SIEMENS

Data sheet 3RT2038-1AD04



Power contactor, AC-3 80 A, 37 kW / 400 V 2 NO + 2 NC, 42 V AC, 50 Hz 3-pole, size S2 screw terminals

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
product extension	
 function module for communication 	No
auxiliary switch	No
power loss [W] for rated value of the current at AC in hot operating state	17.1 W
• per pole	5.7 W
power loss [W] for rated value of the current without load current share typical	16 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	9.8g / 5 ms, 6.5g / 10 ms
shock resistance with sine pulse	
• at AC	15.3g / 5 ms, 10.1g / 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)	01.10.2014 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature during operation	-25 +60 °C
ambient temperature 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 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 40 °C rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value • at AC-4 at 400 V rated value • at AC-5 up to 690 V rated value • at AC-5 up to 690 V rated value • at AC-5 up to 690 V rated value • at AC-5 up to 690 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 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=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 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 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 55 A • at 55 A • at 55 A		
rated value — up to 800 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 AC-3 — at 400 V rated value — at 500 V rated value • at AC-5a up to 600 V rated value • at AC-5a up to 600 V rated value • at AC-6a up to 600 V fact or 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=20 rated value — up to 500 V for current peak value n=30 r	operational current	
** at AC-1		90 A
— up to 800 V at ambient temperature 40 °C rated value — up to 800 V at ambient temperature 60 °C rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 600 V rated value — at 400 V rated value — at 40.5a up to 600 V rated value — at 40.5b up to 400 V rated value — at 40.5b up to 400 V rated value — at 40.5b up to 400 V rated value — at 40.5b up to 400 V rated value — at 40.5b up to 400 V rated value — at 40.5b up to 400 V 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 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 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 880 v at ambient temperature 60 °C rated value — at 400 V rated value — at 500 V rated value — at 400 V rated value — at 400 by to 400 V rated value — at 40.58 up to 690 V rated value — at 40.59 up to 690 V rated value — at 40.59 up to 400 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 500 V for current peak value n=20 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — up to 800 V for current peak value n=30 rated value — at 400 V rated value — at 55 A — at 220 V rated value — at 600 V rate		
rated value - at 400 V rated value - at 690 V rated value - at 600 V rated value - at AC-3 at 400 V rated value - at AC-3 but p to 590 V rated value - at AC-3 but p to 590 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 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 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 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 - at 400 V rated value		90 A
— at 400 V rated value — at 500 V rated value — at 600 V rated value		80 A
— at 400 V rated value — at 500 V rated value — at 600 V rated value	• at AC-3	
- at 500 V rated value		80 A
■ at AC-4 at 400 V rated value ■ at AC-3 at y 10 690 V rated value ■ at AC-5 but p to 400 V rated value ■ at AC-5 but p 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 690 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 — 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 4800 V rated value — at 240 V rated value — at 4800 V rated value — at 480 V r		
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-8a — 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 690 V for current peak value n=20 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 — 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 400 V rated value — at 600 V rated value — at 200 V rated		
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al AC-5b up to 400 V rated value al AC-6a — up to 230 V for current peak value n=20 rated value — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 600 V for current peak value n=20 rated value — up to 230 V for current peak value n=20 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 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 400 V rated value n=30 rated value — at 400 V rated value — at 400 V rated value — at 110 V rated value — at 24 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 110 V rated value — at 200 V rated value — at 44 V rated value — at 44 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 44 V rated value — at 24 V rated value — at 25 A with 3 current paths in series at DC-1 — at 24 V rated value — at 25 A with 3 current paths in series at DC-1 —		
• at AC-6a		
		00.4 A
- 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 590 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 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 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 - operational current for approx. 200000 operating cycles at AC-4	— up to 230 V for current peak value n=20 rated	70 A
value	— up to 400 V for current peak value n=20 rated	70 A
value		70 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 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 operational current for approx. 200000 operating cycles at AC-4 at 400 V rated value at 400 V rated value at 1 current path at DC-1 at 24 V rated value at 220 V rated value at 400 V rated value at 400 V rated value at 400 V rated value at 600 V rated value at 600 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 220 V rated value at 600 V rated value at 220 V rated value at 440 V rated value at 220 V rated value at 440 V rated value at 220 V rated value at 22		58 A
value — up to 400 V for current peak value n=30 rated value 46.7 A — up to 500 V for current peak value n=30 rated value 46.7 A — up to 690 V for current peak value n=30 rated value 46.7 A — up to 690 V for current peak value n=30 rated value 46.7 A — up to 690 V for current peak value n=30 rated value 46.7 A — observational current for approx. 200000 operating cycles at AC-4 — at 400 V rated value — at 400 V rated value 30 A — at 10 U rated value 24 A — at 24 V rated value 45 A — at 110 V rated value 4.5 A — at 20 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 — at 220 V rated value 55 A — at 110 V rated value 5 A — at 440 V rated value 5 A — at 220 V rated value 5 A — at 440 V rated value 0	• at AC-6a	
value		46.7 A
value — up to 690 V for current peak value n=30 rated value 46.7 A minimum cross-section in main circuit at maximum AC-1 rated value 35 mm² operational current for approx. 200000 operating cycles at AC-4 at 400 V rated value 30 A • at 690 V rated value 24 A operational current • at 1 current path at DC-1 — at 24 V rated value 55 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 55 A — at 110 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 5 A — at 440 V rated value 4 S A — at 220 V rated value 5 S A — at 440 V rated value 4 S A — at 220 V rated value 55 A — at 440 V rated value 4 S A — at 220 V rated value 2.9 A — at 440 V		46.7 A
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 600 V rated value ■ with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value ■ with 3 current paths in series at DC-1 — at 24 V rated value — at 440 V rated value — at 110 V rated value — at 220 V rated value — at 24 V rated value — at 25 A ■ with 3 current paths in series at DC-1 — at 24 V rated value — at 440 V rated value — at 220 V rated value — at 220 V rated value — at 440 V rated value — at 440 V rated value — at 440 V rated value — at 600 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 440 V rated value — at 440 V rated value — at 440 V rated value — at 220 V rated value — at 220 V rated value — at 220 V rated value — at 600 V rated value — at 220 V rated value — at 600 V rated value — at 600 V rated value — at 440 V rated value — at 440 V rated value — at 440 V rated value — at 450 V rated value —		46.7 A
parational current for approx. 200000 operating cycles at AC-4		46.7 A
e at 400 V rated value	rated value	35 mm²
◆ at 690 V rated value 24 A operational current • at 1 current path at DC-1 — at 24 V rated value 55 A — at 110 V rated value 4.5 A — at 220 V rated value 1 A — at 440 V rated value 0.25 A • with 2 current paths in series at DC-1 - at 24 V rated value — at 24 V rated value 45 A — at 110 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 • with 3 current paths in series at DC-1 55 A — at 24 V rated value 55 A — at 110 V rated value 55 A — at 220 V rated value 55 A — at 420 V rated value 55 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		
● at 1 current path at DC-1 — at 24 V rated value 55 A — at 110 V rated value 4.5 A — at 220 V rated value 1 A — at 440 V rated value 0.25 A — at 600 V rated value 0.25 A • with 2 current paths in series at DC-1 - at 22 V rated value — at 24 V rated value 55 A — at 110 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 — at 24 V rated value 55 A — at 24 V rated value 55 A — at 24 V rated value 55 A — at 220 V rated value 45 A — at 110 V rated value 55 A — at 440 V rated value 45 A — at 440 V rated value 2.9 A — at 600 V rated value 1.4 A Operational current 4.4 A		
• at 1 current path at DC-1 — at 24 V rated value 55 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 55 A — at 110 V rated value 55 A — at 220 V rated value 55 A — at 440 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 55 A — at 110 V rated value 55 A — at 440 V rated value 55 A — at 440 V rated value 45 A — at 220 V rated value 55 A — at 110 V rated value 55 A — at 110 V rated value 55 A — at 220 V rated value 55 A — at 220 V rated value 45 A — at 440 V rated value 45 A — at 440 V rated value 45 A — at 600 V rated value 45 A — at 600 V rated value 1.4 A operational current • at 1 current path at DC-3 at DC-5		24 A
- at 24 V rated value 55 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 45 A - at 110 V rated value 55 A - at 110 V rated value 55 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 55 A - at 110 V rated value 55 A - at 220 V rated value 55 A - at 220 V rated value 55 A - at 24 V rated value 55 A - at 220 V rated value 55 A - at 220 V rated value 55 A - at 220 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 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 - at 24 V rated value 55 A - at 110 V rated value 55 A - at 220 V rated value 55 A - at 440 V rated value 55 A - at 440 V rated value 1 A - at 600 V rated value 55 A - at 110 V rated value 55 A - at 440 V rated value 1 A - at 600 V rated value 55 A • with 3 current paths in series at DC-1 - at 24 V rated value 55 A - at 110 V rated value 55 A - at 110 V rated value 55 A - at 110 V rated value 55 A - at 220 V rated value 55 A - at 220 V rated value 29 A - at 600 V rated value 45 A - at 440 V rated value 2.9 A - at 600 V rated value 1.4 A	·	
- 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 55 A - at 110 V rated value 45 A - at 440 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 3 S A - at 140 V rated value 5 S A - at 140 V rated value 5 S A - at 140 V rated value 5 S A - at 220 V rated value 5 S A - at 220 V rated value 5 S A - at 220 V rated value 5 S A - at 24 V rated value 5 S A - at 24 V rated value 5 S A - at 110 V rated value 5 S A - at 110 V rated value 5 S A - at 220 V rated value 7 S S A - at 220 V rated value 7 S S A - at 240 V rated value 7 S S A - at 240 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S A - at 440 V rated value 7 S S S S S - at 440 V rated value 7 S S S S S - at 440 V rated value 7 S S S S S - at 440 V rated value 7 S S S S S - at 440 V rated value 7 S S S S S S - at 440 V rated value 7 S S S S S S S S S - at 440 V rated value 7 S S S S S S S S S S S S S S S S S S S		
 — at 440 V rated value — at 600 V rated value 0.25 A • 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 240 V rated value — at 250 V rated value — at 440 V rated value — at 600 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 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 — 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 240 V rated value — at 250 V rated value — at 440 V rated value — at 4600 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 440 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 24 V rated value 55 A - at 110 V rated value 45 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 55 A - at 110 V rated value 55 A - at 110 V rated value 45 A - at 220 V rated value 45 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		0.25 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 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 4600 V rated value — at 600 V rated value — at 1 current path at DC-3 at DC-5 		
— 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 55 A — at 110 V rated value 55 A — at 220 V rated value 45 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 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 100 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 55 A — at 110 V rated value 55 A — at 220 V rated value 45 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 55 A — at 220 V rated value 45 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 45 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 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 1.4 A operational current	— at 220 V rated value	
• at 1 current path at DC-3 at DC-5		
• at 1 current path at DC-3 at DC-5		1.4 A
	operational current	
— at 24 V rated value 35 A		
	— at 24 V rated value	35 A

— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 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	55 A
— at 110 V rated value	25 A
— at 220 V rated value	5 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	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	37 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
operating power for approx. 200000 operating cycles	
at AC-4	
• at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	07.011/4
• up to 230 V for current peak value n=20 rated value	27.8 kV·A
• up to 400 V for current peak value n=20 rated value	48.4 kV·A
• up to 500 V for current peak value n=20 rated value	60.6 kV·A
• up to 690 V for current peak value n=20 rated value	69.3 kV·A
operating apparent power at AC-6a	40.0 LV A
• up to 230 V for current peak value n=30 rated value	18.6 kV·A
up to 400 V for current peak value n=30 rated value	32.3 kV·A 40.4 kV·A
up to 500 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value	55.8 kV·A
up to 690 V for current peak value n=30 rated value about time without a current in sold expecting state.	35.6 KV'A
short-time withstand current in cold operating state up to 40 °C	
 limited to 1 s switching at zero current maximum 	1 298 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	898 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	640 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	414 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	333 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	700 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-4 maximum	150 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	42 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	

● at 50 Hz	190 V·A
inductive power factor with closing power of the coil	190 V A
at 50 Hz	0.72
apparent holding power of magnet coil at AC	0.12
• at 50 Hz	16 V·A
	10 V-A
inductive power factor with the holding power of the coil	
● at 50 Hz	0.37
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 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 instantaneous contact	2
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	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	65 A
at 600 V rated value	62 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
• for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
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: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (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	114 mm
width	55 mm
depth	174 mm
required spacing	
with side-by-side mounting	10
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side• for grounded parts	0 mm
•	10
— forwards	10 mm
— upwards	10 mm
— at the side— downwards	6 mm
for live parts	10 mm
— forwards	10 mm
	10 mm
— upwards — downwards	10 mm
— at the side	6 mm
Connections/ Terminals	O Hall
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	osion type terrimies.
for main contacts	
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)
finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
at AWG cables for main contacts	2x (18 2), 1x (18 1)
connectable conductor cross-section for main	
contacts	
finely stranded with core end processing	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
• solid or stranded	0.5 2.5 mm²
	0.5 2.5 mm² 0.5 2.5 mm²
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections	
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts	0.5 2.5 mm²
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded	0.5 2.5 mm² 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing	0.5 2.5 mm ² 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded	0.5 2.5 mm² 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing	0.5 2.5 mm ² 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing at AWG cables for auxiliary contacts AWG number as coded connectable conductor	0.5 2.5 mm ² 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14)
solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts AWG number as coded connectable conductor	0.5 2.5 mm ² 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14) 18 1

proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	40 %
 with high demand rate acc. to SN 31920 	73 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
product function	
 mirror contact acc. to IEC 60947-4-1 	Yes
 positively driven operation acc. to IEC 60947-5-1 	No
T1 value for proof test interval or service life acc. to IEC 61508	20 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
0	

Certificates/ approvals

General Product Approval















Declaration of Conformity

Test Certificates

Marine / Shipping



Miscellaneous

Special Test Certificate Type Test
Certificates/Test
Report





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=3RT2038-1AD04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1AD04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AD04

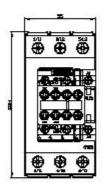
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RT2038-1AD04&lang=en

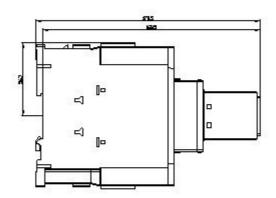
Characteristic: Tripping characteristics, I²t, Let-through current

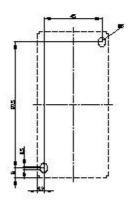
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AD04/char

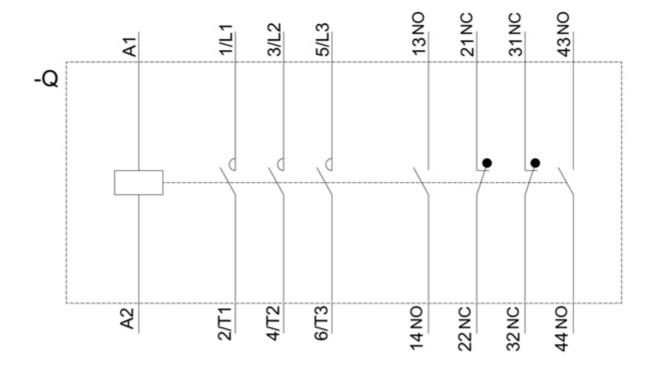
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1AD04&objecttype=14&gridview=view1









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