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
• 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
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 electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.03.2017 00:00:00
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
operational 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 	130 A
rated value — up to 690 V at ambient temperature 60 °C	110 A
rated value — up to 1000 V at ambient temperature 40 °C	70 A
rated value	
— 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 1000 V rated value	30 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• at AC-6a	98 A
 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
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	46 A
at 690 V rated value	36 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
with 2 current paths in series at DC-1	
·	100 A
— at 24 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
— at 440 V rated value	4.5 A
— at 600 V rated value	2.6 A
operational current	
at 1 current path at DC-3 at DC-5	
- at 1 barront path at DO-0 at DO-0	

	-1041/	40.4
	— at 24 V rated value	40 A
with 2 current paths in series at DC-3 at DC-5		
• with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value 100 A — at 110 V rated value 0.42 A — at 1600 V rated value 0.42 A — at 600 V rated value 0.42 A — at 600 V rated value 0.42 A — at 600 V rated value 100 A — at 220 V rated value 100 A — at 220 V rated value 100 A — at 24 V rated value 100 A — at 26 V rated value 100 A — at 27 V rated value 100 A — at 28 V rated value 100 A — at 290 V rated value 100 A — at 400 V rated value 100 A		
		0.06 A
	·	
	— at 110 V rated value	
■ vilh 3 current paths in series at DC-3 at DC-5	— at 220 V rated value	
with 3 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 40 V rated value — at 650 V rated value — at 650 V rated value — at 650 V rated value — at 660 V rated value — at AC-2 at 400 V rated value — at AC-3 value V rated value — at 230 V rated value — at 400 V rated value — at 650 V rated value — at 6		
	— at 600 V rated value	0.16 A
	 with 3 current paths in series at DC-3 at DC-5 	
at 220 V rated value	— at 24 V rated value	
- at 440 V rated value - at 800 V rated value operating power • at AC-2 at 400 V rated value • at AC-3 — at 230 V rated value — at 400 V rated value — at 55 kW - at 500 V rated value — at 1000 V rated value operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value operating apparent power 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=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 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 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 • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching st zero current maximum • limited to 60 switching st zero current maximum • limited to 60 switching st zero current maximum • limited to 60 switc	— at 110 V rated value	100 A
at 1600 V rated value	— at 220 V rated value	35 A
operating power at AC-2 at 400 V rated value at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value 37 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 4 at 890 V rated value 5 kW 3 kW 3 kW operating apparent power at AC-5a 4 up to 230 V for current peak value n=20 rated value 4 up to 400 V for current peak value n=20 rated value 4 up to 690 V for current peak value n=20 rated value 4 up to 690 V for current peak value n=30 rated value 4 up to 400 V for current peak value n=30 rated value 4 up to 400 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 up to 500 V for current peak value n=30 rated value 4 to 650 kV-A 45 kV-A 56 kV-A 78 kV-A 78 kV-A 1 900 A. Use minimum cross-section acc. to AC-1 rated value 1 1 905 A; Use minimum cross-section acc. to AC-1 rated value 1 1 905 A; Use minimum cross-section acc. to AC-1 rated value 1 1 905 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum cross-section acc. to AC-1 rated value 1 1 900 A; Use minimum	— at 440 V rated value	0.8 A
at AC-2 at 400 V rated value at AC-3 — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 1000 V rated value — at 1000 V rated value — at 1000 V rated value operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value at 690 V rated value operating apparent power 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 590 V for current peak value n=20 rated value up to 590 V for current peak value n=20 rated value up to 590 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 590 V for current peak value n=30 rated value up to 590 V for current peak value n=30 rated value up to 590 V for current peak value n=30 rated value in the follow of		0.35 A
at AC-3 at 230 V rated value at 400 V rated value at 690 V rated value at 1000 V rated value at 1000 V rated value at 1000 V rated value 37 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value at 690 V rated value at 67 kV-A at 68 kV-A at 69 kV-A a		
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- at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value 37 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • 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 690 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=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 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 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 40 °C • ilmited to 1 s switching at zero current maximum • ilmited to 5 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 30 s switching at zero current maximum • ilmited to 50 s switching at zero current maximum • ilmited to 50 s switching at zero current maximum • ilmited to 50 s sw	— at 230 V rated value	30 kW
- at 690 V rated value - at 1000 V rated value	— at 400 V rated value	55 kW
operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • 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=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 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current maximum • limited to 50 switching at zero current m	— at 500 V rated value	75 kW
operating power for approx. 200000 operating cycles at AC-4 at 4 400 V rated value at 690 V rated value operating apparent power 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 690 V for current peak value n=30 rated value up to 500 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 short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 50 s switching at zero current maximum limited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum olimited to 60 s switching at zero current maximum	— at 690 V rated value	90 kW
at AC-4 • at 400 V rated value • at 690 V rated value • at 690 V rated value • 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 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=30 rated value • up to 230 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 • 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 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 short-time withstand current in cold operating state up to 40 °C • illimited to 1 s switching at zero current maximum • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero cu		37 kW
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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 poperating apparent power 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 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 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum alimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimited to 60 s switching at zero current maximum slimi		39 kV·A
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up to 690 V for current peak value n=20 rated value operating apparent power at AC-6a up to 230 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 short-time withstand current in cold operating state up to 40 °C ilmited to 1 s switching at zero current maximum ilmited to 5 s switching at zero current maximum ilmited to 10 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 60 s switching at zero current maximum ilmited to 60 s switching at zero current maximum ilmited to 60 s switching frequency at AC	·	84 kV·A
operating apparent power 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 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum		117 kV·A
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 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C ilmited to 1 s switching at zero current maximum ilmited to 5 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 30 s switching at zero current maximum ilmited to 60 s switc		
• up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • lopo 62 A; Use minimum cross-section acc. to AC-1 rated value	up to 230 V for current peak value n=30 rated value	26 kV·A
• up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 10 s switching at zero current maximum • lou 50 AC-1 rated value • 10 S AC-1 rated		45.2 kV·A
• up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 10 s switching at zero current maximum • lou 50 AC-1 rated value • 10 S AC-1 rated	 up to 500 V for current peak value n=30 rated value 	56.5 kV·A
up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC operating frequency • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 ontrol circuit/ Control type of voltage of the control supply voltage control supply voltage at AC • at 50 Hz • at 50 Hz • at 50 Hz 1 960 A; Use minimum cross-section acc. to AC-1 rated value 1 095 A; Use minimum cross-section acc. to AC-1 rated value 562 A; Use minimum cross-section acc. to AC-1 rated value 5		78 kV·A
 limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum looperating frequency at AC at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at AC-5 maximum at AC-4 maximum at AC-4 maximum at AC-5 maximum at AC-4 maximum at AC-5 maximum at AC-4 maximum at AC-5 maximum at AC-5 maximum at AC-6 maximum at AC-7 maximum at AC-8 maximum at AC-9 tooltool at AC-4 maximum at AC-5 maximum at AC-6 maximum at AC-6 maximum at AC-7 maximum at AC-8 maximum at AC-9 tooltool at AC-1 rated value at SO Hz rated value at SO Hz 	short-time withstand current in cold operating state	
 limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum no-load switching frequency at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at 50 Hz rated value at 50 Hz 0.8 1.1 	•	
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum no-load switching frequency at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-5 maximum at AC-6 maximum at AC-7 maximum at AC-8 maximum at AC-9 maximum at AC-9 maximum at AC-1 maximum at AC-2 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-6 maximum at 50 Hz rated value at 50 Hz rated value at 50 Hz at 50 Hz at 50 Hz at 50 Hz 		
 limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum no-load switching frequency at AC at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-5 maximum at AC-6 maximum at AC-7 maximum at AC-8 maximum at AC-9 maximum at AC-1 maximum at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-4 maximum at AC-5 maximum at AC-6 maximum at AC-7 maximum at AC-8 maximum at AC-9 maximum at AC-1 maximum at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-5 maximum at AC-5 maximum at AC-4 maximum	_	•
• limited to 60 s switching at zero current maximum		
no-load switching frequency • at AC operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage type of voltage at AC • at 50 Hz rated value • at 50 Hz • at 50 Hz 0.8 1.1		
 at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-4 maximum 200 1/h Control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value at 50 Hz at 50 Hz at 50 Hz at 50 Hz 		562 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC • at 50 Hz rated value • at 50 Hz • at 50 Hz 0.8 1.1		F 000 4/h
 at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-4 maximum 200 1/h Control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value at 50 Hz at 50 Hz at 50 Hz Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 50 Hz 0.8 1.1		ο UUU 1/N
 at AC-2 maximum at AC-3 maximum at AC-4 maximum 200 1/h Control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value at 50 Hz at 50 Hz at 50 Hz Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 50 Hz 0.8 1.1		000 1/b
 at AC-3 maximum at AC-4 maximum 200 1/h Control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 50 Hz at 50 Hz 		
● at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC ● at 50 Hz rated value ● at 50 Hz ● at 50 Hz ● at 50 Hz ● at 50 Hz ■ at 50 Hz ■ at 50 Hz ■ at 50 Hz ■ at 50 Hz		
type of voltage of the control supply voltage control supply voltage at AC • at 50 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 50 Hz 0.8 1.1		
type of voltage of the control supply voltage control supply voltage at AC • at 50 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz 0.8 1.1		200 1/11
control supply voltage at AC		10
at 50 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 50 Hz at 50 Hz at 50 Hz		AC
operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz 0.8 1.1	,	220 V
value of magnet coil at AC • at 50 Hz 0.8 1.1		200 V
• at 50 Hz 0.8 1.1		
apparent pick-up power of magnet coil at AC	_	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	2
instantaneous contact	
number of NO contacts for auxiliary contacts	2
instantaneous contact	
operational current at AC-12 maximum	10 A
operational 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
operational 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	1A
at 600 V rated value	0.15 A
	0.15 A
operational current at DC-13	0.4
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	
full-load current (FLA) for 3-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 3-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 400/460 V rated value — 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 	~C: 250 A (600 V 400 kA) ~M: 460 A (600 V 400 kA) DC99: 200 A
— with type of coordination i 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 required 	gG: 10 A (500 V, 1 kA)
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
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
side-by-side mounting	Yes
height	140 mm
width	70 mm
depth	195 mm
required spacing	
with side-by-side mounting	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
• for grounded parts	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	00
— forwards	20 mm
— upwards	10 mm
— downwards— at the side	10 mm
— at the side Connections/ Terminals	10 mm
type of electrical connection	across to a a to marinala
for main current circuit for qualifying and control sizesit	screw-type terminals
for auxiliary and control circuit act contactor for auxiliary contactor	screw-type terminals
at contactor for auxiliary contactsof magnet coil	Screw-type terminals Screw-type terminals
type of connectable conductor cross-sections	Sciew-type terminals
• for main contacts	
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
at AWG cables for main contacts	2x (10 1/0), 1x (10 2)
connectable conductor cross-section for main	ZX (10 110), 1X (10 2)
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	0.5 2.52
solid or stranded finely stranded with core and processing	0.5 2.5 mm ²
finely stranded with core end processing tune of connectable conductor cross sections	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts— solid or stranded	2v (0.5
	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing at AWG cables for auxiliary contacts 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross	2^ (20 10), 2^ (10 14)
section	
for main contacts	10 2
 for auxiliary contacts 	20 14
·	20 14
Safety related data	20 14 Yes
·	

 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 positively driven operation acc. to IEC 60947-5-1	No
T1 value for proof test interval or service life acc. to IEC 61508	20 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
 safety-related switching on 	Yes
 safety-related switching OFF 	Yes

Certificates/ approvals

General Product Approval

EMC













Functional
Safety/Safety of
Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate



UK Declaration of Conformity Special Test Certificate





Marine / Shipping

other









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=3RT2047-1AP04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1AP04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP04

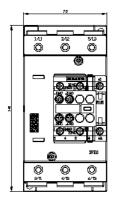
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2047-1AP04&lang=en

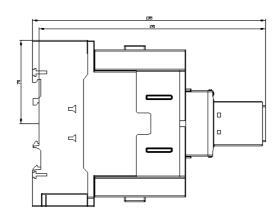
Characteristic: Tripping characteristics, I2t, Let-through current

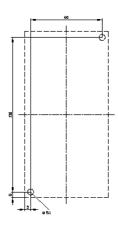
https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP04/char

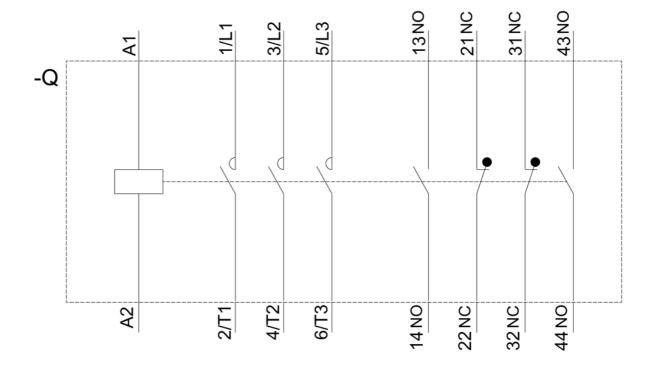
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AP04&objecttype=14&gridview=view1









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