SIEMENS

Data sheet

3RT2017-1BA41



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 12 V DC, auxiliary contacts: 1 NO, screw terminal, size: S00

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
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 	1.5 W
 at AC in hot operating state per pole 	0.5 W
 without load current share typical 	4 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	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
● at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	30 000 000
 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 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	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated	20 A
value	
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
● at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 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	9.9 A
● at AC-6a	
 — up to 230 V for current peak value n=20 rated value 	7.2 A
 — up to 400 V for current peak value n=20 rated value 	7.2 A
 — up to 500 V for current peak value n=20 rated value 	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
● at AC-6a	
 — up to 230 V for current peak value n=30 rated value 	4.8 A
 — up to 400 V for current peak value n=30 rated value 	4.8 A
 — up to 500 V for current peak value n=30 rated value 	4.8 A
 — up to 690 V for current peak value n=30 rated value 	4.8 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm ²
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
operational current	
 at 1 current path at DC-1 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
 with 3 current paths in series at DC-1 	
— 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	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
• at 1 current path at DC-3 at DC-5	

	— at 24 V rated value	20 A
••••••••••••••••••••••••••••••••••••	— at 60 V rated value	0.5 A
- at 20 V rated value 20 A - at 10 V rated value 0.36 A - at 10 V rated value 20 A - at 20 V rated value 5.5 kW - at 20 V rated value 2.5 kW - at 400 V rated value 2.5 kW - at 400 V rated value 2.6 kW - at 400 V rated value 2.8 kW - at 400 V rated value 2.8 kW - at 400 V rated value 2.8 kW - at 600 V rated value 2.8 kW - at 600 V for cure	— at 110 V rated value	0.15 A
	 with 2 current paths in series at DC-3 at DC-5 	
 	— at 24 V rated value	20 A
• with 3 current path is series at DC-3 at DC-5- at 24 V rated value20 A- at 260 V rated value20 A- at 110 V rated value20 A- at 240 V rated value20 A- at 240 V rated value0.2 A- at 240 V rated value5.5 kW- at 250 V rated value5.5 kW- at 250 V rated value5.5 kW- at 250 V rated value5.5 kW- at 260 V rated value5.5 kW- at 260 V rated value5.5 kW- at 270 V rated value5.5 kW- at 280 V rated value5.5 kW- at 280 V rated value5.5 kW- at 280 V rated value2.5 kW- at 280 V rated value2.5 kW- at 280 V rated value2.8 kW- at 280 V rated value3.8 kW <td>— at 60 V rated value</td> <td>5 A</td>	— at 60 V rated value	5 A
	— at 110 V rated value	0.35 A
	 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
operating power 5.5 kW • at AC-2 at 400 V rated value 5.5 kW • at AC-3	— at 440 V rated value	0.2 A
• et AC-2 at 400 V rated value 5.5 kW • at AC-3 3 kW - at 430 V rated value 5.5 kW - at 600 V rated value 2.5 kW - at 600 V rated value 2.5 kW - at 600 V rated value 2.5 kW - up to 500 V for current pack value n=20 rated value 2.8 kVA - up to 500 V for current pack value n=20 rated value 6.2 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value	— at 600 V rated value	0.2 A
• et AC-2 at 400 V rated value 5.5 kW • at AC-3 3 kW - at 430 V rated value 5.5 kW - at 600 V rated value 2.5 kW - at 600 V rated value 2.5 kW - at 600 V rated value 2.5 kW - up to 500 V for current pack value n=20 rated value 2.8 kVA - up to 500 V for current pack value n=20 rated value 6.2 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value n=30 rated value 5.7 kVA - up to 500 V for current pack value	operating power	
erit AC-3 - at 230 V rated value - at 230 V rated value - at 230 V rated value - at 500 V rated value - 55 KW - at 500 V rated value - 55 KW - at 230 V rated value - 55 KW - at 230 V rated value - at 250 V rated value - at 400 V rated value - at 600 V rated value - 25 KW - operating power for approx. 20000 operating cycles at AC-40 - up to 500 V for current peak value n=20 rated value - 25 KW - operating approxent power at AC-50 - up to 500 V for current peak value n=20 rated value - 20 X/A - up to 500 V for current peak value n=20 rated value - 20 X/A - up to 500 V for current peak value n=30 rated value - 10 KVA - up to 500 V for current peak value n=30 rated value - 10 KVA - up to 500 V for current peak value n=30 rated value - 10 KVA - up to 500 V for current peak value n=30 rated value		5.5 kW
		3 kW
• at AC-3e 3 kW - at 230 V rated value 3 kW - at 400 V rated value 5.5 kW - at 690 V rated value 5.5 kW - at 690 V rated value 5.6 kW - at 400 V rated value 5.6 kW - at 400 V rated value 2.6 kW • at 400 V rated value 2.5 kW • at 400 V rated value 2.5 kW • at 600 V rated value 2.5 kW • operating paperent power at AC-68 2.8 kVA • up to 500 V for current peak value n=20 rated value 2.8 kVA • up to 500 V for current peak value n=20 rated value 8.2 kVA • up to 500 V for current peak value n=20 rated value 8.2 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current maximum 20 A; Use minimum cross-section acc. to AC-1 rated value • initied to 1 s switching at zero current maximum 19.4 kVA • initied to 1 9 s switching at zero current maximum 50 A/L use minimum cross-section acc. to AC-1 rated value • limited to 1 9 s switching at zero current maximum 10.000 1/h • at AC-1 maximum 10000 1/h		
		3 kW
operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 2 KW • at 690 V rated value 2.5 kW operating apparent power at AC-6a 2.8 kVA • up to 230 V for current peak value n=20 rated value 2.8 kVA • up to 500 V for current peak value n=20 rated value 5.2 kVA • up to 500 V for current peak value n=20 rated value 8.2 kVA • up to 500 V for current peak value n=20 rated value 8.2 kVA • up to 500 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 400 °C 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 102 A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maximum 1A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maximum 1A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero		
A the first of the first o		5.5 KW
• at 660 V rated value 2.5 kW operating apparent power at AC-6a 2.8 kVA • up to 230 V for current peak value n=20 rated value 4.9 kVA • up to 500 V for current peak value n=20 rated value 6.2 kVA • up to 500 V for current peak value n=20 rated value 8 kVA operating apparent power at AC-6a 8 kVA • up to 500 V for current peak value n=30 rated value 8 kVA operating apparent power at AC-6a 1.9 kVA • up to 500 V for current peak value n=30 rated value 3.8 kVA • up to 500 V for current peak value n=30 rated value 3.8 kVA • up to 500 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA short-time withstand current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 124 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 14 A; Use minimum cross-section acc. to AC-1 rated value		
operating apparent power at AC-6a 2.8 kVA • up to 230 V for current peak value n=20 rated value 2.8 kVA • up to 500 V for current peak value n=20 rated value 4.9 kVA • up to 690 V for current peak value n=20 rated value 8 kVA • up to 690 V for current peak value n=20 rated value 8 kVA operating apparent power at AC-6a 1.9 kVA • up to 200 V for current peak value n=30 rated value 3.8 kVA • up to 500 V for current peak value n=30 rated value 3.8 kVA • up to 500 V for current peak value n=30 rated value 3.8 kVA • up to 500 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40° C 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s witching at zero current maximum 123 A; Use minimum cross-section acc. to AC-1 rated value • limited to 5 s witching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s witching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • at DC 10 000 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-3 maxi	• at 400 V rated value	2 kW
• up to 230 V for current peak value n=20 rated value 4.9 kVA 4.9 kVA 4.9 kVA up to 500 V for current peak value n=20 rated value 4.9 kVA 0perating apparent power at AC-6a up to 500 V for current peak value n=30 rated value 4.9 kVA 0perating apparent power at AC-6a up to 500 V for current peak value n=30 rated value 4.1 kVA 4.1 kVA 4.1 kVA 4.1 kVA 4.1 kVA 4.1 kVA 5.7 kVA	• at 690 V rated value	2.5 kW
• up to 400 V for current peak value n=20 rated value 4.9 kVA • up to 500 V for current peak value n=20 rated value 6.2 kVA • up to 690 V for current peak value n=20 rated value 8 kVA operating apparent power at AC-6a 1.9 kVA • up to 500 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 600 V for current peak value n=30 rated value 5.7 kVA • up to 600 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 50 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • at DC 10 000 1/h • at DC 10 000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 250 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 8 kVA operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value 1.9 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 690 V for current peak value n=30 rated value 4.1 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • 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 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 • at DC • at DC • at AC-1 maximum 1000 1/h • at AC-3 maximum • at AC-4 maximum	 up to 230 V for current peak value n=20 rated value 	2.8 kVA
• up to 690 V for current peak value n=20 rated value 8 kVA operating apparent power at AC-6a 1.9 kVA • up to 230 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA short-time withstand current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • at DC 10 000 1/h operating frequency • at AC-1 maximum • at AC-1 maximum 1000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 250 1/h • at AC-4 maximum 250 1/h	 up to 400 V for current peak value n=20 rated value 	4.9 kVA
• up to 680 V for current peak value n=20 rated value 8 kVA operating apparent power at AC-6a 1.9 kVA • up to 230 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 3.3 kVA • up to 680 V for current peak value n=30 rated value 3.1 kVA • up to 680 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA short-time withstand current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 10 000 1/h • at DC 10 000 1/h • at AC-1 maximum 1000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 250 1/h • at AC-4 maximum 250 1/h • at AC-4 maximu	• up to 500 V for current peak value n=20 rated value	6.2 kVA
• up to 230 V for current peak value n=30 rated value 1.9 kVA • up to 400 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 204 ; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • at AC-1 maximum 10000 1/h • at AC-1 maximum 10000 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 250 1/h Control circuit/ Control DC		8 kVA
• up to 230 V for current peak value n=30 rated value 1.9 kVA • up to 400 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 204 ; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • at AC-1 maximum 10000 1/h • at AC-1 maximum 10000 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 250 1/h Control circuit/ Control DC	operating apparent power at AC-6a	
• up to 400 V for current peak value n=30 rated value 3.3 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 5.7 kVA • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maximum 74 Y Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • at DC 10 000 1/h operating frequency 10 000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 250 1/h Control circuit/ C		1.9 kVA
• up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 690 V for current peak value n=30 rated value 5.7 kVA short-time withstand current in cold operating state up to 40 °C 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 123 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching frequency 0 000 1/h • at DC 10 000 1/h • at AC-1 maximum 1000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 250 1/h • control circuit/ Control Up type of voltage of the control supply voltage DC control supply voltage at DC 12 V • control supply voltage rated value of magnet coil at DC 12 V </td <td></td> <td>3.3 kVA</td>		3.3 kVA
• up to 690 V for current peak value n=30 rated value5.7 kVAshort-time withstand current in cold operating state up to 40 °C200 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum200 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum96 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum61 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/hoperating frequency10000 1/h• at AC-1 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• control supply voltage at DCDC• crated value12 Voperating range factor control supply voltage rated value of magnet coil at DC12 V		4.1 kVA
short-time withstand current in cold operating state up to 40 °C 200 A; Use minimum cross-section acc. to AC-1 rated value e limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value e limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value e limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value e limited to 30 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value e limited to 60 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 61 A; Use minimum cross-section acc. to AC-1 rated value e at DC 10 000 1/h operating frequency 10 000 1/h e at AC-1 maximum 1 000 1/h e at AC-3 maximum 750 1/h e at AC-3 maximum 750 1/h e at AC-4 maximum 250 1/h Control circuit/ Control Use on the control supply voltage type of voltage of the control supply voltage rated value 12 V operating range factor control supply voltage rated value 12 V operating range factor control supply voltage rated value 12 V		5.7 kVA
40 °C e limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value e limited to 1 s switching at zero current maximum 123 A; Use minimum cross-section acc. to AC-1 rated value e limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value e limited to 30 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value e limited to 60 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value e limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 61 A; Use minimum cross-section acc. to AC-1 rated value e at DC 10 000 1/h operating frequency 10 000 1/h e at AC-1 maximum 1 000 1/h e at AC-2 maximum 750 1/h e at AC-3 maximum 750 1/h e at AC-4 maximum 250 1/h Control circuit/ Control Use minimum cross-section acc. to AC-1 rated value type of voltage of the control supply voltage DC control supply voltage at DC 1000 1/h e rated value 12 V	· · ·	
 limited to 5 s switching at zero current maximum 123 A; Use minimum cross-section acc. to AC-1 rated value limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum for 0000 1/h limited to 0000 1/h<td></td><td></td>		
 limited to 10 s switching at zero current maximum 96 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 61 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 at AC-2 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 bt AC-4 maximum bt AC-4 maximum bt AC-4 maximum bt AC-4 maximum control supply voltage at DC control supply voltage at DC control supply voltage at DC at ADC-4 maximu bt AC-4 maximum bt AC-4 maximu	 limited to 1 s switching at zero current maximum 	200 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 10 000 1/h • at DC 10 000 1/h operating frequency 1 000 1/h • 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 250 1/h Control circuit/ Control DC type of voltage of the control supply voltage DC • rated value 12 V operating range factor control supply voltage rated value of magnet coil at DC 12 V	 limited to 5 s switching at zero current maximum 	123 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 10 000 1/h • 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-3 maximum 250 1/h • at AC-4 maximum 10C • at AC-4 maximum 10C • at AC-4 maximum 12 V operating range factor control supply voltage rated value of magnet coil at DC 12 V	 limited to 10 s switching at zero current maximum 	96 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency 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-4 maximum 250 1/h • at AC-4 maximum 10 C • orted value of the control supply voltage DC • rated value 12 V operating range factor control supply voltage rated value of magnet coil at DC In 2 V	 limited to 30 s switching at zero current maximum 	74 A; Use minimum cross-section acc. to AC-1 rated value
• at DC10 000 1/hoperating frequency1• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximumDC• control circuit/ Control• rated valueDC• rated value12 V	 limited to 60 s switching at zero current maximum 	61 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency1000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value12 V• perating range factor control supply voltage rated value of magnet coil at DC12 V	no-load switching frequency	
• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximumDCControl circuit/ ControlDCcontrol supply voltage at DC12 V• rated value12 V	• at DC	10 000 1/h
• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlControl circuit/ Controltype of voltage of the control supply voltageDCcontrol supply voltage at DC12 V• rated value12 V	operating frequency	
• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value12 Voperating range factor control supply voltage rated value of magnet coil at DCImagnet coil at DC	• at AC-1 maximum	1 000 1/h
• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDCcontrol supply voltage at DC12 V• rated value12 V	• at AC-2 maximum	750 1/h
• at AC-4 maximum 250 1/h Control circuit/ Control DC type of voltage of the control supply voltage DC control supply voltage at DC 12 V operating range factor control supply voltage rated value of magnet coil at DC Image: Control supply voltage rated value of magnet coil at DC	• at AC-3 maximum	750 1/h
Control circuit/ Control type of voltage of the control supply voltage DC control supply voltage at DC 12 V • rated value 12 V operating range factor control supply voltage rated value of magnet coil at DC 12 V	• at AC-3e maximum	750 1/h
type of voltage of the control supply voltage DC control supply voltage at DC 12 V • rated value 12 V	● at AC-4 maximum	250 1/h
type of voltage of the control supply voltage DC control supply voltage at DC 12 V • rated value 12 V	Control circuit/ Control	
control supply voltage at DC • rated value 12 V operating range factor control supply voltage rated value of magnet coil at DC 12 V		DC
rated value operating range factor control supply voltage rated value of magnet coil at DC		
operating range factor control supply voltage rated value of magnet coil at DC		12 V
magnet coil at DC		
initial value 0.8		
	● initial value	0.8

full-scale value	1.1		
closing power of magnet coil at DC	4 W		
holding power of magnet coil at DC	4 W		
closing delay			
• at DC	30 100 ms		
opening delay			
at DC	7 13 ms		
arcing time	10 15 ms		
control version of the switch operating mechanism	Standard A1 - A2		
Auxiliary circuit			
number of NO contacts for auxiliary contacts instantaneous	1		
contact operational current at AC-12 maximum	10 A		
operational current at AC-12 maximum	10 A		
at 230 V rated value	10 A		
at 250 V rated value at 400 V rated value	3 A		
• at 500 V rated value	2 A		
• at 690 V rated value	1A		
	TA		
operational current at DC-12	10.4		
at 24 V rated value at 48 V rated value	10 A 6 A		
at 48 V rated value at 60 V rated value			
	6 A 3 A		
at 110 V rated value at 125 V rated value	2 A		
 at 125 V rated value at 220 V rated value 	2 A 1 A		
at 600 V rated value	0.15 A		
operational current at DC-13	10.4		
• at 24 V rated value	10 A		
• at 48 V rated value	2 A 2 A		
at 60 V rated value			
at 110 V rated value at 125 V rated value	1A		
	0.9 A		
at 220 V rated value	0.3 A		
at 600 V rated value	0.1 A		
contact reliability of auxiliary contacts UL/CSA ratings	1 faulty switching per 100 million (17 V, 1 mA)		
full-load current (FLA) for 3-phase AC motor • at 480 V rated value	44.4		
	11 A		
• at 600 V rated value	11 A		
yielded mechanical performance [hp]			
for single-phase AC motor	0.5 hz		
— at 110/120 V rated value — at 230 V rated value	0.5 hp		
	2 hp		
for 3-phase AC motor at 200/208 V rated value	2 hp		
- at 200/208 V rated value	3 hp 3 hp		
— at 220/230 V rated value — at 460/480 V rated value	3 hp 7 5 hp		
- at 460/480 V rated value	7.5 hp		
	10 hp		
contact rating of auxiliary contacts according to UL Short-circuit protection	A600 / Q600		
design of the fuse link			
for short-circuit protection of the main circuit with type of coordination 1 required	aC: 504 (600)/ 100k4) aM: 204 (600)/ 100k4) DS20: 254 (415) 20k4)		
 with type of coordination 1 required with type of assignment 2 required 	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)		
 with type of assignment 2 required for short circuit protection of the auxiliant switch 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		
fastening method side-by-side mounting height			

width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	
— 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	screw-type terminals
 for auxiliary and control circuit 	screw-type terminals
 at contactor for auxiliary contacts 	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
 solid or stranded 	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
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
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
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross 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; with 3RH29
suitability for use safety-related switching OFF	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 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
Certificates/ approvals	
General Product Approval	

	<u>Confirmation</u>	CCC		KC	EAC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Confor	mity	Test Certificates	
RCM	<u>Type Examination Cer-</u> <u>tificate</u>	UK CA	CE EG-Konf.	Type Test Certific- ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>
Marine / Shipping					
ABS	BUREAU VERITAS		Lloyd's Register LRS	PRS	RINA
Marine / Shipping	other		Railway	Dangerous Good	Environment
RMRS	<u>Confirmation</u>		Vibration and Shock	Transport Information	Environmental Con- firmations
Further information					
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https://www.siemens.com/ic10

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2017-1BA41

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1BA41

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BA4

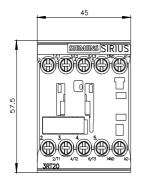
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2017-1BA41&lang=en

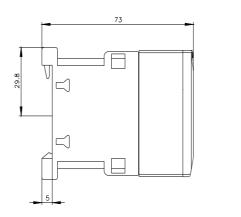
Characteristic: Tripping characteristics, I2t, Let-through current

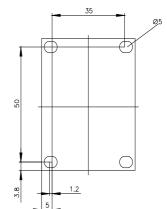
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BA41/char

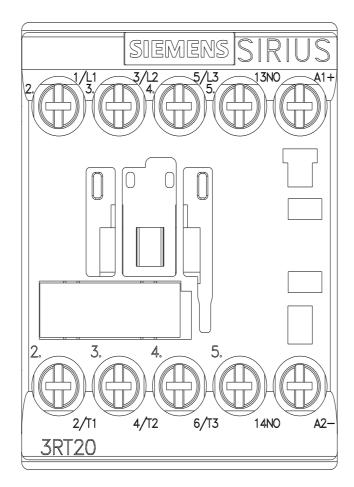
Further characteristics (e.g. electrical endurance, switching frequency)

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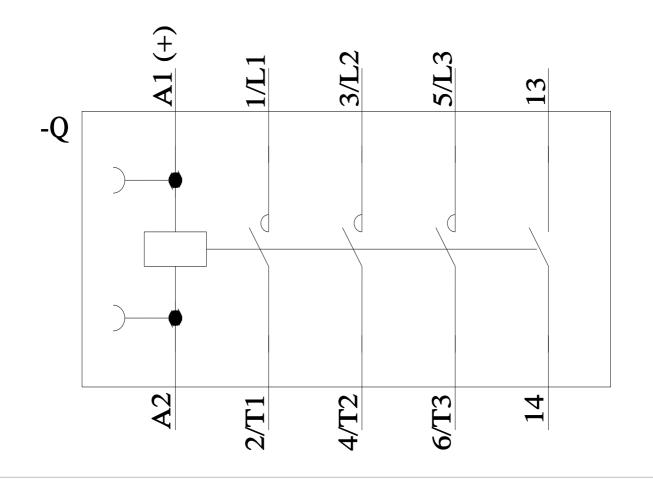








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