SIEMENS

Data sheet 3RT2045-1NF30



power contactor, AC-3 80 A, 37 kW / 400 V 1 NO + 1 NC, 84-155 V AC/DC 3-pole, 3 NO, Size S3 screw terminal integrated varistor

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	15.9 W
• per pole	5.3 W
power loss [W] for rated value of the current without load current share typical	3.5 W
surge voltage resistance	
 of main circuit rated value 	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
• at DC	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
• at DC	10.6 g / 5 ms, 6.3 g / 10 ms
mechanical service life (switching cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.03.2017 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
Main circuit	
number of poles for main current circuit	3

number of NO contacts for main contacts	3
operating voltage at AC-3 rated value maximum	1 000 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	125 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C	125 A
rated value	
— up to 690 V at ambient temperature 60 °C rated value	105 A
 up to 1000 V at ambient temperature 40 °C rated value 	60 A
 up to 1000 V at ambient temperature 60 °C rated value 	50 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	66 A
• at AC-5a up to 690 V rated value	110 A
at AC-5b up to 400 V rated value	80 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	80 A
 up to 400 V for current peak value n=20 rated value 	80 A
 up to 500 V for current peak value n=20 rated value 	80 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 	54 A
 up to 400 V for current peak value n=30 rated value 	54 A
 up to 500 V for current peak value n=30 rated value 	54 A
 up to 690 V for current peak value n=30 rated value 	54 A
minimum cross-section in main circuit at maximum AC-1 rated value	50 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	34 A
at 690 V rated value	24 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	100 A
— at 24 V rated value — at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
with 3 current paths in series at DC-1	400.4
— at 24 V rated value	100 A
— at 110 V rated value	100 A

	— at 220 V rated value	80 A
■ at 1 current path at DC-3 at DC-5 ■ at 24 V rated value ■ at 10 V rated value ■ at 40 V rated value ■ with 2 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 110 V rated value ■ at 20 V rated value ■ at 20 V rated value ■ at 40 V rated value ■ at 20 V rated value ■ at 40 V rated value ■ at 400 V rated value ■ at 600 V rated val	— at 440 V rated value	
* at 1 current path at DC-3 at DC-5	— at 600 V rated value	2.6 A
	operational current	
	 at 1 current path at DC-3 at DC-5 	
	— at 24 V rated value	40 A
	— at 110 V rated value	2.5 A
- at 600 V rated value • with 2 current paths in series at DC-3 at DC-5 - at 24 V rated value - at 110 V rated value - at 440 V rated value - at 440 V rated value - at 110 V rated value - at 110 V rated value - at 220 V rated value - at 110 V rated value - at 110 V rated value - at 110 V rated value - at 120 V rated value - at 230 V rated value - at 250 V rated value - at 250 V rated value - at 250 V rated value - at 400 V rated value - at 500 V rated value - at 600 V rated value - at	— 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 400 V rated value — at 600 V rated value — at 110 V rated value — at 120 V rated value — at 120 V rated value — at 120 V rated value — at 220 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 500 V rated value — at 600 V rated value — at 1000 V rated value — at 1000 V rated value — at 600 V rated value — at 100 V rated value — at 100 V rated value — at 100 V for current peak value n=20 rated value — at 600 V for current peak value n=20 rated value — at 600 V for current peak value n=20 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600 V for current peak value n=30 rated value — at 600	— at 440 V rated value	0.15 A
	— at 600 V rated value	0.06 A
- at 110 V rated value	 with 2 current paths in series at DC-3 at DC-5 	
	— at 24 V rated value	100 A
	— at 110 V rated value	100 A
with 3 current paths in series at DC-3 at DC-5 = d 24 V rated value = d 110 V rated value = d 140 V rated value = d 1440 V rated value = d 1440 V rated value = d 1440 V rated value = d 1400 V rated value = d 1400 V rated value = d 1400 V rated value = d 1230 V rated value = d 1230 V rated value = d 1400 V rated value = d 1400 V rated value = d 1500 V rated value raso rated value = d 1500 V rated value = d 1	— at 220 V rated value	7 A
• with 3 current paths in series at DC-3 at DC-5 — at 24 Y rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — 35 A — at 600 V rated value — 37 kW • at AC-2 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 600 V rated value — at 1000 V rated value • at 600 V rated value • at 600 V rated value • at 600 V 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=30 rated value • up to 600 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 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 v	— at 440 V rated value	0.42 A
	— at 600 V rated value	0.16 A
at 110 V rated value	 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
operating power	— at 220 V rated value	35 A
e at AC-2 at 400 V rated value e at AC-3 — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 1000 V rated value — at 400 V rated value — at 400 V rated value operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=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 690 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 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 • 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	— at 440 V rated value	0.8 A
• at AC-2 at 400 V rated value • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 600 V rated value — at 1000 V rated value — at 1000 V rated value — at 1000 V rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 1000 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 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 400 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 400 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 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 • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zer	— at 600 V rated value	0.35 A
at AC-3 at 230 V rated value at 400 V rated value at 690 V rated value at 1000 V rated value at 1000 V rated value at 690 V rated value at 400 V rated value 37 kW operating power for approx. 200000 operating cycles at AC-4 at 400 V rated value 21.8 kW operating apparent power 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 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 sup to 600 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 15.5 kV-A 37.4 kV-A 46.7 kV-A 46.7 kV-A 46.7 kV-A 46.7 kV-A 46.7 kV-A 46.7 kV-A 47.4 kV-A 48.5 kV-A 48.7 kV-A 49.7 kV-A 40.7 kV-A	operating power	
- at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 2000 V rated value - at 1000 V rated value - at 400 V rated value - at 400 V rated value - at 400 V rated value - at 690 V rated value - up to 230 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 230 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 690 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 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	• at AC-2 at 400 V rated value	37 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rated value - up to 230 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=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 500 V for switching at zero current maximum - limited to 1 s switching at zero current maximum - limited to 50 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limited to 60 s switching at zero current maximum - limite	• at AC-3	
- at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • at 690 V rated value operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 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 900 V for current peak value n=30 rated value • up to 900 V for current peak value n=30 rated value • up to 900 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 400 V C • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limit	— at 230 V rated value	22 kW
- at 690 V rated value - at 1000 V rated value Operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • 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 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 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 • limited to 1 s switching at zero current maximum • limited to 1 s switching at zero current maximum • limited to 3 s switching at zero current maximum • limited to 3 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at	— at 400 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 530 V for current peak value n=20 rated value • up to 698 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 530 V for current peak value n=20 rated value • up to 530 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero	— at 500 V rated value	45 kW
operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 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=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 690 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 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 • 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 v	— at 690 V rated value	55 kW
at AC-4 • at 400 V rated value • at 690 V rated value operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited	— at 1000 V rated value	37 kW
at 690 V rated value operating apparent power 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 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 operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C imited to 1 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum al mo-load switching frequency at AC at DC operating frequency at AC-1 maximum at AC-2 maximum 1000 1/h 1000 1/h 1000 1/h 1000 1/h		
operating apparent power 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 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 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum	 at 400 V rated value 	17.9 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 690 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 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 690 V for current peak value n=30 rated value up to 690 V for current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum lim	at 690 V rated value	21.8 kW
 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 operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum at AC at AC at AC at AC-1 maximum at AC-2 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum 1000 1/h 	operating apparent power at AC-6a	
up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value limited to 1 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum at AC at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 69 kV·A 69 kV·A 21.5 kV·A 21.5 kV·A 37.4 kV·A 46.7 kV·A 46.7 kV·A 46.8 kV·A 46.7 kV·A 46.8 kV·A 46.9 kV·A 46.7 kV·A 46.7 kV·A 46.8 kV·A 46.9 kV·A 46.9 kV·A 46.9 kV·A 46.7 kV·A 46.7 kV·A 46.7 kV·A 46.8 kV·A 46.7 kV·A 46.8 kV·A 46.7 kV·A 46.8 kV·A 46.7 kV·A 46.7 kV·A 46.8 kV·A 46.7	 up to 230 V for current peak value n=20 rated value 	31 kV·A
up to 690 V for current peak value n=20 rated value operating apparent power at AC-6a	 up to 400 V for current peak value n=20 rated value 	55 kV·A
operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to	 up to 500 V for current peak value n=20 rated value 	69 kV·A
 up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to	• up to 690 V for current peak value n=20 rated value	69 kV·A
 up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 6	operating apparent power at AC-6a	
up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C elimited to 1 s switching at zero current maximum elimited to 5 s switching at zero current maximum elimited to 10 s switching at zero current maximum elimited to 30 s switching at zero current maximum elimited to 30 s switching at zero current maximum elimited to 60 s switching at zero current maximum elimited to 60 s switching at zero current maximum for a current maximum for a current maximum for a current in cold operating state up to 40 °C elimited to 1 s switching at zero current maximum for a current maximum for a current maximum for a current maximum for a current in cold operating state for a current maximum for a current in cold operating state for a current maximum for a current maximum cross-section acc. to AC-1 rated value for a current maximum for a current maximum cross-section acc. to AC-1 rated value for a current maximum for a current maxi	• up to 230 V for current peak value n=30 rated value	21.5 kV·A
• up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 1	• up to 400 V for current peak value n=30 rated value	37.4 kV·A
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC • at DC 1 000 1/h operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum 1 500 A; Use minimum cross-section acc. to AC-1 rated value 1 186 A; Use minimum cross-section acc. to AC-1 rated value 238 A; Use minimum cross-section acc. to AC-1 rated value 1 000 1/h 1 000 1/h 1 000 1/h	• up to 500 V for current peak value n=30 rated value	46.7 kV·A
up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching frequency • at AC • at DC • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • limited to 10 s switching at zero current maximum 1 500 A; Use minimum cross-section acc. to AC-1 rated value 851 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 1 000 1/h 1 000 1/h 900 1/h 1 000 1/h 1 000 1/h		64.5 kV·A
 limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum at AC at AC at AC-1 maximum at AC-2 maximum at AC-3 maximum 186 A; Use minimum cross-section acc. to AC-1 rated value 851 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1 rated value 423 A; Use minimum cross-section acc. to AC-1		
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum no-load switching frequency at AC at DC 1 000 1/h operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 1 000 1/h 	 limited to 1 s switching at zero current maximum 	1 500 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum no-load switching frequency at AC at DC 1 000 1/h operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 1 000 1/h 	 limited to 5 s switching at zero current maximum 	1 186 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum no-load switching frequency at AC at DC 1 000 1/h operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 423 A; Use minimum cross-section acc. to AC-1 rated value 1 000 1/h 900 1/h 400 1/h 1 000 1/h 1 000 1/h 	 limited to 10 s switching at zero current maximum 	851 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency 1 000 1/h • at AC 1 000 1/h • at DC 1 000 1/h operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 1 000 1/h • at AC-3 maximum 1 000 1/h	 limited to 30 s switching at zero current maximum 	538 A; Use minimum cross-section acc. to AC-1 rated value
 at AC at DC 1 000 1/h operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 1 000 1/h 400 1/h 1 000 1/h 		423 A; Use minimum cross-section acc. to AC-1 rated value
● at DC operating frequency ● at AC-1 maximum ● at AC-2 maximum ● at AC-3 maximum 1 000 1/h 1 000 1/h 1 000 1/h		
operating frequency • at AC-1 maximum 900 1/h • at AC-2 maximum 400 1/h • at AC-3 maximum 1 000 1/h		
 at AC-1 maximum at AC-2 maximum at AC-3 maximum 900 1/h 400 1/h 1 000 1/h 		1 000 1/h
 at AC-2 maximum at AC-3 maximum 400 1/h 1 000 1/h 		
• at AC-3 maximum 1 000 1/h		
at AC-4 maximum 300 1/h		
	• at AC-4 maximum	300 1/h

Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
• at 50 Hz rated value	83 155 V
at 60 Hz rated value	83 155 V
control supply voltage at DC	
• rated value	83 155 V
operating range factor control supply voltage rated	
value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated	
value of magnet coil at AC	0.8 1.1
at 50 Hzat 60 Hz	0.8 1.1 0.8 1.1
	vith varistor
design of the surge suppressor inrush current peak	usth varistor
duration of inrush current peak	1.5 A 50 μs
locked-rotor current mean value	1.1 A
locked-rotor current mean value	2.7 A
duration of locked-rotor current	150 ms
holding current mean value	15 mA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	151 V·A
• at 60 Hz	151 V·A
apparent holding power of magnet coil at AC	
• at 50 Hz	3.5 V·A
• at 60 Hz	3.5 V·A
closing power of magnet coil at DC	76 W
holding power of magnet coil at DC	2.7 W
closing delay	
• at AC	50 70 ms
• at DC	50 70 ms
opening delay	
• at AC	38 57 ms
• at DC	38 57 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
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 at 600 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	40.0
 at 24 V rated value 	10 A

 at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 600 V rated value 	
 at 110 V rated value at 125 V rated value at 220 V rated value 0.3 A 	
 at 125 V rated value at 220 V rated value 0.9 A 0.3 A 	
• at 220 V rated value 0.3 A	
• at 600 V rated value	
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 77 A	
at 600 V rated value 62 A	
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value 7.5 hp	
— at 230 V rated value 15 hp	
• for 3-phase AC motor	
— at 200/208 V rated value 25 hp	
— at 220/230 V rated value 30 hp	
— at 460/480 V rated value 60 hp	
— at 575/600 V rated value 60 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: (415 V, 80 kA)	200 A
— 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 to forward and backward by +/- 22.5° on vertical mounting surface.	
fastening method screw and snap-on mounting onto 35 mm standard mounting raccording to DIN EN 60715	ail
• side-by-side mounting Yes	
, ,	
height 140 mm	
height 140 mm width 70 mm	
height 140 mm	
height 140 mm width 70 mm	
height 140 mm width 70 mm depth 152 mm	
height 140 mm width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards 20 mm	
height 140 mm width 70 mm depth 152 mm required spacing • with side-by-side mounting	
height 140 mm width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards 20 mm	
height 140 mm width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards 20 mm — upwards 10 mm	
height width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards — upwards — upwards — downwards 10 mm 10 mm	
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	
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	
height width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards — upwards — upwards — downwards — at the side • for grounded parts — forwards — forwards 20 mm	
height width 70 mm depth 152 mm required spacing with side-by-side mounting — forwards — upwards — upwards — downwards — at the side for grounded parts — forwards — upwards upwards 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm	
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 — at the side 10 mm at the side 10 mm — at the side 10 mm — at the side 10 mm	
height 140 mm width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards 20 mm — upwards 10 mm — at the side 0 mm • for grounded parts 20 mm — upwards 20 mm — upwards 10 mm — at the side 10 mm — at the side 10 mm — downwards 10 mm	
height width 70 mm depth 152 mm required spacing	
height 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 • for grounded parts — forwards 10 mm — at the side 10 mm — upwards 10 mm — odwnwards 10 mm — at the side 10 mm — for live parts — for live parts — forwards 20 mm	
height 140 mm width 70 mm depth 152 mm required spacing 152 mm • with side-by-side mounting 20 mm — forwards 10 mm — upwards 10 mm • for grounded parts 0 mm • for grounded parts 20 mm — upwards 10 mm • at the side 10 mm — downwards 10 mm • for live parts 20 mm — forwards 20 mm — upwards 10 mm	
height 140 mm width 70 mm depth 152 mm required spacing 152 mm • with side-by-side mounting 20 mm — forwards 10 mm — upwards 10 mm — at the side 0 mm • for grounded parts 20 mm — upwards 10 mm — at the side 10 mm — downwards 10 mm • for live parts 20 mm — upwards 20 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm	
height 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 • for grounded parts — forwards 20 mm — upwards 10 mm — at the side 10 mm — at the side 10 mm — at the side 20 mm — upwards 10 mm • for live parts — forwards 20 mm • for wards 10 mm • for live parts — forwards 20 mm — upwards 10 mm — at the side 10 mm — downwards 10 mm — at the side 10 mm — downwards 10 mm — at the side 10 mm	
height width 70 mm depth 152 mm required spacing • with side-by-side mounting — forwards 20 mm — upwards 10 mm — downwards 10 mm • for grounded parts — forwards 20 mm • for grounded parts — at the side 0 mm • for grounded parts — at the side 10 mm — at the side 10 mm — at the side 10 mm • for live parts — forwards 20 mm — upwards 10 mm • for live parts — forwards 20 mm — downwards 10 mm • for live parts — forwards 20 mm — upwards 10 mm — downwards 10 mm — at the side 10 mm — downwards 10 mm — at the side 10 mm — downwards 10 mm — at the side 10 mm	

General Product Approval		EMC	
Certificates/ approvals			
safety-related switching OFF	Yes		
 safety-related switching on 	No		
suitability for use			
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front		
protection class IP on the front acc. to IEC 60529	IP20		
T1 value for proof test interval or service life acc. to IEC 61508	20 y		
product function positively driven operation acc. to IEC 60947-5-1	No		
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT		
with high demand rate acc. to SN 31920 What a standard control of the standard control of th	73 %		
with low demand rate acc. to SN 31920	40 %		
proportion of dangerous failures	40.04		
B10 value with high demand rate acc. to SN 31920	1 000 000		
product function mirror contact acc. to IEC 60947-4-1	Yes		
Safety related data			
for auxiliary contacts	20 14		
• for main contacts	10 2		
section			
AWG number as coded connectable conductor cross			
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)		
— finely stranded with core end processing	2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²)		
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)		
for auxiliary contacts			
finely stranded with core end processing type of connectable conductor cross-sections	0.5 2.5 IIIIII ⁻		
	0.5 2.5 mm ²		
contacts • solid or stranded	0.5 2.5 mm²		
connectable conductor cross-section for auxiliary			
finely stranded with core end processing	2.5 50 mm ²		
• stranded	6 70 mm ²		
• solid	2.5 16 mm²		
connectable conductor cross-section for main contacts			
at AWG cables for main contacts	2x (10 1/0), 1x (10 2)		
 finely stranded with core end processing 	2x (2.5 35 mm²), 1x (2.5 50 mm²)		
for main contacts			
type of connectable conductor cross-sections			
of magnet coil	Screw-type terminals		
 at contactor for auxiliary contacts 	Screw-type terminals		
•			

General Product Approval









<u>KC</u>





Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates		Marine / Shipping
Type Examination Certificate	UK Declaration of Conformity	Special Test Certificate	Type Test Certificates/Test Report	ABS

Marine / Shipping other











Railway

Vibration and Shock

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=3RT2045-1NF30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2045-1NF30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2045-1NF30

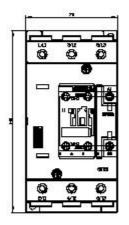
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

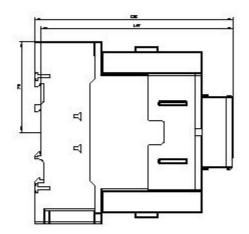
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2045-1NF30&lang=en

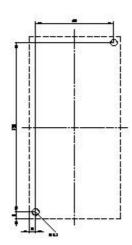
Characteristic: Tripping characteristics, I2t, Let-through current

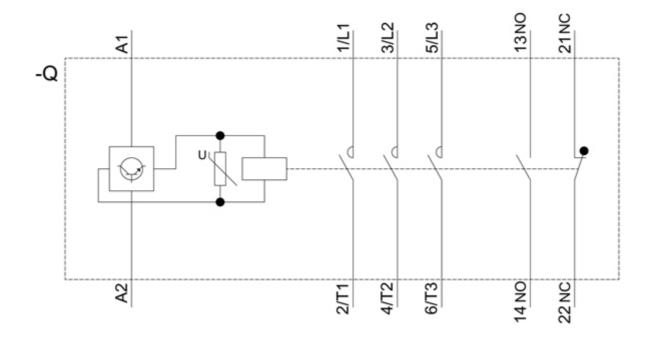
https://support.industry.siemens.com/cs/ww/en/ps/3RT2045-1NF30/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2045-1NF30&objecttype=14&gridview=view1









last modified: 7/2/2021 🖸