SIEMENS

Data sheet 3RT2016-2WB42



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 24 V DC, 0.85-1.85* Us, with varistor plugged on, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00, 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	1.6 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
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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 220 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
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 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
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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
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type of voltage of the control supply voltage control supply voltage at DC		
	with 2 current paths in series at DC-3 at DC-5	
• with 3 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 60 V rated value — at 120 V rated va	— at 24 V rated value	20 A
- with 3 current paths in series at DC-3 at DC-5	— at 60 V rated value	5 A
= at 24 V relate value = at 60 V rated value = at 10 V rated value = at 220 V rated value = at 420 V rated value = at 420 V rated value = at 420 V rated value = at 600 V rated value = at 420 V rated value = at 420 V rated value = at 400 V rated value = at 400 V rated value = at 500 V rated value = at 600 V rated value =	— at 110 V rated value	0.35 A
= art 90 V reinder value	 with 3 current paths in series at DC-3 at DC-5 	
	— at 24 V rated value	20 A
	— at 60 V rated value	20 A
	— at 110 V rated value	20 A
	— at 220 V rated value	1.5 A
Poperating power	— at 440 V rated value	0.2 A
- at 230 V rated value	— at 600 V rated value	0.2 A
	operating power	
- alt 400 V rated value	• at AC-3	
at 500 V rated value at 690 V rated value at 690 V rated value at 230 V rated value at 230 V rated value at 230 V rated value at 500 V rated value at 690 V rated value 20 rated	— at 230 V rated value	2.2 kW
	— at 400 V rated value	4 kW
- at 230 V rated value	— at 500 V rated value	4 kW
	— at 690 V rated value	5.5 kW
		2.2 kW
- at 500 V rated value - at 690 V rated value - 2 kW - 2.5 k		
operating power for approx. 200000 operating cycles at AC- 4		
eat 400 V rated value 2 kW 2.5		
at 400 V rated value		
operating apparent power at AC-6a oup to 230 V for current peak value n=20 rated value oup to 400 V for current peak value n=20 rated value oup to 690 V for current peak value n=20 rated value oup to 690 V for current peak value n=20 rated value oup to 500 V for current peak value n=20 rated value oup to 500 V for current peak value n=20 rated value oup to 400 V for current peak value n=30 rated value oup to 400 V for current peak value n=30 rated value oup to 400 V for current peak value n=30 rated value oup to 400 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 690 V for current peak value n=30 rated value oup to 690 V for current maximum oul imited to 1 s switching at zero current maximum oul imited to 1 s switching at zero current maximum oul imited to 1 s switching at zero current maximum oul imited to 30 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 s switching at zero current maximum oul imited to 60 switching frequency out Color out 60 switching frequency out C		
operating apparent power at AC-6a • up to 290 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 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • limited to 10 s switching at zero current maximum • limited to 10 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 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 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum • limited to 60 switching at zero current maximum •	at 400 V rated value	2 kW
up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=30 rated value up to 10 230 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 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 elimited to 1 s switching at zero current maximum elimited to 5 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 50 s switching at zero current maximum elimited to 60 s switching at zero current maximum elimited to 60 s switching at zero current maximum elimited to 60 s switching at zero current maximum elimited to 60 s switching frequency eat DC operating frequency eat DC operating frequency eat AC-3 maximum eat AC-4 maximum eat AC-3 maximum eat AC-3 maximum eat AC-4 maximum eat AC-	at 690 V rated value	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 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • 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 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • limited to 80 s switching at zero current maximum • li	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 up to 230 V for current peak value n=30 rated value up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 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 value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 V for current peak value n=30 rated value value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 500 S switching at zero current maximum value for 600 S switching at zero current maximum value for 600 S switching at zero current maximum value for 600 S switching at zero current maximum value for 600 S switching at zero current maximum value for 600 S switching at zero current maximum value for 600 S switching at zero current maximum value f	• up to 230 V for current peak value n=20 rated value	2 kVA
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 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 • 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 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 • 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-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 maximum	• up to 400 V for current peak value n=20 rated value	3.6 kVA
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 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 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero	• up to 500 V for current peak value n=20 rated value	4.6 kVA
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 4 kVA short-time withstand current in cold operating state up to 40 °C ilimited to 1 s switching at zero current maximum ilimited to 1 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 60 s switching at zero current maximum shimted to	• up to 690 V for current peak value n=20 rated value	5.9 kVA
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 ilimited 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 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 frequency lat DC loudout I/h 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 lat AC-	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 limited to 1 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 30 s switching at zero current maximum limited to 60 s switching at	• up to 230 V for current peak value n=30 rated value	1.3 kVA
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 50 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching a	• up to 400 V for current peak value n=30 rated value	2.4 kVA
• 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 • lood a switching frequency • at DC 10 000 1/h operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 250 1/h • at AC-3 maximum • at AC-4 maximum 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	•	3.1 kVA
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 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 55 A; Use minimum cross-section acc. to AC-1 rated value 10 000 1/h • at DC • at DC 10 000 1/h • at AC-1 maximum 1000 1/h • at AC-2 maximum 750 1/h • at AC-3 maximum 250 1/h • at AC-3 maximum 250 1/h • at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage • rated value • rated value • initial value • initial value • full-scale value 1.85 design of the surge suppressor closing power of magnet coil at DC 1.6 W		4 kVA
## Imited to 1 s switching at zero current maximum Ilmited to 5 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 30 s switching at zero current maximum Ilmited to 30 s switching at zero current maximum Ilmited to 60 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s switching at zero current maximum Ilmited to 10 s s		
Ilimited to 5 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 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Inoload switching frequency Inoload switching frequency Ilimited to 60 s switching at zero current maximum Inoload switching frequency Ilimited to 60 s switching at zero current maximum Inoload switching frequency Inoload switching at zero current maximum Inoload switching a		
Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ino-load switching frequency Inoload switching frequ	 limited to 1 s switching at zero current maximum 	155 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 Ilimited to 60 s switching at zero current maximum Ino-load switching frequency Ino-load switching frequency Ino-load switching frequency Individual at DC Ind	 limited to 5 s switching at zero current maximum 	111 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 60 s switching at zero current maximum To-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-3 maximum 750 1/h at AC-4 maximum 750 1/h at AC-4 maximum 750 1/h bat AC-4 maximum 750 1/h 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 0.85 full-scale value 1.85 design of the surge suppressor closing power of magnet coil at DC 10 000 1/h 10 00 1	 limited to 10 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency • at DC operating frequency • at AC-1 maximum • at AC-2 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 • at AC-4 maximum • 250 1/h Control circuit/ Control type of voltage of the control supply voltage • rated value • rated value • rated value • initial value • initial value • full-scale value design of the surge suppressor closing power of magnet coil at DC 10 000 1/h 10 0	 limited to 30 s switching at zero current maximum 	66 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 at AC-3 maximum at AC-3e maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage rated value rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value design of the surge suppressor with varistor closing power of magnet coil at DC 	 limited to 60 s switching at zero current maximum 	55 A; Use minimum cross-section acc. to AC-1 rated value
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 • at AC-4 maximum Control circuit/ Control type of voltage of the control supply voltage • rated value • rated value • rated value • initial value • initial value • full-scale value • full-scale value closing power of magnet coil at DC • independent of the surge suppressor closing power of magnet coil at DC 1.6 W	no-load switching frequency	
 at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3 e maximum at AC-4 maximum at AC-4 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 orated value operating range factor control supply voltage rated value of magnet coil at DC initial value of tull-scale value design of the surge suppressor closing power of magnet coil at DC 1.6 W 	• at DC	10 000 1/h
 at AC-2 maximum at AC-3 maximum at AC-3e maximum 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 0.85 design of the surge suppressor closing power of magnet coil at DC 1.6 W 	operating frequency	
 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 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 design of the surge suppressor closing power of magnet coil at DC 1.6 W	• at AC-1 maximum	1 000 1/h
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 arated value 24 V operating range factor control supply voltage rated value of magnet coil at DC a initial value b full-scale value closing power of magnet coil at DC 1.6 W	• at AC-2 maximum	750 1/h
at AC-4 maximum 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 design of the surge suppressor closing power of magnet coil at DC 1.6 W	• at AC-3 maximum	750 1/h
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 design of the surge suppressor closing power of magnet coil at DC 1.6 W	• at AC-3e maximum	750 1/h
type of voltage of the control supply voltage control supply voltage at DC	• at AC-4 maximum	250 1/h
type of voltage of the control supply voltage control supply voltage at DC	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 design of the surge suppressor closing power of magnet coil at DC 24 V 0.85 1.85 with varistor		DC
operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value design of the surge suppressor closing power of magnet coil at DC 0.85 1.85 with varistor		24 V
● full-scale value 1.85 design of the surge suppressor with varistor closing power of magnet coil at DC 1.6 W		
design of the surge suppressor with varistor closing power of magnet coil at DC 1.6 W	• initial value	0.85
closing power of magnet coil at DC 1.6 W	• full-scale value	1.85
closing power of magnet coil at DC 1.6 W	design of the surge suppressor	with varistor
• • • • • • • • • • • • • • • • • • • •		1.6 W
noiding power of magnet coil at DC 1.6 W	holding power of magnet coil at DC	1.6 W

closing delay	
• at DC	25 120 ms
opening delay	
• at DC	5 20 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
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	40.4
at 24 V rated value	10 A
at 48 V rated value at 60 V rated value	6 A
at 60 V rated value at 110 V rated value	6 A
at 110 V rated value at 125 V rated value	3 A 2 A
at 125 V rated value at 220 V rated value	2 A 1 A
 at 220 V rated value at 600 V rated value 	1 A 0.15 A
operational current at DC-13	0.10 A
at 24 V rated value	10 A
at 48 V rated value 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	. ideally contouring per roo minion (1. 1, 1 min)
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	
 — 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
depth	121 mm
required spacing	

W	
with side-by-side mounting	40
— 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 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 4 mm²)
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)
connectable conductor cross-section for main contacts	
• 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	ZA (20 12)
section	
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
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	20 a
61508	
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>



Functional EMC Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Cer**tificate**





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

Type Test Certificates/Test Report

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=3RT2016-2WB42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-2WB42

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

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

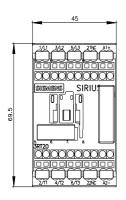
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-2WB42&lang=en

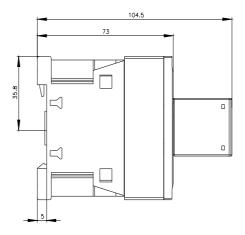
Characteristic: Tripping characteristics, I2t, Let-through current

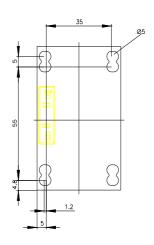
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2WB42/char

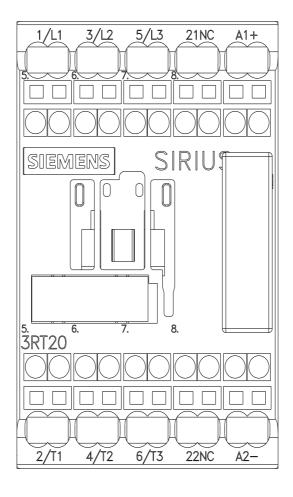
Further characteristics (e.g. electrical endurance, switching frequency)

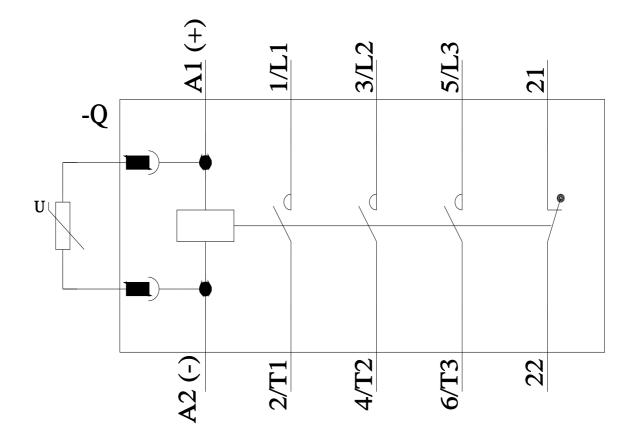
3RT2016-2WB42&objecttype=14&gridview=view1











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