SIEMENS

Data sheet

3RT2046-3AB00

power contactor, AC-3 95 A, 45 kW / 400 V 1 NO + 1 NC, 24 V AC, 50 Hz 3-pole, 3 NO, Size S3 Spring-type 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 	19.8 W
 at AC in hot operating state per pole 	6.6 W
power loss [W] for rated value of the current without load current share typical	19 W
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 60947-1 	690 V

protection class IP	
• on the front	IP20
• of the terminal	IP00
shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms
mechanical service life (switching cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
 installation altitude at height above sea level 	2 000 m
maximum	
ambient temperature	
 during operation 	-25 +60 °C
• during storage	-55 +80 °C
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
• at AC-3 rated value maximum	1 000 V
operating current	
● at AC-1 at 400 V	
	130 A
• at AC-1 at 400 V	130 A
• at AC-1 at 400 V — at ambient temperature 40 °C rated value	130 A 130 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C 	
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C 	130 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 40 °C 	130 A 110 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 60 °C 	130 A 110 A 70 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 60 °C rated value 	130 A 110 A 70 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 60 °C rated value at AC-3 	130 A 110 A 70 A 60 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 40 °C rated value up to 1000 V at ambient temperature 60 °C rated value up to 1000 V at ambient temperature 60 °C rated value at AC-3 at 400 V rated value 	130 A 110 A 70 A 60 A

• at AC-5a up to 690 V rated value	114 A
● at AC-5b up to 400 V rated value	95 A
● at AC-6a	
 — up to 230 V for current peak value n=20 rated value 	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
— up to 500 V for current peak value n=20 rated value	84.4 A
— up to 690 V for current peak value n=20 rated value	58 A
● at AC-6a	
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A
minimum cross-section in main circuit	
 at maximum AC-1 rated value 	50 mm²
operating current for approx. 200000 operating	
cycles at AC-4	42.4
• at 400 V rated value	42 A
cycles at AC-4at 400 V rated valueat 690 V rated value	42 A 30 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current	
 cycles at AC-4 at 400 V rated value at 690 V rated value operating current at 1 current path at DC-1 	30 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value	30 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value	30 A 100 A 9 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value	30 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value	30 A 100 A 9 A 2 A 0.6 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	30 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 20 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1	30 A 100 A 9 A 2 A 0.6 A 0.4 A
 cycles at AC-4 at 400 V rated value at 690 V rated value operating current at 1 current path at DC-1 at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value 	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value • ut 10 V rated value • ut 10 V rated value	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 220 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 220 V rated value	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 24 V rated value	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 220 V rated value — at 440 V rated value — at 240 V rated value — at 200 V rated value	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
 cycles at AC-4 at 400 V rated value at 690 V rated value operating current at 1 current path at DC-1 at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 24 V rated value at 600 V rated value at 110 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 110 V rated value at 110 V rated value at 24 V rated value at 20 V rated value 	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 A 10 A 1.8 A 1 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 220 V rated value — at 220 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 240 V rated value — at 600 V rated value — at 600 V rated value — at 240 V rated value	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A 10 A 10 A
 cycles at AC-4 at 400 V rated value at 690 V rated value operating current at 1 current path at DC-1 at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 24 V rated value at 600 V rated value at 110 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 110 V rated value at 110 V rated value at 24 V rated value at 20 V rated value 	30 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 A 10 A 1.8 A 1 A

operating current • at 1 current path at DC-3 at DC-5 - - at 24 V rated value 40 A - at 220 V rated value 1A - at 220 V rated value 0.15 A - at 600 V rated value 0.06 A - at 600 V rated value 0.00 A - at 440 V rated value 0.42 A - at 440 V rated value 0.46 A - at 440 V rated value 0.8 A - at 440 V rated value 0.8 A - at 420 V rated value 45 kW - at 430 V rated value 45 kW - at 400 V rated value 56 kW - at 400 V rated value 58 kWA	— at 440 V rated value	4.5 A
e at 1 current path at DC-3 at DC-5 e at 24 V rated value 40 A 2.5 A a t 24 V rated value 2.5 A a t 20 V rated value 0.06 A - at 240 V rated value 0.07 A - at 240 V rated value 100 A - at 220 V rated value 0.08 A - at 220 V rated value 0.07 A - at 240 V rated value 0.08 A - at 220 V rated value 0.08 A - at 220 V rated value 0.07 A - at 220 V rated value 0.16 A - at 240 V rated value 0.08 A - at 250 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 2 K W - at 600 V rated value 0 rate 0 V rated value	— at 600 V rated value	2.6 A
	operating current	
	 at 1 current path at DC-3 at DC-5 	
- at 220 V rated value 1 A - 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 220 V rated value 100 A - at 220 V rated value 0.42 A - at 440 V rated value 0.42 A - at 440 V rated value 0.16 A - at 220 V rated value 0.16 A - at 220 V rated value 0.35 A - at 440 V rated value 100 A - at 440 V rated value 0.35 A - at 220 V rated value 35 A - at 220 V rated value 35 A - at 230 V rated value 22 kW - at 230 V rated value 45 kW - at 230 V rated value 25 kW - at 230 V rated value 22 kW - at 630 V rated value 22 kW - at 630 V rated value 22 kW - at 630 V rated value 33 kVA - at 690 V rated value 33 kVA - at 690 V rated value 33 kVA - at 690 V for current peak	— at 24 V rated value	40 A
Label of Vale value0.15 Å- at 440 V rated value0.06 Å• with 2 current paths in series at DC-3 at DC-5 at 24 V rated value100 Å- at 110 V rated value100 Å- at 24 V rated value0.42 Å- at 440 V rated value0.42 Å- at 440 V rated value0.16 Å- at 440 V rated value0.16 Å- at 20 V rated value0.8 Å- at 440 V rated value0.8 Å- at 440 V rated value0.35 Å- at 440 V rated value0.8 Å- at 440 V rated value0.8 Å- at 440 V rated value0.8 Å- at 230 V rated value0.8 Å- at 230 V rated value0.55 Å- at 230 V rated value0.55 Å- at 400 V rated value22 kW- at 600 V rated value55 kW- at 600 V rated value22 kW- at 600 V rated value55 kW- at 600 V rated value22 kW- at 600 V rated value55 kW- at 600 V rated value22 kW- at 600 V rated value25 kW- at 600 V rated value25 kW- at 600 V rated value25 kW- at 600 V rated value55 kW- at 600 V rated value56 kW- at 600 V rated value27.4 kWoperating power for approx. 20000 operating cyclea38 kVA- at 600 V rated value68 kVA- up to 200 V for current peak value n=20 rated value38 kVA- up to 000 V for current peak value n=20 rated value58 kVA- up to 600 V for c	— at 110 V rated value	2.5 A
Labor V rated value0.06 Å• with 2 current paths in series at DC-3 at DC-5100 Å- at 24 V rated value100 Å- at 10 V rated value100 Å- at 220 V rated value0.42 Å- at 440 V rated value0.42 Å- at 600 V rated value0.16 Å• with 3 current paths in series at DC-3 at DC-5 at 220 V rated value100 Å- at 220 V rated value100 Å- at 24 V rated value100 Å- at 20 V rated value0.8 Å- at 400 V rated value0.8 Å- at 600 V rated value22 kW- at 230 V rated value45 kW• at AC-3 at 230 V rated value55 kW- at 300 V rated value55 kW- at 690 V rated value76 kW- at 690 V rated value22 kW- at 690 V rated value22 kW- at 690 V rated value35 kW- at 690 V rated value22 kW- at 690 V rated value33 kV-A- at 690 V rated value33 kV-Avalue-• up to 230 V for current peak value n=20 rated value58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58 kV-Avalue-58	— at 220 V rated value	1 A
 with 2 current paths in series at DC-3 at DC-5 at 24 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 400 V rated value at 400 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 10 V rated value 100 A at 20 V rated value 100 A at 20 V rated value 100 A at 20 V rated value 0.6 A with 3 current paths in series at DC-3 at DC-5 at 220 V rated value 0.5 A at 220 V rated value 0.8 A at 400 V rated value 0.35 A certaing power at AC-3 at AC-3 at 300 V rated value 45 kW at 400 V rated value 55 kW at 400 V rated value 55 kW at 400 V rated value 55 kW at 690 V rated value 55 kW at 400 V rated value 55 kW at 400 V rated value 58 kW at 690 V rated value 58 kW at 400 V rated value 57 kW 	— at 440 V rated value	0.15 A
 - 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 400 V rated value - at 600 V rated value - at 24 V rated value - at 220 V rated value - at 600 V rated value - at 600 V rated value - at 230 V rated value - at 400 V rated value - at 400 V rated value - at 690 V rated value - at 400 V rated value - at 690 V rated value - at 400 V rated value - at 690 V for current peak value n=20 rated - walue - walue b 690 V for current peak value n=20 rated - walue - walue b 690 V for current peak value n=20 rated - walue - walue b 690 V for current peak value n=20 rated -	— at 600 V rated value	0.06 A
 at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 220 V rated value at 440 V rated value 35 A at 440 V rated value 35 A at 440 V rated value 36 A at 440 V rated value 37 A at 400 V rated value 38 A at 400 V rated value 55 kW at 600 V rated value 56 kW at 600 V rated value 58 kV-A value value k value n=20 rated 58 kV-A value value k value n=20 rated 69 kV-A 	 with 2 current paths in series at DC-3 at DC-5 	
at 220 V rated value7 A- at 220 V rated value0.42 A- at 400 V rated value0.16 A• with 3 current paths in series at DC-3 at DC-5 at 24 V rated value100 A- at 110 V rated value100 A- at 220 V rated value35 A- at 400 V rated value0.8 A- at 600 V rated value0.8 A- at 230 V rated value0.8 A- at 230 V rated value0.8 A- at 230 V rated value22 kW- at 400 V rated value45 kW- at 400 V rated value22 kW- at 600 V rated value55 kW- at 600 V rated value22 kW- at 600 V rated value33 kV-A- at 600 V rated value n=20 rated38 kV-A- up to 500 V for current peak value n=20 rated58 kV-A- up to 500 V for current peak value n=20 rated69 kV-A	— at 24 V rated value	100 A
 at 440 V rated value at 440 V rated value at 600 V rated value 0.16 A with 3 current paths in series at DC-3 at DC-5 at 24 V rated value 100 A at 110 V rated value 100 A at 220 V rated value 0.8 A at 600 V rated value 0.35 A operating power et AC-2 at 400 V rated value 45 kW at AC-3 at 230 V rated value 45 kW at AC-3 at 230 V rated value 55 kW at 600 V rated value 56 kW at 400 V rated value 57 kW 	— at 110 V rated value	100 A
 at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 400 V rated value at 600 V rated value bit 600 V rated value cit 600 V rated value n=20 rated value cit 600 V for current peak value n=20 rated value cit 600 V for current peak value n=20 rated value cit 600 V for current peak value n=20 rated value cit 600 V for current peak value n=20 rated value cit 600 V for current peak value n=20 rated value cit 600 V for current peak value n=20 rated va	— 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 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 AC-2 at 400 V rated value at AC-3 at 220 V 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 55 kW at 690 V rated value 55 kW at 690 V rated value 22 kW at 690 V rated value 35 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value at 690 V rated value 22 kW at 400 V rated value 33 kV-A operating apparent cutput at AC-6a up to 230 V for current peak value n=20 rated 48 kV-A value up to 500 V for current peak value n=20 rated 58 kV-A value up to 500 V for current peak value n=20 rated 69 kV-A value up to 500 V for current peak value n=20 rated 69 kV-A 	— at 440 V rated value	0.42 A
- at 24 V rated value 100 A - at 110 V rated value 100 A - at 220 V rated value 35 A - at 440 V rated value 0.8 A - at 600 V rated value 0.35 A operating power 45 kW - at 230 V rated value 22 kW - at 400 V rated value 22 kW - at 600 V rated value 55 kW - at 600 V rated value 55 kW - at 600 V rated value 55 kW - at 600 V rated value 22 kW - at 600 V rated value 33 kV-A - at 600 V rated value n=20 rated 58 kV-A value - 38 kV-A - up to 500 V for current peak value n=20 rated 58 kV-A value - 37 kV-A - up to 690 V for current peak value n=20 rated 68 kV-A value - 0400 V for current peak value n=20 rated 69 kV-A <td>— at 600 V rated value</td> <td>0.16 A</td>	— at 600 V rated value	0.16 A
 at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value 0.8 A at 600 V rated value 0.8 A at 600 V rated value 0.8 A at AC-2 at 400 V rated value 45 kW at AC-3 - at 230 V rated value 45 kW - at 400 V rated value 22 kW - at 500 V rated value - at 690 V rated value 55 kW - at 690 V rated value 22 kW - at 690 V rated value 33 kV-A value - up to 400 V for current peak value n=20 rated value - 58 kV-A value - up to 690 V for current peak value n=20 rated value - 58 kV-A - 400 V for current peak value n=20 rated value - 58 kV-A - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current peak value n=20 rated value - 100 V for current pe	 with 3 current paths in series at DC-3 at DC-5 	
 at 220 V rated value at 220 V rated value at 440 V rated value 0.8 A at 600 V rated value 0.35 A operating power at AC-2 at 400 V rated value 45 kW at AC-3 at 230 V rated value 22 kW at 400 V rated value 45 kW at 400 V rated value 55 kW at 600 V rated value 55 kW at 600 V rated value 55 kW at 600 V rated value 57 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 22 kW at 690 V rated value 22 kW at 690 V rated value 22 kW at 690 V rated value 33 kV-A value up to 230 V for current peak value n=20 rated value value up to 500 V for current peak value n=20 rated value 58 kV-A value 13 kV-A value 58 kV-A value 58 kV-A value 59 kV-A value 	— at 24 V rated value	100 A
- at 440 V rated value0.8 A- at 600 V rated value0.35 Aoperating power45 kW- at AC-2 at 400 V rated value45 kW- at AC-322 kW- at 230 V rated value45 kW- at 400 V rated value55 kW- at 600 V rated value55 kW- at 600 V rated value75 kWoperating power for approx. 200000 operating cycles at AC-422 kW- at 690 V rated value22 kW- at 690 V rated value55 kW- at 690 V rated value22 kW- at 690 V rated value33 kV-A- at 400 V rated value27.4 kWoperating apparent output at AC-6a value33 kV-A- outp to 200 V for current peak value n=20 rated value58 kV-A- outp to 500 V for current peak value n=20 rated value73 kV-A- outp to 690 V for current peak value n=20 rated value69 kV-A	— at 110 V rated value	100 A
at 600 V rated value0.35 Aoperating power45 kW- at AC-2 at 400 V rated value45 kW- at AC-322 kW- at 230 V rated value45 kW- at 400 V rated value45 kW- at 500 V rated value55 kW- at 690 V rated value75 kWoperating power for approx. 200000 operating cycles22 kWat AC-422 kWoperating apparent output at AC-6a22 kW• up to 230 V for current peak value n=20 rated33 kV-Avalue58 kV-A• up to 500 V for current peak value n=20 rated73 kV-Avalue73 kV-A• up to 690 V for current peak value n=20 rated69 kV-A	— at 220 V rated value	35 A
operating power• at AC-2 at 400 V rated value45 kW• at AC-322 kW- at 230 V rated value22 kW- at 400 V rated value45 kW- at 500 V rated value55 kW- at 690 V rated value75 kWoperating power for approx. 200000 operating cycles75 kWat AC-422 kW• at 400 V rated value22 kW• at 400 V rated value22 kW• at 690 V rated value22 kW• at 690 V rated value27.4 kWoperating apparent output at AC-6a33 kV-A• up to 230 V for current peak value n=20 rated value58 kV-A• up to 400 V for current peak value n=20 rated value73 kV-A• up to 500 V for current peak value n=20 rated value69 kV-A	— at 440 V rated value	0.8 A
• at AC-2 at 400 V rated value45 kW• at AC-322 kW- at 230 V rated value22 kW- at 400 V rated value45 kW- at 500 V rated value55 kW- at 690 V rated value75 kWoperating power for approx. 200000 operating cycles at AC-422 kW• at 400 V rated value22 kW• at 690 V rated value22 kW• at 690 V rated value21 kW• at 690 V rated value33 kV-A• up to 230 V for current peak value n=20 rated value33 kV-A• up to 400 V for current peak value n=20 rated value58 kV-A• up to 500 V for current peak value n=20 rated value73 kV-A• up to 500 V for current peak value n=20 rated value69 kV-A	— at 600 V rated value	0.35 A
 at AC-3 at AC-3 at AC-3 at AC-3 at 230 V rated value at 400 V rated value 45 kW at 500 V rated value 55 kW at 690 V rated value 75 kW operating power for approx. 200000 operating cycles at AC-4 at AC-4 at 400 V rated value 22 kW at 400 V rated value 22 kW operating apparent output at AC-6a at 690 V rated value n=20 rated value bup to 230 V for current peak value n=20 rated value bup to 400 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 690 V for current peak value n=20 rated value bup to 500 V for current peak value n=20 rated value bup	operating power	
- at 230 V rated value22 kW- at 400 V rated value45 kW- at 500 V rated value55 kW- at 690 V rated value75 kWat AC-422 kW• at 400 V rated value22 kW• at 400 V rated value22 kW• at 690 V rated value27.4 kWoperating apparent output at AC-6a33 kV-A• up to 230 V for current peak value n=20 rated value58 kV-A• up to 500 V for current peak value n=20 rated value58 kV-A• up to 500 V for current peak value n=20 rated value69 kV-A	• at AC-2 at 400 V rated value	45 kW
 at 400 V rated value at 400 V rated value at 500 V rated value at 600 V rated value at 600 V rated value 55 kW at AC-4 operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 22 kW at 690 V rated value 27.4 kW operating apparent output at AC-6a up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value 09 kV-A 	• at AC-3	
- at 500 V rated value55 kW- at 690 V rated value75 kWoperating power for approx. 200000 operating cycles at AC-422 kW• at 400 V rated value22 kW• at 690 V rated value27.4 kWoperating apparent output at AC-6a33 kV·A• up to 230 V for current peak value n=20 rated value58 kV·A• up to 400 V for current peak value n=20 rated value58 kV·A• up to 500 V for current peak value n=20 rated value69 kV·A	— at 230 V rated value	22 kW
	— at 400 V rated value	45 kW
operating power for approx. 200000 operating cycles at AC-4• at 400 V rated value22 kW• at 690 V rated value27.4 kWoperating apparent output at AC-6a33 kV·A• up to 230 V for current peak value n=20 rated value33 kV·A• up to 400 V for current peak value n=20 rated value58 kV·A• up to 500 V for current peak value n=20 rated value58 kV·A• up to 500 V for current peak value n=20 rated value69 kV·A	— at 500 V rated value	55 kW
at AC-4• at 400 V rated value22 kW• at 690 V rated value27.4 kWoperating apparent output at AC-6a• up to 230 V for current peak value n=20 rated value33 kV·A• up to 400 V for current peak value n=20 rated value58 kV·A• up to 500 V for current peak value n=20 rated value58 kV·A• up to 500 V for current peak value n=20 rated value69 kV·A	— at 690 V rated value	75 kW
 at 690 V rated value at 690 V rated value 27.4 kW operating apparent output at AC-6a up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value b to 500 V for current peak value n=20 rated value c up to 500 V for current peak value n=20 rated value b to 500 V for current peak value n=20 rated value c up to 690 V for current peak value n=20 rated c value c up to 690 V for current peak value n=20 rated c value c value c value c value c value n=20 rated to 69 kV-A 		
operating apparent output at AC-6a 33 kV·A • up to 230 V for current peak value n=20 rated value 33 kV·A • up to 400 V for current peak value n=20 rated value 58 kV·A • up to 500 V for current peak value n=20 rated value 58 kV·A • up to 500 V for current peak value n=20 rated value 69 kV·A		22 kW
 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 69 kV·A 	• at 690 V rated value	27.4 kW
value • up to 400 V for current peak value n=20 rated value 58 kV·A • up to 500 V for current peak value n=20 rated value 73 kV·A • up to 690 V for current peak value n=20 rated value 69 kV·A	operating apparent output at AC-6a	
value • up to 500 V for current peak value n=20 rated value 73 kV·A • up to 690 V for current peak value n=20 rated 69 kV·A		33 kV·A
 • up to 690 V for current peak value n=20 rated • up to 690 V for current peak value n=20 rated • 69 kV·A 		58 kV·A
		73 kV·A
		69 kV·A

 up to 230 V for current peak value n=30 rated value 	22.4 kV·A
 up to 400 V for current peak value n=30 rated value 	39 kV·A
 up to 500 V for current peak value n=30 rated value 	48.7 kV·A
 up to 690 V for current peak value n=30 rated value 	67.3 kV·A
short-time withstand current in cold operating state	
up to 40 °C	
 limited to 1 s switching at zero current maximum 	1 725 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	1 297 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	946 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	610 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	486 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
● at AC-1 maximum	900 1/h
● at AC-2 maximum	350 1/h
● at AC-3 maximum	850 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	24 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	296 V·A
inductive power factor with closing power of the coil	
● at 50 Hz	0.61
apparent holding power of magnet coil at AC	
• at 50 Hz	19 V·A
inductive power factor with the holding power of the coil	
● at 50 Hz	0.38
closing delay	

• at AC	13 50 ms
opening delay	
• at AC	10 21 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	
• instantaneous contact	1
number of NO contacts for auxiliary contacts	
• instantaneous contact	1
operating current at AC-12 maximum	10 A
operating current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
operating current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operating current at DC-13	
• at 24 V rated value	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)
JL/CSA ratings	
full-load current (FLA) for three-phase AC motor	
● at 480 V rated value	96 A
• at 600 V rated value	77 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	10 hp
— at 230 V rated value	20 hp

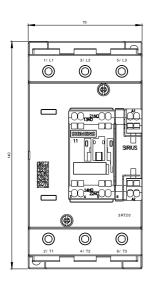
 for three-phase AC motor 	
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	30 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	75 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
 for short-circuit protection 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: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125
	A (415 V, 80 kA)
• for short-circuit protection of the auxiliary switch	gG: 10 A (500 V, 1 kA)
required	
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
mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
mounting type	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	

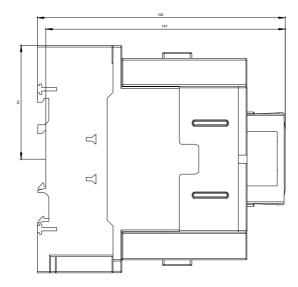
type of electrical connection	
 for main current circuit 	screw-type terminals
 for auxiliary and control current circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
• of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	
 for main contacts 	
- finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
 at AWG conductors for main contacts 	2x (10 1/0), 1x (10 2)
connectable conductor cross-section for main	
contacts	
• solid	2.5 16 mm²
• stranded	6 70 mm²
 finely stranded with core end processing 	2.5 50 mm²
connectable conductor cross-section for auxiliary	
contacts	0.5 0.5
• single or multi-stranded	0.5 2.5 mm ²
• finely stranded with core end processing	0.5 2.5 mm ²
 finely stranded without core end processing 	0.5 2.5 mm²
 type of connectable conductor cross-sections for auxiliary contacts 	
— single or multi-stranded	2x (0.5 2.5 mm²)
— finely stranded with core end processing	2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 type of connectable conductor cross-sections at AWG conductors for auxiliary contacts 	2x (20 16)
AWG number as coded connectable conductor cross	
section	
• for main contacts	10 2
 for auxiliary contacts 	20 14
Safety related data	
B10 value	
• with high demand rate acc. to SN 31920	1 000 000
proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %
• with high demand rate acc. to SN 31920	73 %
failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
product function	
 mirror contact acc. to IEC 60947-4-1 	Yes

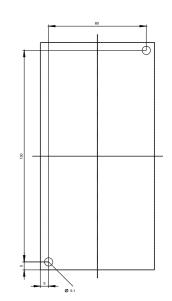
 positively driven 1 	ren operation acc. to l	EC 60947-5-	No		
IEC 61508	est interval or service		20 у		
protection against e	ectrical shock		finger-safe when touched	d vertically from from	nt acc. to IEC 60529
suitability for use sa	afety-related switching) OFF	Yes		
Certificates/ approv					=140
General Produc	st Approval				EMC
ccc	CSA		<u>KC</u>	EHC	RCM
Declaration of (Conformity	Test Certific	ates	Marine / Shippi	ing
CE EG-Konf.	Miscellaneous	Type Test Certi ates/Test Repo		ABS	Llovd's Register Irs
Marine / Shippi	ng			other	Railway
	RINA		REPROVED PROJE	Confirmation	Vibration and Shock
PRS		RMRS			
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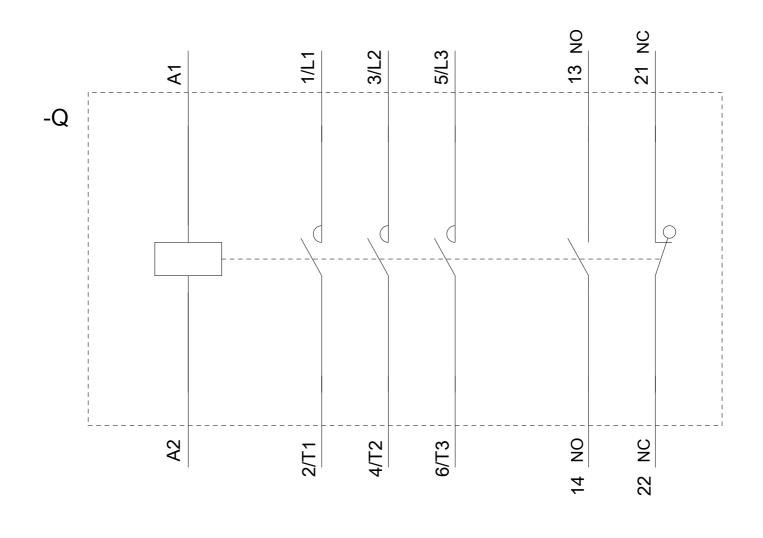
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-3AB00/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-3AB00&objecttype=14&gridview=view1









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