SIEMENS

Data sheet

3RT2047-1AP60



Power contactor, AC-3 110 A, 55 kW / 400 V 1 NO + 1 NC, 220 V AC, 50 Hz 240 V, 60 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	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
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 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 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 	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
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	
— 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

operational current 41 current open all C-3 all C-5 - at 24 V rated value 25 A - at 20 V rated value 1.A - at 20 V rated value 0.6 A - at 40 V rated value 0.06 A - at 400 V rated value 0.06 A - at 20 V rated value	— at 600 V rated value	2.6 A
- af 24 V relat value 40 Å - af 120 V rated value 2.5 Å - af 220 V rated value 0.16 Å - af 320 V rated value 0.06 Å - af 240 V rated value 0.06 Å - af 240 V rated value 0.00 Å - af 240 V rated value 0.00 Å - af 240 V rated value 0.00 Å - af 240 V rated value 0.04 Å - af 240 V rated value 0.06 Å - af 240 V rated value 75 ÅV - af 240 V rated value 20 K Å - af 240 V rated value	operational current	
- al 110 V rited value 2.5 A - al 200 V rited value 0.15 A - al 400 V rited value 0.06 A - al 40 V rited value 0.06 A - al 410 V rited value 0.06 A - al 420 V rited value 0.06 A - al 420 V rited value 0.06 A - al 420 V rited value 0.06 A - al 440 V rited value 0.06 A - al 440 V rited value 0.16 A - al 420 V rited value 0.16 A - al 420 V rited value 0.06 A - al 420 V rited value 0.05 A - al 400 V rited value 0.06 A<	• at 1 current path at DC-3 at DC-5	
	— at 24 V rated value	40 A
	— at 110 V rated value	2.5 A
	— 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 22 V rated value - at 220 V rated value - at 620 V rated value -20 rated value - at 620 V rated value -20 rated value - at 620 V rated value -20 rated value - at 620 V rated value -20 rated value - at 620 V rated value -20 rated value - at 620 V rated value -20 rated value -	— at 440 V rated value	0.15 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 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 200 V rated value at 400 V rated value at 400 V rated value at 600 V rated value n=20 rated value bi b 600 V for current pask value n=20 rated value at 600 V for current pask value n=20 rated value bi b 600 V for current pask value n=30 rated value bi b 600 V for current pask value n=30 rated value bi b 600 V for current pask value n=30 rated value bi b 600 V for current pask value n=30 rated value bi b 600 V for current pask value n=30 rated v	— 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 110 V rated value	100 A
at 600 V rated value0.35 Åoperating power55 kW- at 230 V rated value55 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 400 V rated value90 kW- at 600 V rated value90 kW- at 1000 V rated value90 kW- at 1000 V rated value37 kWoperating power for approx. 200000 operating cycles37 kWat 400 V rated value24.3 kWoperating power for approx. 200000 operating cycles32 kWoperating power for approx. 200000 operating cycles39 kV Aoperating apparent power at AC-6a90 kV A• up to 230 V for current peak value n=20 rated value67 kV-A• up to 230 V for current peak value n=20 rated value68 kV-A• up to 600 V for current peak value n=20 rated value75 kW• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 400 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value56 kV-A• up to 500 V for current peak value n=30 rated value50 kV-A• up to 500 V for current peak value n=30 rate	— at 220 V rated value	35 A
operating power at AC-2 at 4:00 V rated value at AC-3 at 230 V rated value at 400 V rated value bt V rated value at 600 V rated value =20 rated value at 600 V for current peak value n=20 rated value at 600 V for current peak value n=20 rated value at 600 V for current peak value n=20 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value n=30 rated value at 600 V for current peak value met 700 rated value at 600 V fo	— at 440 V rated value	0.8 A
• at AC-2 at 400 V rated value 55 kW • at AC-3 30 kW - at 230 V rated value 30 kW - at 600 V rated value 30 kW - at 600 V rated value 75 kW - at 600 V rated value 90 kW - at 600 V rated value 90 kW - at 600 V rated value 37 kW operating power for approx. 200000 operating cycles at AC-4 • at 600 V rated value 24 3 kW • at 600 V rated value 29 kW operating apparent power at AC-6a 98 kV/A • up to 230 V for current peak value n=20 rated value 67 kV/A • up to 630 V for current peak value n=20 rated value 84 kV/A • up to 630 V for current peak value n=30 rated value 84 kV/A • up to 630 V for current peak value n=30 rated value 78 kV/A • up to 630 V for current peak value n=30 rated value 78 kV/A • up to 630 V for current peak value n=30 rated value 78 kV/A • up to 630 V for current peak value n=30 rated value 78 kV/A • up to 630 V for current peak value n=30 rated value 78 kV/A • up to 630 V for current peak value n=30 rated value 70 K/L use minimum cross-section acc. to AC-1 rated value	— at 600 V rated value	0.35 A
• at AC-3 - at 230 V rated value 30 kW - at 400 V rated value 35 kW - at 630 V rated value 90 kW - at 400 V rated value 90 kW - at 400 V rated value 90 kW - at 400 V rated value 32 kW opperating power for approx. 200000 operating cycles at AC-4 32 kW • at 400 V rated value 22 s kW • at 600 V rated value 32 y kV-A • up to 500 V for current peak value n=20 rated value 67 kV-A • up to 500 V for current peak value n=20 rated value 75 kV-A • up to 500 V for current peak value n=20 rated value 75 kV-A • up to 500 V for current peak value n=30 rated value 26 kV-A • up to 500 V for current peak value n=30 rated value 75 kV-A • up to 500 V for current peak value n=30 rated value 76 kV-A • up to 500 V for current peak value n=30 rated value 76 kV-A • up to 500 V for current peak value n=30 rated value 76 kV-A • up to 500 V for current peak value ne 720 rated	operating power	
	• at AC-2 at 400 V rated value	55 kW
at 400 V rated value55 kW at 600 V rated value75 kW at 600 V rated value90 kW at 1000 V rated value37 kWoperating power for approx. 200000 operating cycles37 kW at 600 V rated value24.3 kW at 600 V rated value22.9 kW at 600 V rated value30 kV·A at 600 V for current peak value n=20 rated value67 kV·A up to 230 V for current peak value n=20 rated value67 kV·A up to 230 V for current peak value n=20 rated value84 kV·A up to 230 V for current peak value n=20 rated value67 kV·A up to 230 V for current peak value n=20 rated value67 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=30 rated value78 kV·A up to 500 V for current peak value n=30 rated value78 kV·A up to 500 V for current peak value n=30 rated value78 kV·A up to 500 V for current peak value n=30 rated value78 kV·A up to 500 V for current peak value n=30 rated value78 kV·A up to 500 V for current peak value n=30 rated value70 k. Use minimum cross-section acc. to AC-1 rated value up to 500 V for current peak value n=30 rated value1960 A: Use minimum cross-section acc. to AC-1 rated value up to 500 V for current peak value n=30 rated value1960 A: Use minimum cross-section acc. to AC-1 rated value up to 500 V for current peak value n=30 rated value1056 A: Use minimum cross-section acc. to AC-1 rated value inimited to 1 s switching at zero	• at AC-3	
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	— at 500 V rated value	75 kW
operating power for approx. 200000 operating cycles at AC-4• at 400 V rated value24.3 kW• at 600 V rated value32.9 kWoperating apparent power 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 690 V for current peak value n=20 rated value117 kV-Aoperating apparent power at AC-6a26 kV-A• up to 500 V for current peak value n=30 rated value26 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 500 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value1960 A; Use minimum cross-section acc. to AC-1 rated value• up to 600 V for1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 50 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum5 000 1/h• at AC-1 maximum900 1/h• at AC-3 maximum900 1/h• at AC-3 maximum900 1/h• at AC-3 maximum850 1/h• at AC-3 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	— at 690 V rated value	90 kW
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• at 690 V rated value32.9 kWoperating apparent power at AC-6a39 kV-A• up to 230 V for current peak value n=20 rated value39 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 500 V for current peak value n=20 rated value117 kV-Aoperating apparent power at AC-6a26 kV-A• up to 230 V for current peak value n=30 rated value26 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 500 V for current peak value n=30 rated value78 kV-A• up to 500 V for current peak value n=30 rated value78 kV-A• up to 500 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value78 kV-A• up to 500 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value70 k kV-A• up to 600 V for current peak value n=30 rated value1960 A; Use minimum cross-section acc. to AC-1 rated value• up to 630 V for current peak value n=30 rated value1960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1960 A; Use minimum cross-section acc. to AC-1 rated value• imited to 10 s switching at zero current maximum1095 A; Use minimum cross-section acc. to AC-1 rated value• imited to 10 s switching at zero current maximum50 00 1/h• at AC-1 maximum900 1/h• at AC-1 maximum900 1/h• at AC-1 maximum900 1/h• at		
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• 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·Aoperating apparent power at AC-6a26 kV·A• up to 230 V for current peak value n=30 rated value26 kV·A• up to 500 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value78 kV·A• up to 690 V for current peak value n=30 rated value78 kV·A• up to 690 V for current peak value n=30 rated value1050 × V·A• up to 690 V for current peak value n=30 rated value78 kV·A• up to 690 V for current peak value n=30 rated value1050 × V·A• up to 690 V for current peak value n=30 rated value78 kV·A• up to 690 V for current peak value n=30 rated value1050 × V·A• up to 690 V for current peak value n=30 rated value78 kV·A• up to 690 V for current peak value n=30 rated value1050 × Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1096 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum50 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h•	• at 690 V rated value	32.9 kW
• 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• operating apparent power at AC-6a0• up to 230 V for current peak value n=30 rated value45.2 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 690 V for current peak value n=30 rated value56.5 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value70 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value70 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• up to 690 V for current peak value n=30 rated value78 kV-A• limited to 1 s witching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s witching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum500 1/h• at AC-1 maximum900 1/h• at AC-1 maximum <td< td=""><td>operating apparent power at AC-6a</td><td></td></td<>	operating apparent power at AC-6a	
• 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·Aoperating apparent power at AC-6a117 kV·A• up to 230 V for current peak value n=30 rated value45 kV·A• up to 500 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value78 kV·Ashort-time withstand current in cold operating state1960 A; Use minimum cross-section acc. to AC-1 rated value1 limited to 1 s switching at zero current maximum1960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum707 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum5000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum350 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	 up to 230 V for current peak value n=20 rated value 	39 kV·A
• up to 690 V for current peak value n=20 rated value117 kV-Aoperating apparent power at AC-6a117 kV-A• up to 230 V for current peak value n=30 rated value26 kV-A• up to 400 V for current peak value n=30 rated value45.2 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 600 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value78 kV-A• up to 600 V for current peak value n=30 rated value1 900 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 906 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum500 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-1 maximum350 1/h• at AC-3 maximum350 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	 up to 400 V for current peak value n=20 rated value 	67 kV·A
operating apparent power at AC-6a26 kV-A• up to 230 V for current peak value n=30 rated value26 kV-A• up to 400 V for current peak value n=30 rated value45.2 kV-A• up to 500 V for current peak value n=30 rated value56.5 kV-A• up to 690 V for current peak value n=30 rated value78 kV-Ashort-time withstand current in cold operating state78 kV-Aup to 40 °C1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 950 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 950 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum50 00 1/h• at AC5 000 1/h• at AC900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum350 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	 up to 500 V for current peak value n=20 rated value 	84 kV·A
• up to 230 V for current peak value n=30 rated value26 kV·A• up to 400 V for current peak value n=30 rated value45.2 kV·A• up to 500 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value78 kV·Ashort-time withstand current in cold operating state up to 40 °C1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/hoperating frequency50 00 1/h• at AC-1 maximum900 1/h• at AC-3 maximum350 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	 up to 690 V for current peak value n=20 rated value 	117 kV·A
• up to 400 V for current peak value n=30 rated value45.2 kV·A• up to 500 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value78 kV·Ashort-time withstand current in cold operating state up to 40 °C78 kV·A• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 995 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum500 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum350 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	operating apparent power at AC-6a	
• up to 500 V for current peak value n=30 rated value56.5 kV·A• up to 690 V for current peak value n=30 rated value78 kV·Ashort-time withstand current in cold operating state up to 40 °C1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum707 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum500 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h	 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 value78 kV·Ashort-time withstand current in cold operating state up to 40 °C78 kV·A• limited to 1 s switching at zero current maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum1 502 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum500 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h		45.2 kV·A
short-time withstand current in cold operating state up to 40 °C1 960 A; Use minimum cross-section acc. to AC-1 rated value limited to 1 s switching at zero current maximumlimited to 10 s switching at zero current maximumlimited to 10 s switching at zero current maximumlimited to 30 s switching at zero current maximumlimited to 60 s switching at zero current maximumfor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A; Use minimum cross-section acc. to AC-1 rated valuefor A, Cfor A, Cfor	 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 maximum1 960 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum1 502 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximumAC	 up to 690 V for current peak value n=30 rated value 	78 kV·A
• limited to 5 s switching at zero current maximum1 502 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum1 095 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum707 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated value• no-load switching frequency5000 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h		
• 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 • 562 A; Use minimum cross-section acc. to AC-1 rated value 562 A; Use minimum cross-section acc. to AC-1 rated value 562 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency • at AC5 000 1/hoperating frequency • at AC-1 maximum900 1/h• at AC-2 maximum • at AC-3 maximum • at AC-4 maximum900 1/h• at AC-4 maximum • at AC-4 maximum200 1/hControl circuit/ ControlAC	 limited to 1 s switching at zero current maximum 	1 960 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum707 A; Use minimum cross-section acc. to AC-1 rated value 562 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency • at AC5000 1/hoperating frequency5000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum • at AC-3 maximum • at AC-4 maximum900 1/h• at AC-4 maximum • at AC-4 moment900 1/h• type of voltage of the control supply voltageAC	 limited to 5 s switching at zero current maximum 	1 502 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum562 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency5 000 1/h• at AC5 000 1/h• at AC-1 maximum900 1/h• at AC-2 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximumAC• at AC-4 model200 1/h• at AC-4 maximum850 1/h• at AC-4 maximum850 1/h• at AC-4 maximum800 1/h• at AC-4 maximumAC	 limited to 10 s switching at zero current maximum 	1 095 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency• at AC5 000 1/hoperating frequency-• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/hControl circuit/ Control-type of voltage of the control supply voltageAC	 limited to 30 s switching at zero current maximum 	707 A; Use minimum cross-section acc. to AC-1 rated value
• at AC5 000 1/hoperating frequency900 1/h• at AC-1 maximum900 1/h• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/h• at AC-4 maximum200 1/h• at AC-4 maximumAC	 limited to 60 s switching at zero current maximum 	562 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency 900 1/h • 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 400 1/h	no-load switching 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 AC	• at AC	5 000 1/h
• at AC-2 maximum350 1/h• at AC-3 maximum850 1/h• at AC-4 maximum200 1/hControl circuit/ Controltype of voltage of the control supply voltageACAC	operating frequency	
• 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	● at AC-1 maximum	900 1/h
• at AC-4 maximum 200 1/h Control circuit/ Control type of voltage of the control supply voltage AC	● at AC-2 maximum	350 1/h
Control circuit/ Control type of voltage of the control supply voltage AC	• at AC-3 maximum	850 1/h
type of voltage of the control supply voltage AC	• at AC-4 maximum	200 1/h
	Control circuit/ Control	
control supply voltage at AC	type of voltage of the control supply voltage	AC
	control supply voltage at AC	

• at 50 Hz rated value	220 V
at 60 Hz rated value	240 V
operating range factor control supply voltage rated	
value of magnet coil at AC • at 50 Hz	0.0 1.1
	0.8 1.1
• at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	200.1/ 4
• 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	
• at 50 Hz	22 V·A
• at 60 Hz	22 V·A
inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
	0.36
• at 60 Hz	0.4
elosing delay • at AC	13 50 ms
opening delay	13 30 ms
• 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	1
instantaneous contact	1
number of NO contacts for auxiliary contacts	1
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	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
 at 24 V rated value 	10 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
	99 A
 at 600 V rated value 	35 A
at 600 V rated value yielded mechanical performance [hp]	33 A

— 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 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 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	152 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 	
— 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 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 cables for main contacts	2x (10 1/0), 1x (10 2)
connectable conductor cross-section for main	
contacts	2.5 16 mm ²
• solid	2.5 16 mm ²
 stranded finally stranded with core and processing 	6 70 mm ²
finely stranded with core end processing	2.5 50 mm ²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm ²
· · · · · · · · · · · · · · · · · · ·	

	with core end processing	g	0.5 2.5 mm²		
type of connectable conductor cross-sections					
 for auxiliary contacts 					
— solid or stranded		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)			
— finely stranded with core end processing		2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²)			
at AWG cables for auxiliary contacts			2x (0.5 1.5 min), 2x (0.75 2.5 min) 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					
product function mi	rror contact acc. to IEC	60947-4-1	Yes		
B10 value with high demand rate acc. to SN 31920			1 000 000		
proportion of dange					
	nd rate acc. to SN 31920		40 %		
	ind rate acc. to SN 31920)	73 %		
-	low demand rate acc. to		100 FIT		
	tively driven operation ac		No		
60947-5-1					
IEC 61508	est interval or service li		20 у		
protection class IP	on the front acc. to IEC	60529	IP20		
touch protection on	the front acc. to IEC 60)529	finger-safe, for vertical conta	ict from the front	
suitability for use					
 safety-related s 	switching on		Yes		
 safety-related s 	switching OFF		Yes		
Certificates/ approval	ls				
General Product Ap					EMC
General Froduct A	opioval				LINO
SP SA			KC	EHC	RCM
Functional Safety/Safety of Machinery	CCC	UL UL	KC Test Certificates	EAC	RCM
Safety/Safety of		Irmity EG-Konf.		Effic <u>Type Test Certific- ates/Test Report</u>	Marine / Shipping
Safety/Safety of Machinery	Declaration of Confo	C€	Test Certificates		KCM Marine / Shipping Output ABS
Safety/Safety of Machinery <u>Type Examination</u> <u>Certificate</u>	Declaration of Confo	C€	Test Certificates		ABS
Safety/Safety of Machinery <u>Type Examination</u> <u>Certificate</u> Marine / Shipping	Declaration of Confo	C€	Test Certificates	ates/Test Report	ABS

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=3RT2047-1AP60 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1AP60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP60

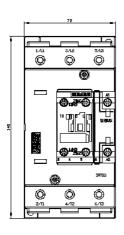
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

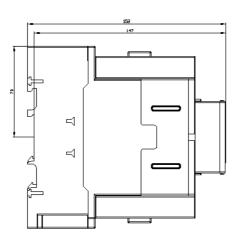
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2047-1AP60&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

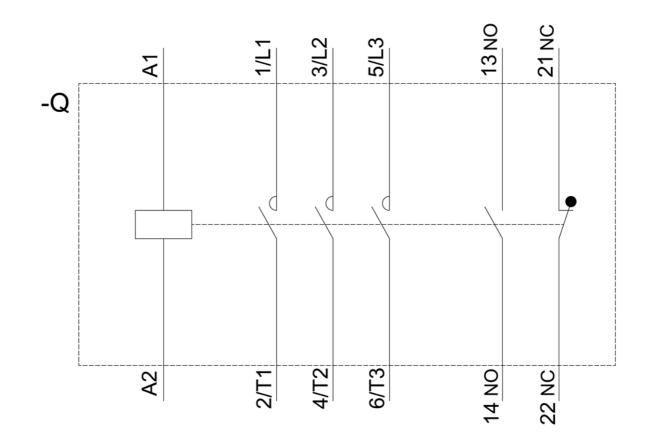
https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP60/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AP60&objecttype=14&gridview=view1









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