SIEMENS

Data sheet 3RT2027-1AP60



Power contactor, AC-3 32 A, 15 kW / 400 V 1 NO + 1 NC, 220 V AC, 50 Hz 240 V, 60Hz, 3-pole, Size S0, screw terminals

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	8.1 W
• per pole	2.7 W
power loss [W] for rated value of the current without load current share typical	10.5 W
surge voltage resistance	
 of main circuit rated value 	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 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)	01.10.2009 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	690 V

operational current ■ at AC-1 at 400 V at ambient temperature 40 °C rated value — up to 800 V at ambient temperature 60 °C rated value — up to 800 V at ambient temperature 60 °C rated value ■ at AC-3 — at 400 V rated value ■ at S00 V rated value ■ at 800 V rated value ■ at 800 V rated value ■ at AC-5 up to 600 V rated value ■ at AC-5 up to 400 V rated value ■ at AC-5 up to 400 V rated value ■ at AC-5 up to 400 V rated value ■ at AC-5 up to 400 V rated value ■ at AC-6 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=30 rated value — up to 500 V for cur		
rated value — up to 800 V at ambient temperature 40 °C rated value — up to 800 V at ambient temperature 60 °C rated value — it AC-3 — at 400 V rated value — at 8500 V rated value — at 6500 V rated value — at 6500 V rated value — at 76.5 up to 400 V rated value — at AC-5 up to 400 V rated value — at AC-5 up to 400 V rated value — at AC-6 up to 400 V rated value — at AC-6 up to 400 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=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current pea	operational current	
■ at AC-1 — up to 590 V at embient temperature 40 °C — rup to 990 V at embient temperature 60 °C — rup to 490 V at embient temperature 60 °C — at AC-3 — at 400 V rated value ■ at AC-3 — at 400 V rated value — at 500 V rated value — at 600 V rated value ■ at AC-4 at 400 V rated value ■ at AC-6 up to 800 V fared value ■ at AC-6 up to 800 V fared value ■ at AC-6 up to 800 V fared value ■ at AC-6 up to 800 V fared value ■ at AC-6 up to 900 V for current peak value n=20 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=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 400 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 400 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — at 600 V rat		50 A
— up to 890 V at ambient temperature 40 °C rated value — up to 890 V at ambient temperature 60 °C rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 600 V rated value — at AC-5a up to 400 V rated value • at AC-5a up to 400 V rated value • at AC-5a up to 400 V rated value • at AC-6a up to 400 V rated value • at AC-6a 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 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 700 V for current peak value n=30 rated value — up to 7		
rated value — up to 800 v1 ambient temperature 60 °C rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 600 V roted value — up 10 230 V for current peak value n=20 rated value — up 10 400 V for current peak value n=20 rated value — up 10 500 V for current peak value n=20 rated value — up 10 500 V for current peak value n=20 rated value — up 10 500 V for current peak value n=30 rated value — up 10 400 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V for current peak value n=30 rated value — up 10 500 V rated value — at 500 V rated valu		
** at AC-3	·	50 A
		42 A
- at 500 V rated value	• at AC-3	
	— at 400 V rated value	32 A
at AC-4 at 400 V rated value at AC-5a up to 690 V rated value at AC-5a up to 690 V rated value at AC-5a — up to 520 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 100 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value	— at 500 V rated value	32 A
at AC-5a up to 690 V rated value at AC-5b up to 400 V rated value n=20 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 690 V for current peak value n=20 rated value — up to 230 V for current peak value n=30 rated value — 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 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 — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — at 440 V rated value — at 240 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value — at 440 V rated value — at 4600 V rated value — at 4600 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 200	— at 690 V rated value	21 A
at AC-5b up to 400 V rated value		22 A
at AC-5b up to 400 V rated value	 at AC-5a up to 690 V rated value 	44 A
at AC-8a — 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=20 rated value • at AC-8a — up to 230 V for current peak value n=30 rated value • at AC-6a — 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 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 — at 440 V rated value — at 220 V rated value — at 690 V rated value — at 220 V rated value — at 600 V rated value — at 440 V rated value — at 600		26.5 A
up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 230 V for current peak value n=30 rated value 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 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value at 400 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 220 V rated value at 440 V rated value		
	— up to 230 V for current peak value n=20 rated	30.8 A
value — up to 690 V for current peak value n=20 rated value — up to 230 V for current peak value n=30 rated value — 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 — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — at 690 V rated value — at 690 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 440 V rated value — at 24 V rated value — at 440 V rated value — at 24 V rated value — at 25 V rated value — at 26 V rated value — at 27 V rated value — at 28 V rated value — at 29 V rated value — at 29 V rated value — at 20 V rated value	·	30.8 A
value	·	27 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 - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=30 rated value minimum cross-section in main circuit at maximum AC-1 rated value minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • at 1 current path at DC-1 - at 24 V rated value - at 110 V rated value - at 440 V rated value - at 110 V rated value - at 110 V rated value - at 1110 V rated value - at 410 V rated value - at 42 V rated value - at 110 V rated value - at 42 V rated value - at 410 V rated value - at 440 V rated value - at 440 V rated value - at 220 V rated value - at 400 V rated value - at 220 V rated value -	value	21 A
value		
value		20.5 A
value 18 A minimum cross-section in main circuit at maximum AC-1 rated value 10 mm² operational current for approx. 200000 operating cycles at AC-4 12 A • at 400 V rated value 12 A • at 690 V rated value 12 A • at 100 V rated value 35 A - at 110 V rated value 4.5 A - at 220 V rated value 0.4 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A • with 2 current paths in series at DC-1 35 A - at 110 V rated value 35 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 24 V rated value 35 A - at 440 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A		
value 10 mm² minimum cross-section in main circuit at maximum AC-1 rated value 10 mm² operational current for approx. 200000 operating cycles at AC-4 12 A e at 400 V rated value 12 A e at 690 V rated value 12 A operational current 41 Current path at DC-1 - at 24 V rated value 35 A - at 110 V rated value 1 A - at 220 V rated value 0.4 A - at 440 V rated value 0.25 A • with 2 current paths in series at DC-1 35 A - at 24 V rated value 35 A - at 210 V rated value 5 A - at 220 V rated value 1 A - at 440 V rated value 1 A - at 600 V rated value 1 A - at 600 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 24 V rated value 35 A - at 24 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 24 V rated value 35 A		18 A
parational current for approx. 200000 operating cycles at AC-4		18 A
cycles at AC-4 at 400 V rated value 12 A at 690 V rated value 12 A operational current at 1 current path at DC-1 35 A — at 24 V rated value 4.5 A — at 220 V rated value 1 A — at 440 V rated value 0.4 A — at 600 V rated value 0.25 A • with 2 current paths in series at DC-1 35 A — at 24 V rated value 35 A — at 220 V rated value 5 A — at 440 V rated value 1 A — at 600 V rated value 0.8 A • with 3 current paths in series at DC-1 35 A — at 24 V rated value 35 A • with 3 current paths in series at DC-1 35 A — at 27 V rated value 35 A • with 0 V rated value 35 A — at 20 V rated value 35 A — at 400 V rated value 35 A — at 400 V rated value 2.9 A — at 600 V rated value 1.4 A operational current 4.4 A	rated value	10 mm²
● at 690 V rated value 12 A operational current ■ at 1 current path at DC-1 — at 24 V rated value 35 A — at 110 V rated value 4.5 A — at 220 V rated value 0.4 A — at 440 V rated value 0.25 A ● with 2 current paths in series at DC-1 35 A — at 24 V rated value 35 A — at 110 V rated value 5 A — at 220 V rated value 1 A — at 440 V rated value 0.8 A ● with 3 current paths in series at DC-1 35 A — at 24 V rated value 35 A — at 110 V rated value 35 A — at 220 V rated value 35 A — at 220 V rated value 35 A — at 440 V rated value 35 A — at 440 V rated value 2.9 A — at 600 V rated value 2.9 A — at 600 V rated value 2.9 A — at 600 V rated value 4.4 A		
● at 1 current path at DC-1 — at 24 V rated value 35 A — at 110 V rated value 4.5 A — at 220 V rated value 1 A — at 440 V rated value 0.4 A — at 600 V rated value 0.25 A • with 2 current paths in series at DC-1		
 at 1 current path at DC-1 — 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 600 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 220 V rated value — at 220 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 440 V rated value — at 24 V rated value — at 24 V rated value — at 22 V rated value — at 40 V rated value — at 24 V rated value — at 25 V rated value — at 26 V rated value — at 27 V rated value — at 28 V rated value — at 29 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 440 V rated value — at 200 V rated value — at 440 V rated value — at 200 V rated value — at 440 V rated value — at 200 V rated value —		12 A
- at 24 V rated value 35 A - at 110 V rated value 4.5 A - at 220 V rated value 1 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A ■ with 2 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 5 A - at 440 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 1 A - at 600 V rated value 35 A - at 220 V rated value 35 A - at 24 V rated value 35 A - at 25 V rated value 35 A - at 20 V rated value 35 A - at 20 V rated value 35 A - at 440 V rated value 35 A - at 20 V rated value 35 A - at 440 V rated value 35 A - at 440 V rated value 2.9 A - at 600 V rated value 1.4 A operational current ■ at 1 current path at DC-3 at DC-5	•	
- at 110 V rated value 4.5 A - at 220 V rated value 1 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A ● with 2 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 5 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A ● with 3 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 35 A - at 110 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 440 V rated value 2.9 A - at 600 V rated value 2.9 A - at 600 V rated value 1.4 A operational current ● at 1 current path at DC-3 at DC-5		
- at 220 V rated value - at 440 V rated value 0.4 A 0.25 A ● with 2 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 440 V rated value 35 A - at 100 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 110 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 440 V rated value 36 A - at 440 V rated value 37 A - at 440 V rated value 38 A - at 220 V rated value 39 A - at 600 V rated value 30 A		
- at 440 V rated value 0.4 A - at 600 V rated value 0.25 A ● with 2 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A ● with 3 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 200 V rated value 35 A - at 200 V rated value 35 A - at 440 V rated value 2.9 A - at 600 V rated value 1.4 A Operational current ● at 1 current path at DC-3 at DC-5		
 — at 600 V rated value ● with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — with 3 current paths in series at DC-1 — at 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 400 V rated value — at 600 V rated value — at 600 V rated value — at 1.4 A Operational current • at 1 current path at DC-3 at DC-5 		
 with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — with 3 current paths in series at DC-1 — at 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 600 V rated value — at 1 current path at DC-3 at DC-5 		
- at 24 V rated value 35 A - at 110 V rated value 5 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A ■ with 3 current paths in series at DC-1 - at 24 V rated value 35 A - at 110 V rated value 35 A - at 110 V rated value 35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 440 V rated value 35 A - at 600 V rated value 1.4 A operational current ■ at 1 current path at DC-3 at DC-5		0.25 A
 — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — with 3 current paths in series at DC-1 — at 24 V rated value — at 110 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 1.4 A Operational current • at 1 current path at DC-3 at DC-5 		
 — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 400 V rated value — at 600 V rated value — at 600 V rated value — at 1 current path at DC-3 at DC-5 		
 — at 440 V rated value — at 600 V rated value ● with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 1.4 A Operational current ● at 1 current path at DC-3 at DC-5 		
 — at 600 V rated value ● with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 100 V rated value — at 1 current path at DC-3 at DC-5 		
with 3 current paths in series at DC-1 — at 24 V rated value		
— at 24 V rated value 35 A — at 110 V rated value 35 A — at 220 V rated value 35 A — at 440 V rated value 2.9 A — at 600 V rated value 1.4 A operational current • at 1 current path at DC-3 at DC-5		0.8 A
— at 110 V rated value 35 A — at 220 V rated value 35 A — at 440 V rated value 2.9 A — at 600 V rated value 1.4 A operational current • at 1 current path at DC-3 at DC-5		
— at 220 V rated value 35 A — at 440 V rated value 2.9 A — at 600 V rated value 1.4 A operational current • at 1 current path at DC-3 at DC-5		
— at 440 V rated value2.9 A— at 600 V rated value1.4 Aoperational current• at 1 current path at DC-3 at DC-5		
— at 600 V rated value 1.4 A operational current		
• at 1 current path at DC-3 at DC-5		
• at 1 current path at DC-3 at DC-5		1.4 A
— at 24 V rated value 20 A		
	— at 24 V rated value	20 A

— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 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	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 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	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
operating power for approx. 200000 operating cycles	10.0 KVV
at AC-4	
 at 400 V rated value 	6 kW
at 690 V rated value	10.3 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	12.2 kV·A
 up to 400 V for current peak value n=20 rated value 	21.3 kV·A
 up to 500 V for current peak value n=20 rated value 	23.3 kV·A
 up to 690 V for current peak value n=20 rated value 	25 kV·A
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	8.1 kV·A
 up to 400 V for current peak value n=30 rated value 	14.2 kV·A
 up to 500 V for current peak value n=30 rated value 	15.5 kV·A
• up to 690 V for current peak value n=30 rated value	21.5 kV·A
short-time withstand current in cold operating state	
up to 40 °C	
 limited to 1 s switching at zero current maximum 	499 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	395 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	260 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	186 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	152 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	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	2001
• 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	0.8 1.1
• at 60 Hz	0.8 1.1

apparent pick-up power of magnet coil at AC				
● at 50 Hz	81 V·A			
● at 60 Hz	79 V·A			
inductive power factor with closing power of the coil				
● at 50 Hz	0.72			
● at 60 Hz	0.74			
apparent holding power of magnet coil at AC				
● at 50 Hz	10.5 V·A			
● at 60 Hz	8.5 V·A			
inductive power factor with the holding power of the coil				
● at 50 Hz	0.25			
● at 60 Hz	0.28			
closing delay				
• at AC	8 40 ms			
opening delay				
• at AC	4 16 ms			
arcing time	10 10 ms			
control version of the switch operating mechanism	Standard A1 - A2			
Auxiliary circuit				
number of NC contacts for auxiliary contacts instantaneous contact	1			
number of NO contacts for auxiliary contacts instantaneous contact	1			
operational current at AC-12 maximum	10 A			
operational current at AC-15				
 at 230 V rated value 	10 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	27 A			
at 600 V rated value	27 A			
yielded mechanical performance [hp]				
• for single-phase AC motor				
— at 110/120 V rated value	2 hp			
— at 230 V rated value	5 hp			
• for 3-phase AC motor				
— at 200/208 V rated value	10 hp			
	10.1			
— at 220/230 V rated value— at 460/480 V rated value	10 hp 20 hp			

— at 575/600 V rated value	25 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: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)			
— with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V,			
 for short-circuit protection of the auxiliary switch required 	80kA) gG: 10 A (500 V, 1 kA)			
nstallation/ 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	85 mm			
width	45 mm			
depth	97 mm			
required spacing	Vi illiff			
with side-by-side mountingforwards	10 mm			
	10 mm			
— upwards — downwards	10 mm			
— at the side	0 mm			
• for grounded parts				
— forwards	10 mm			
— upwards	10 mm			
— at the side	6 mm			
— downwards	10 mm			
 for live parts 				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	6 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				
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
— solid or stranded	2x (1 2,5 mm²), 2x (2,5 10 mm²)			
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²			
 finely stranded with core end processing at AWG cables for main contacts 				
	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)			
at AWG cables for main contacts				
at AWG cables for main contacts connectable conductor cross-section for main				
at AWG cables for main contacts connectable conductor cross-section for main contacts	2x (16 12), 2x (14 8)			
at AWG cables for main contacts connectable conductor cross-section for main contacts solid	2x (16 12), 2x (14 8) 1 10 mm ²			
 at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded 	2x (16 12), 2x (14 8) 1 10 mm ² 1 10 mm ²			
at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary	2x (16 12), 2x (14 8) 1 10 mm ² 1 10 mm ²			
at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts	2x (16 12), 2x (14 8) 1 10 mm ² 1 10 mm ² 1 10 mm ²			
at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded	2x (16 12), 2x (14 8) 1 10 mm ² 1 10 mm ² 1 10 mm ²			
at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing	2x (16 12), 2x (14 8) 1 10 mm ² 1 10 mm ² 1 10 mm ²			

 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 at AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)		
AWG number as coded connectable conductor cross section			
 for main contacts 	16 8		
 for auxiliary contacts 	20 14		
Safety related data			
product function mirror contact acc. to IEC 60947-4-1	Yes		
B10 value with high demand rate acc. to SN 31920	450 000		
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		
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 OFF 	Yes		
Certificates/ approvals			
General Product Approval		EMC	







<u>KC</u>





Functional Safety/Safety of Machinery	Declaration of Conformity		Test Certificates		Marine / Shipping
Type Examination Certificate	UK Declaration of Conformity	€ EG-Konf.	Special Test Certificate	Type Test Certificates/Test Report	ABS

Marine / Shipping other











Confirmation

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=3RT2027-1AP60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1AP60

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

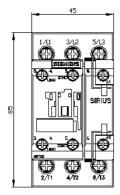
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1AP60

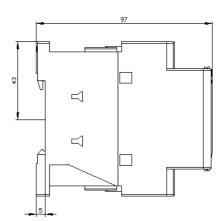
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2027-1AP60&lang=en

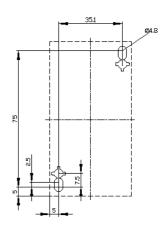
Characteristic: Tripping characteristics, I2t, Let-through current

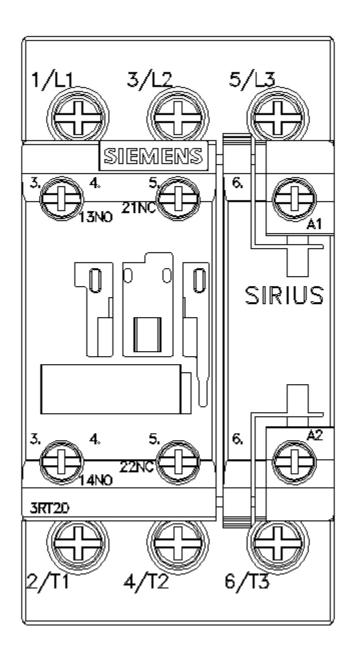
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1AP60/char

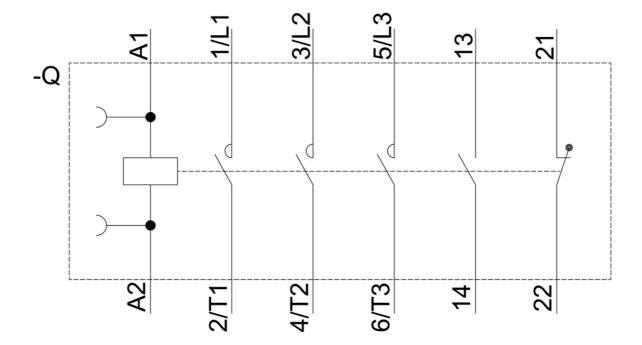
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2027-1AP60&objecttype=14&gridview=view1











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