 690 V for current peak value n=20 rated44 kV/Avalue- up to 690 V for current peak value n=20 rated44 kV/Avalue- up to 690 V for current peak value n=20 rated <td< td=""><td>— at 220 V rated value</td><td>1 A</td></td<>	— 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 90 kW - at 690 V rated value 90 kW operating power for approx. 200000 operating cycles 32.9 kW operating power for approx. 200000 operating cycles 32.9 kW out to 10 V for current peak value n=20 rated 39 kV-A value 91 kV-A out to 500 V for current peak value n=20 rated 67 kV-A value 67 kV-A	 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
 at 400 V rated value at 400 V rated value at 500 V rated value at 600 V rated value 90 kW operating power for approx. 200000 operating cycles at AC-4 at AC-4 at 400 V rated value 24.3 kW at 690 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 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 117 kV-A 	• at AC-3	
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	110 V				
• at 60 Hz rated value	120 V				
operating range factor control supply voltage rated value of magnet coil at AC					
• at 50 Hz	0.8 1.1				
• at 60 Hz	0.8 1.1				
apparent pick-up power of magnet coil at AC					
• at 50 Hz	326 V·A				
• at 60 Hz	326 V·A				
inductive power factor with closing power of the coil					
• at 50 Hz	0.62				
• at 60 Hz	0.55				
apparent holding power of magnet coil at AC					

22 V·A
22 V·A
0.36
0.4
13 50 ms
10 21 ms
10 20 ms
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)

UL/CSA ratings

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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)				
	gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A				
— with type of assignment 2 required	(415V,80kA)				
— with type of assignment 2 requiredfor short-circuit protection of the auxiliary switch					
	(415V,80kA)				
• for short-circuit protection of the auxiliary switch required	(415V,80kA)				
• for short-circuit protection of the auxiliary switch	(415V,80kA)				
• for short-circuit protection of the auxiliary switch required	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting				
• for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface				
• for short-circuit protection of the auxiliary switch required	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting height	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting height	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm				
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting 	 (415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm 				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting – forwards 	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting forwards upwards 	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm 20 mm 10 mm				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting forwards upwards downwards at the side 	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm 20 mm 10 mm				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting forwards upwards downwards 	 (415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm 20 mm 10 mm 10 mm 				
 for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position mounting type side-by-side mounting height width depth required spacing with side-by-side mounting forwards upwards downwards at the side for grounded parts 	(415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 140 mm 70 mm 195 mm 20 mm 10 mm 0 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 mm ²		
 finely stranded with core end processing 	2.5 50 mm ²		
connectable conductor cross-section for auxiliary			
contacts			
 single or multi-stranded 	0.5 2.5 mm²		
 finely stranded with core end processing 	0.5 2.5 mm ²		
 type of connectable conductor cross-sections for auxiliary contacts 			
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)		
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 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			
• 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
suitability for use safety-related switching OFF	Yes

General Product Approval Image: Colspan="3">KC Image: Colspan="3">KC Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3" Image: Colspan="3">Miscellaneous Image: Colspan="3">Image: Colspan="3" Image: Colspan="3" </th <th>ertificates/ approvals</th> <th></th> <th></th> <th></th> <th></th> <th></th>	ertificates/ approvals					
CCC CCC Declaration of Conformity Marine / Shipping Miscellaneous Miscellaneous Control of Conformity Marine / Shipping	General Product A	pproval				EMC
CE Miscellaneous Register	ccc	CSA		<u>KC</u>	EHC	RCM
CE E	Declaration of Con	formity	Marine / Shippi	ng		
		Miscellaneous	ABS		PRS	RINA
Marine / Shipping other	Marine / Shipping					





Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...) https://www.siemens.com/ic10

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2047-1AK64-3MA0

Cax online generator

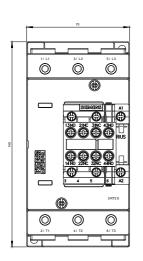
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1AK64-3MA0

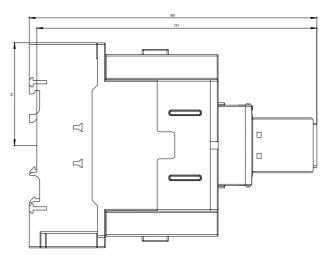
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AK64-3MA0

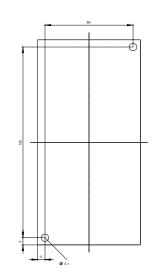
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2047-1AK64-3MA0&lang=en

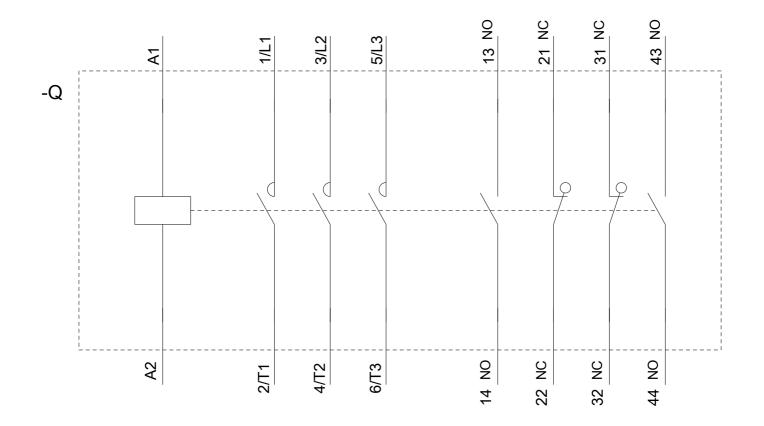
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AK64-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AK64-3MA0&objecttype=14&gridview=view1









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