SIEMENS

Data sheet 3RT2016-2HB41



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 24 V DC, 0.7-1.25* Us, auxiliary contacts: 1 NO, spring-loaded terminal, size: S00, suitable for PLC outputs, not expandable with auxiliary switch

product brand name	SIRIUS
product designation	Coupling contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	No
power loss [W] for rated value of the current	
 at AC in hot operating state 	0.9 W
 at AC in hot operating state per pole 	0.3 W
without load current share typical	2.8 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
of main circuit rated value	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at DC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	30 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
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
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V

 at AC-3e rated value maximum 	690 V
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated value	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	22 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	20 A
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
 at AC-4 at 400 V rated value 	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	5.3 A
— up to 400 V for current peak value n=20 rated value	5.3 A
— up to 500 V for current peak value n=20 rated value	5.3 A
— up to 690 V for current peak value n=20 rated value	5 A
• at AC-6a	
 up to 230 V for current peak value n=30 rated value 	3.5 A
 up to 400 V for current peak value n=30 rated value 	3.5 A
 up to 500 V for current peak value n=30 rated value 	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated	4 mm²
operational current for approx. 200000 operating cycles at	
AC-4 • at 400 V rated value	4.1 A
at 690 V rated value	3.3 A
	0.071
operational current	
operational current • at 1 current path at DC-1	
• at 1 current path at DC-1	20 A
• at 1 current path at DC-1 — at 24 V rated value	20 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value	20 A
 at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value 	20 A 2.1 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value	20 A 2.1 A 0.8 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value	20 A 2.1 A 0.8 A 0.6 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value	20 A 2.1 A 0.8 A
at 1 current path at DC-1 at 24 V rated value at 60 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	20 A 2.1 A 0.8 A 0.6 A 0.6 A
 at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 24 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 60 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 110 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 60 V rated value at 220 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A
 at 1 current path at DC-1 — at 24 V rated value — at 60 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 60 V rated value — at 110 V rated value — at 120 V rated value — at 440 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A
 at 1 current path at DC-1 — at 24 V rated value — at 60 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 60 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 440 V rated value — at 600 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A
at 1 current path at DC-1 at 24 V rated value at 60 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 60 V rated value at 60 V rated value at 110 V rated value at 120 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value with 3 current paths in series at DC-1	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
 at 1 current path at DC-1 — at 24 V rated value — at 60 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 60 V rated value — at 110 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
at 1 current path at DC-1 at 24 V rated value at 60 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 60 V rated value at 110 V rated value at 220 V rated value at 24 V rated value at 440 V rated value at 440 V rated value 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 60 V rated value at 60 V rated value at 60 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value 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 220 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 24 V rated value at 10 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 220 V rated value at 600 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 220 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A
at 1 current path at DC-1 at 24 V rated value at 60 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 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 440 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 20 A 20 A
at 1 current path at DC-1 at 24 V rated value at 60 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 60 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 60 V rated value at 24 V rated value at 440 V rated value at 600 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 60 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 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 25 V rated value at 26 V rated value at 27 V rated value at 28 V rated value at 29 V rated value at 40 V rated value at 40 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 29 A 20 A 20 A 20 A 20 A 21 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 20 A 20 A 20 A 20 A 21 A
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 600 V rated value at 440 V rated value at 600 V rated value at 1 current path at DC-3 at DC-5 at 24 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 20 A 20 A 20 A 2
at 1 current path at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 60 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 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 25 V rated value at 26 V rated value at 27 V rated value at 28 V rated value at 29 V rated value at 40 V rated value at 40 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 29 A 20 A 20 A 20 A 20 A 21 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 20 A 20 A 20 A 20 A 21 A

	with 2 current paths in series at DC-3 at DC-5	00.4	
■ HI 10 V rated value 0.35 A ■ 24 V rated value 20 A ■ 16 V V rated value 20 A ■ 17 V v rated value 1.5 A ■ 18 V v rated value 0.2 A ■ 18 V v rated value 0.2 A ■ 18 V v rated value 0.2 A ■ 18 CO V rated value 0.2 A ■ 18 CO V rated value 2.2 kW ■ 18 CO V rated value 4 kW ■ 18 CO V rated value 5 S kW ■ 18 CO V rated value 4 kW ■ 18 CO V rated value 4 kW ■ 18 CO V rated value 4 kW ■ 18 CO V rated value 5 KW ■ 18 CO V rated value 5 KW ■ 18 CO V rated value 4 kW ■ 18 CO V rated value 2 kW ■ 18 SO V rated value 2 kW ■ 19 to 230 V for current pack value n=20 rated value 3 kVA ■ 19 to 230 V for current pack value n=20 rated value			
with 3 current paths in series at DC-3 at DC-5			
= at 24 V related value		0.35 A	
	-		
	— at 24 V rated value	20 A	
al 220 Y rated value	— at 60 V rated value	20 A	
	— at 110 V rated value	20 A	
	— at 220 V rated value	1.5 A	
at AC-3	— at 440 V rated value	0.2 A	
# alt AC-3	— at 600 V rated value	0.2 A	
- at 230 V rated value	operating power		
	• at AC-3		
- at 500 V rated value	— at 230 V rated value	2.2 kW	
	— at 400 V rated value	4 kW	
	— at 500 V rated value	4 kW	
	— at 690 V rated value	5.5 kW	
	• at AC-3e		
- at 590 V rated value - at 690 V rated value 5 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 2 kW • at 690 V rated value 2 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 4 kWA • up to 400 V for current peak value n=20 rated value 5.9 kWA operating apparent power at AC-6a • up to 500 V for current peak value n=20 rated value 4 kWA • up to 690 V for current peak value n=20 rated value 5.9 kWA operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 4 kWA operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value 4 kWA operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value 4 kWA operating to 500 V for current peak value n=30 rated value 4 kWA operating to 500 V for current peak value n=30 rated value 4 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current peak value n=30 rated value 5 kWA operating to 500 V for current maximum 500 V for current for current maximum 500 V for current for	— at 230 V rated value	2.2 kW	
operating power for approx. 200000 operating cycles at AC- 4	— at 400 V rated value	4 kW	
operating power for approx. 200000 operating cycles at AC-4 4	— at 500 V rated value	4 kW	
• at 400 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 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 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 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 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 • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 6 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 ze	— at 690 V rated value	5 kW	
• at 400 V rated value • at 690 V rated value • at 690 V rated value out 530 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 300 V for current peak value n=20 rated value • up to 200 V for current peak value n=30 rated value • up to 200 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 • 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 50 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 frequency • at DC • at AC-2 maximum • at AC-2 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-5 maximum • at AC-6 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 max			
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 590 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=20 rated value operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 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 short-time withstand current in cold operating state up to 40 °C limited to 15 s switching at zero current maximum limited to 55 s switching at zero current maximum limited to 50 s switching at zero current maximum limited to 30 s switching at zero current maximum		OLIM	
operating apparent power at AC-6a			
up to 30 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=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 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value thinted to 11 s switching at zero current maximum limited to 12 s switching at zero current maximum limited to 13 s switching at zero current maximum limited to 14 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 switching frequency limited to 60 switching frequency lat AC-1 maximum limited to 60 switching frequency lat AC-3 maximum limited to 60 switching frequency lat AC-4 maximum limited to 60 switching frequency lat AC-4 maximum limited to 60 switching frequency lat AC-5 maximum limited to 60 switching frequency lat AC-6 maximum limited to 60 switching frequency lat AC-6 maximum limited to 60 switching frequency lat AC-6 maximum limited frequency lat AC-6 maxi		2.5 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 • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • limitled to 1 s switching at zero current maximum • limitled to 5 s witching at zero current maximum • limitled to 5 s witching at zero current maximum • limitled to 5 s witching at zero current maximum • limitled to 80 s switching at zero curr		2114	
• up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 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 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 frequency • at DC 10 000 1/h operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum • at AC-5 maximum			
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 • 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 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 • loo 00 switching frequency • at DC • at DC • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximum • at AC-	·		
operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 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 1 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 30 s switching at zero current maximum • limited to 60 s switching at zer			
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 sup to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C ilimited 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 30 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current	·	5.9 KVA	
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 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 frequency lat DC operating frequency lat AC-1 maximum lat AC-2 maximum lat AC-3 maximum lat AC-3 maximum lat AC-3 maximum lat AC-4 maximum l		4011/4	
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 ilimited 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 simited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum simited to 60 s switching	·		
short-time withstand current in cold operating state up to 40 °C ilimited to 1 s switching at zero current maximum ilimited to 5 s switching at zero current maximum ilimited to 10 s switching at zero current maximum ilimited to 10 s switching at zero current maximum ilimited to 30 s switching at zero current maximum ilimited to 30 s switching at zero current maximum ilimited to 30 s switching at zero current maximum ilimited to 60 s switching at zero current m			
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 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 • loo 00 1/h • at DC • at DC • at AC-1 rated value 10 000 1/h • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-4 maximum • control circuit/ Control type of voltage of the control supply voltage • rated value • rated value • rated value • full-scale value 0.7 • full-scale value 1.25 closing power of magnet coil at DC 2.8 W			
Ilimited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value		4 KVA	
Ilimited to 5 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000			
Ilimited to 5 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000 1/h limited to 60 s switching at zero current maximum 10 000	••	155 A: Use minimum cross-section acc. to AC-1 rated value	
Fimited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value	-		
Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ino-load switching frequency Ino-load switching at zero current maximum Ino-load switching frequency Ino-load switching at zero current maximum Ino-load switching at zero current maximum Ino-load switching at zero current swimum Ino-load switching frequency Ino-load switching at zero current swimum	<u> </u>		
Ilimited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency ■ at DC 10 000 1/h operating frequency ■ at AC-1 maximum 1 000 1/h ■ at AC-2 maximum 750 1/h ■ at AC-3 maximum 750 1/h ■ at AC-3e maximum 750 1/h ■ at AC-4 maximum 750 1/h 250 1/h Control circuit/ Control type of voltage of the control supply voltage DC control supply voltage at DC ■ rated value 1 24 V operating range factor control supply voltage rated value of magnet coil at DC ■ initial value ■ initial value ■ full-scale value 1.25 closing power of magnet coil at DC 2.8 W	· ·		
no-load switching frequency at DC operating frequency at AC-1 maximum 1 000 1/h at AC-2 maximum 750 1/h at AC-3 maximum 750 1/h at AC-3e maximum 750 1/h at AC-4 maximum 750 1/h at AC-4 maximum 750 1/h be at AC-4 maximum 750 1/h Control circuit/ Control type of voltage of the control supply voltage type of voltage at DC rated value 24 V operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value 1.25 closing power of magnet coil at DC 2.8 W			
at DC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3 maximum at AC-3 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum by of voltage of the control supply voltage control supply voltage at DC arated value perated value at AC-4 maximum control supply voltage at DC arated value arate	·	, , , , , , , , , , , , , , , , , , , ,	
e at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage type of voltage at DC • rated value • rated value • rated value • initial value • initial value • full-scale value 1.25 closing power of magnet coil at DC 2.8 W		10 000 1/h	
 at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3e maximum at AC-4 maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage or rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value 0.7 full-scale value cosing power of magnet coil at DC 2.8 W 			
 at AC-2 maximum at AC-3 maximum at AC-3 e maximum at AC-4 maximum 250 1/h control circuit/ Control type of voltage of the control supply voltage o rated value operating range factor control supply voltage rated value of magnet coil at DC initial value of ull-scale value 1.25 closing power of magnet coil at DC 		1 000 1/h	
 at AC-3 maximum at AC-3e maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage orated value operating range factor control supply voltage rated value of magnet coil at DC initial value of tull-scale value 1.25 closing power of magnet coil at DC 28 W 750 1/h DC 0 0 0 			
 at AC-3e maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value 1.25 closing power of magnet coil at DC 2.8 W 			
at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC 250 1/h Control circuit/ Control DC 24 V 07 07 1.25 2.8 W			
type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value of tull-scale value closing power of magnet coil at DC total control supply voltage rated value of magnet coil at DC 24 V 0.7 1.25 closing power of magnet coil at DC 2.8 W			
type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC DC 24 V 0.7 1.25 closing power of magnet coil at DC 2.8 W	Control circuit/ Control		
control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC 24 V 0.7 1.25 2.8 W		DC	
 rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC 24 V 0.7 1.25 2.8 W 			
operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC 2.8 W		24 V	
● full-scale value 1.25 closing power of magnet coil at DC 2.8 W	operating range factor control supply voltage rated value of		
closing power of magnet coil at DC 2.8 W	•	0.7	
closing power of magnet coil at DC 2.8 W		1.25	
•	closing power of magnet coil at DC	2.8 W	
		2.8 W	
closing delay			

- A DC	25 420 mg		
• at DC	25 130 ms		
opening delay			
• at DC	7 20 ms		
arcing time	10 15 ms		
control version of the switch operating mechanism	Standard A1 - A2		
Auxiliary circuit	1		
number of NO contacts for auxiliary contacts instantaneous contact			
operational current at AC-12 maximum	10 A		
operational current at AC-15			
at 230 V rated value	10 A		
at 400 V rated value	3 A		
at 500 V rated value	2 A		
at 690 V rated value	1 A		
operational current at DC-12			
• at 24 V rated value	10 A		
at 48 V rated value	6 A		
at 60 V rated value	6 A		
• at 110 V rated value	3 A		
• at 125 V rated value	2 A		
• at 220 V rated value	1 A		
• at 600 V rated value	0.15 A		
operational current at DC-13			
• at 24 V rated value	10 A		
• at 48 V rated value	2 A		
at 60 V rated value	2 A		
• at 110 V rated value	1 A		
• at 125 V rated value	0.9 A		
• at 220 V rated value	0.3 A		
at 600 V rated value	0.1 A		
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)		
UL/CSA ratings			
full-load current (FLA) for 3-phase AC motor			
at 480 V rated value	7.6 A		
at 600 V rated value	9 A		
yielded mechanical performance [hp]			
 for single-phase AC motor 			
— at 110/120 V rated value	0.33 hp		
— at 230 V rated value	1 hp		
• for 3-phase AC motor			
— at 200/208 V rated value	2 hp		
— at 220/230 V rated value	3 hp		
— at 460/480 V rated value	5 hp		
— at 575/600 V rated value	7.5 hp		
contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection			
design of the fuse link			
for short-circuit protection of the main circuit	-O. 054 (000)/ 400I/A) -NA. 004 (000)/ 400I/A) -D000 074 (477) 400I/A)		
— with type of coordination 1 required	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)		
— with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)		
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)		
Installation/ mounting/ dimensions			
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface		
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715		
side-by-side mounting	Yes		
height	70 mm		
width	45 mm		
	70		
depth	73 mm		
depth required spacing • with side-by-side mounting	73 mm		

— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	spring-loaded terminals
for auxiliary and control circuit	
at contactor for auxiliary contacts	spring-loaded terminals
•	Spring type terminals
of magnet coil type of connectable conductor cross sections for main contacts.	Spring-type terminals
type of connectable conductor cross-sections for main contacts	2v (0 F 4 mm²)
• solid	2x (0.5 4 mm²)
solid or stranded finally stranded with core and precessing.	2x (0,5 4 mm²)
finely stranded with core end processing	2x (0.5 2.5 mm²)
finely stranded without core end processing	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts	0.5 4 2
• solid	0.5 4 mm²
• stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
finely stranded without core end processing	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
finely stranded without core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 12)
AWG number as coded connectable conductor cross	
section	20 42
• for main contacts	20 12
• for auxiliary contacts	20 12
Safety related data	
product function	N.
mirror contact according to IEC 60947-4-1	No
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	40.07
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 a
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
safety-related switching OFF	Yes
Certificates/ approvals	
General Product Approval	





Confirmation



<u>KC</u>



EMO	Functional	Deelenstien of A
EMC	Safety/Safety of Ma-	Declaration of 0
	chinery	

Conformity **Test Certificates**



Type Examination Cer**tificate**





Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation



Vibration and Shock

Transport Information

Environmental Con**firmations**

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2016-2HB41

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-2HB41

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

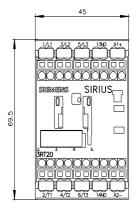
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-2HB41&lang=en

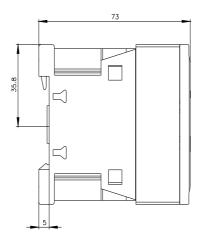
Characteristic: Tripping characteristics, I2t, Let-through current

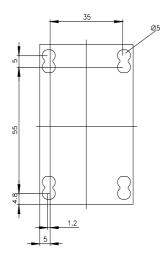
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2HB41/char

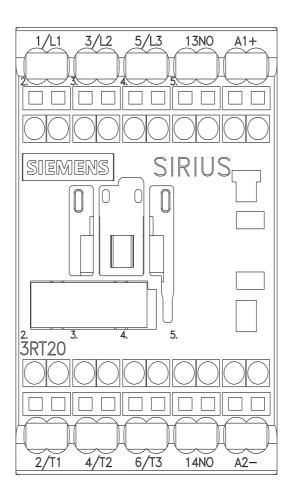
Further characteristics (e.g. electrical endurance, switching frequency)

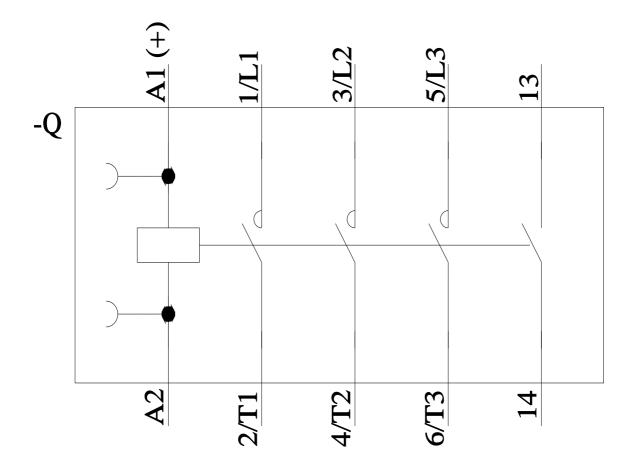
3RT2016-2HB41&objecttype=14&gridview=view1











last modified: 2/10/2023 🖸