SIEMENS

Data sheet 3RT2028-2BW40



power contactor, AC-3e/AC-3, 38 A, 18.5 kW / 400 V, 3-pole, 48 V DC, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0 $\,$

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
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 	9.6 W
 at AC in hot operating state per pole 	3.2 W
 without load current share typical 	5.9 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	10g / 5 ms, 7,5g / 10 ms
shock resistance with sine pulse	
• at DC	15g / 5 ms, 10g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code 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	05.0/
	95 %
Main circuit	95 %

	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	50 A
value	
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	50 A
— up to 690 V at ambient temperature 60 °C rated	42 A
value	
• at AC-3	
— at 400 V rated value	38 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	38 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-4 at 400 V rated value	22 A
• at AC-5a up to 690 V rated value	44 A
• at AC-5b up to 400 V rated value	31.5 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	30.8 A
— up to 400 V for current peak value n=20 rated value	30.8 A
— up to 500 V for current peak value n=20 rated value	30.8 A
— up to 690 V for current peak value n=20 rated value	21 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	20.5 A
— up to 400 V for current peak value n=30 rated value	20.5 A
— up to 500 V for current peak value n=30 rated value	21.4 A
— up to 690 V for current peak value n=30 rated value	21 A
minimum cross-section in main circuit at maximum AC-1 rated	10 mm²
	10 11111
value	10 11111
value operational current for approx. 200000 operating cycles at	12 A
value operational current for approx. 200000 operating cycles at AC-4	
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1	12 A 12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value	12 A 12 A 35 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value	12 A 12 A 35 A 20 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value	12 A 12 A 35 A 20 A 4.5 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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	12 A 12 A 35 A 20 A 4.5 A 1 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 440 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 • with 2 current paths in series at DC-1	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 22 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 600 V rated value — at 600 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 • 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 110 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 24 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 220 V rated value — at 600 V rated value — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value	12 A 12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 35 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 600 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 2 current paths in series at DC-1 — at 24 V rated value — at 600 V rated value — at 440 V rated value — at 600 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • 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 • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 240 V rated value — at 440 V rated value — at 600 V rated value	12 A 12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
poperational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 60 V rated value — at 120 V rated value — at 220 V rated value — at 24 V rated value — at 440 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 • with 3 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 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 — at 60 V rated value — at 110 V rated value — at 110 V rated value — at 110 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 600 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 20 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 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 — at 60 V rated value — at 110 V rated value — at 110 V rated value — at 110 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38

— at 24 V rated value	20 A		
— at 60 V rated value	5 A		
— at 110 V rated value	2.5 A		
— at 220 V rated value	1 A		
— at 440 V rated value	0.09 A		
— at 600 V rated value	0.06 A		
 with 2 current paths in series at DC-3 at DC-5 			
— at 24 V rated value	35 A		
— at 60 V rated value	35 A		
— at 110 V rated value	15 A		
— at 220 V rated value	3 A		
— at 440 V rated value	0.27 A		
— at 600 V rated value	0.16 A		
 with 3 current paths in series at DC-3 at DC-5 			
— at 24 V rated value	35 A		
— at 60 V rated value	35 A		
— at 110 V rated value	35 A		
— at 220 V rated value	10 A		
— at 440 V rated value	0.6 A		
— at 600 V rated value	0.6 A		
operating power			
at AC-2 at 400 V rated value	18.5 kW		
• at AC-3			
— at 230 V rated value	11 kW		
— at 400 V rated value	18.5 kW		
— at 500 V rated value	18.5 kW		
— at 690 V rated value	18.5 kW		
• at AC-3e			
— at 230 V rated value	11 kW		
— at 400 V rated value	18.5 kW		
— at 500 V rated value	18.5 kW		
— at 690 V rated value	18.5 kW		
operating power for approx. 200000 operating cycles at AC-			
4			
• at 400 V rated value	6 kW		
• at 690 V rated value	10.3 kW		
operating apparent power at AC-6a			
• up to 230 V for current peak value n=20 rated value	12.2 kVA		
• up to 400 V for current peak value n=20 rated value	21.3 kVA		
• up to 500 V for current peak value n=20 rated value	26.6 kVA		
 up to 690 V for current peak value n=20 rated value 	25 kVA		
operating apparent power at AC-6a			
up to 230 V for current peak value n=30 rated value	8.1 kVA		
• up to 400 V for current peak value n=30 rated value	14.2 kVA		
• up to 500 V for current peak value n=30 rated value	18.5 kVA		
• up to 690 V for current peak value n=30 rated value	25 kVA		
short-time withstand current in cold operating state up to			
40 °C			
 limited to 1 s switching at zero current maximum 	593 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 5 s switching at zero current maximum 	341 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 10 s switching at zero current maximum 	260 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 30 s switching at zero current maximum 	199 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 60 s switching at zero current maximum 	162 A; Use minimum cross-section acc. to AC-1 rated value		
no-load switching frequency			
• at DC	1 500 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	250 1/h		

type of voltage of the centrol supply voltage a DC centrol supply voltage a DC sind value of programming angle factor control supply voltage rated value of magnet cell at DC signal value of magnet cell at DC signal value of magnet cell at DC signal value of the factor value of the value of	Control circuit/ Control	
		DC
Particul value AB V		
Special parage factor control supply voltage rated value of angent coal at DC Initial value 1.1		48 V
magnet coli at DC		40 V
Soliding power of magnet coll at DC	• initial value	0.8
Solid prover of magnet coil at DC Solid policy	• full-scale value	1.1
Solid prover of magnet coil at DC Solid policy	closing power of magnet coil at DC	5.9 W
Colong delay		5.9 W
a cricing time		50 170 ms
a cricing time	opening delay	
Aurillary circuit		15 18 ms
Aurillary circuit	arcing time	10 10 ms
Auxillary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • at 140 V rated value • at 124 V rated value • at 1690 V rated value • at 125 V rated value • at 1600 V rated value • at 1600 V rated value • at 120 V rated value • at 120 V rated value • at 600 V rated value • at 1600 V rated value • at 120 V rated value • at 220 V rated value • at 250 V		
number of NC contacts for auxiliary contacts instantaneous contact		
Contact Cont		1
Contact Cont		
operational current at AC-12 maximum 10 A operational current at AC-15 1 30 V rated value a 1 300 V rated value 3 A at 500 V rated value 2 A at 500 V rated value 1 A operational current at DC-12 1 A at 24 V rated value 6 A at 80 V rated value 6 A at 10 V rated value 3 A at 110 V rated value 3 A at 12 V rated value 1 A at 220 V rated value 1 A at 220 V rated value 1 A at 24 V rated value 1 A at 250 V rated value 2 A at 24 V rated value 2 A at 120 V rated value 2 A at 110 V rated value 2 A at 110 V rated value 1 A at 120 V rated value 0.9 A at 220 V rated value 0.3 A at 3600 V rated value 0.1 A at 3600 V rated value 2 A at 480 V rated value 3 A at 480 V rated value 3 A at 480 V rated value </td <td></td> <td>1</td>		1
Operational current at AC-15 at 230 V rated value		10 A
• at 230 V rated value		
	•	10 A
e at 690 V rated value operational current at DC-12 e 12 4 V rated value e 10 A e at 48 V rated value e 16 A e at 60 V rated value e 125 V rated value e 125 V rated value e 125 V rated value e 126 V rated value e 127 V rated value e 128 V rated value e 128 V rated value e 129 V rated value e 10 A e 14 125 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 20 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 A e 14 80 V rated value e 10 For single-phase AC motor e 14 480 V rated value e 17 A yielded mechanical performance [hp] e for single-phase AC motor e 14 10 V rated value e 15 hp e 10 V rated value e 10 hp e 12 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 20 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 10 hp e 14 460 V rated value e 12 hp e 15 hp e 16 rate validiary contacts according to UL Short-circuit protection		
at 24 V rated value		
• at 24 V rated value 6 A 6 A • at 48 V rated value 6 A • at 48 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 2 A • at 48 V rated value 2 A • at 60 V rated value 10 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 3 A • at 125 V rated value 4 A • at 125 V rated value 5 A • at 220 V rated value 6 A • at 220 V rated value 7 A • at 220 V rated value 8 A • at 600 V rated value 9 A • at 600 V rat		
at 48 V rated value at 60 V rated value at 110 V rated value at 1125 V rated value at 125 V rated value at 220 V rated value at 200 V rated value at 600 V rated value at 48 V rated value at 48 V rated value at 600 V rated value at 600 V rated value at 100 V rated value at 100 V rated value at 100 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 125 V rated value at 600 V rated value at 220 V rated value at 600 V rated valu	•	10 A
at 160 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 200 V rated value at 600 V rated value at 4600 V rated value at 48 V rated value at 600 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 120 V rated value at 220 V rated value at 200 V rated value at 4600 V rated value at 4600 V rated value at 600 V rated va		
• at 110 V rated value		
at 125 V rated value at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 48 V rated value at 600 V rated value at 600 V rated value at 160 V rated value at 160 V rated value at 160 V rated value at 115 V rated value at 125 V rated value at 120 V rated value at 120 V rated value at 1600 V rated value at 1600 V rated value at 480 V rated value at 140 V rated value at 140 V rated value at 100 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 3600 V rated value at 3600 V rated value at 460480 V rated value at 460480 V rated value at 460480 V rated value at 575/600 V rated value at 5800 V P600 Short-circuit protection design of the fuse link		
• 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 600 V rated value 11 A • at 125 V rated value 0.9 A • at 220 V rated value 0.9 A • at 260 V rated value 0.1 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 27 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 3 hp — at 230 V rated value 5 hp • for 3-phase AC motor — at 2200/208 V rated value 10 hp — at 2200/208 V rated value 10 hp — at 2200/208 V rated value 25 hp — at 460/480 V rated value 25 hp — at 450/5000 V rated value 25 hp — at 450/5000 V rated value 25 hp contact rating of auxiliary contacts according to UL Short-circuit protection		
operational current at DC-13		
		6.1071
	•	10 A
at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 27 A yielded mechanical performance [hp] for single-phase AC motor - at 110/120 V rated value at 230 V rated value at 230 V rated value for 3 hpase AC motor - at 200/208 V rated value at 220/200 V rated value at 220/230 V rated value at 675/600 V rated value 25 hp - at 675/600 V rated value at 675/600 V rated		
 at 125 V rated value 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 at 600 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value for 3-phase AC motor at 230 V rated value for 3-phase AC motor at 200/238 V rated value for 3-phase AC motor at 200/230 V rated value 10 hp at 200/230 V rated value 10 hp at 460/480 V rated value 25 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link 		
at 220 V rated value 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 at 600 V rated value at 600 V rated value at 100/120 V rated value for single-phase AC motor - at 110/120 V rated value - at 230 V rated value for 3-phase AC motor - at 230 V rated value for 3-phase AC motor - at 200/208 V rated value at 200/208 V rated value - at 200/230 V rated value - at 460/480 V rated value - at 460/480 V rated value - at 575/600 V ra		
at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value for 3-phase AC motor at 230 V rated value for 3-phase AC motor at 200/208 V rated value for 3-phase AC motor at 200/208 V rated value for 3-phase AC motor at 200/208 V rated value for 3-phase AC motor at 200/208 V rated value for 3-phase AC motor at 250/230 V rated value for 3-phase AC motor at 250/230 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 3-phase AC motor At 260/480 V rated value for 4-phase AC motor At 260/480 V rated value for 5-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor At 260/480 V rated value for 6-phase AC motor for 6-		
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 • at 600 V rated value • for single-phase AC motor — at 110/120 V rated value • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value • 10 hp — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link		
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 27 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 3 hp — at 230 V rated value 5 hp • for 3-phase AC motor — at 200/208 V rated value 10 hp — at 220/230 V rated value 10 hp — at 460/480 V rated value 25 hp — at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link		
full-load current (FLA) for 3-phase AC motor • at 480 V rated value 34 A • at 600 V rated value 27 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 3 hp — at 230 V rated value 5 hp • for 3-phase AC motor — at 200/208 V rated value 10 hp — at 220/230 V rated value 10 hp — at 460/480 V rated value 25 hp — at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		ridary switching per 100 million (17 V, 1 mz)
at 480 V rated value at 600 V rated value 27 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 3 hp at 230 V rated value 5 hp for 3-phase AC motor at 200/208 V rated value 10 hp at 220/230 V rated value 10 hp at 460/480 V rated value 25 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link		
* at 600 V rated value yielded mechanical performance [hp] * for single-phase AC motor		24 A
yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 3 hp — at 230 V rated value 5 hp • for 3-phase AC motor — at 200/208 V rated value 10 hp — at 220/230 V rated value 10 hp — at 460/480 V rated value 25 hp — at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		
for single-phase AC motor — at 110/120 V rated value		ZI M
- at 110/120 V rated value 3 hp - at 230 V rated value 5 hp ● for 3-phase AC motor - at 200/208 V rated value 10 hp - at 220/230 V rated value 10 hp - at 460/480 V rated value 25 hp - at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		
- at 230 V rated value 5 hp ● for 3-phase AC motor - at 200/208 V rated value 10 hp - at 220/230 V rated value 25 hp - at 460/480 V rated value 25 hp - at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		3 hn
for 3-phase AC motor — at 200/208 V rated value		· ·
- at 200/208 V rated value 10 hp - at 220/230 V rated value 25 hp - at 460/480 V rated value 25 hp - at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		о пр
- at 220/230 V rated value 10 hp - at 460/480 V rated value 25 hp - at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link	·	10 hp
- at 460/480 V rated value 25 hp - at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		
— at 575/600 V rated value 25 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link		·
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link		
Short-circuit protection design of the fuse link		
design of the fuse link		A600 / P600
• for short-circuit protection of the main circuit		
	 for short-circuit protection of the main circuit 	

— with type of coordination 1 required	gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)	
with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (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	102 mm	
width	45 mm	
depth	107 mm	
required spacing		
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	
— torwards — upwards	10 mm	
— upwards — at the side	6 mm	
— at the side — 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 (1 10 mm²)	
 solid or stranded 	2x (1 10 mm²)	
 finely stranded with core end processing 	2x (1 6 mm²)	
 finely stranded without core end processing 	2x (1 6 mm²)	
connectable conductor cross-section for main contacts		
• solid	1 10 mm²	
• stranded	1 10 mm²	
 finely stranded with core end processing 	1 6 mm²	
finely stranded without core end processing	1 6 mm²	
connectable conductor cross-section for auxiliary contacts		
solid or stranded	0.5 2.5 mm²	
finely stranded with core end processing	0.5 1.5 mm²	
finely stranded without core end processing	0.5 2.5 mm²	
type of connectable conductor cross-sections		
for auxiliary contacts	0.405.05.3	
— solid or stranded	2x (0.5 2.5 mm²)	
— finely stranded with core end processing	2x (0.5 1.5 mm²)	
— finely stranded without core end processing	2x (0.5 2.5 mm²)	
for AWG cables for auxiliary contacts AWG number so coded connectable conductor group	2x (20 14)	
AWG number as coded connectable conductor cross section		
for main contacts	18 8	
for auxiliary contacts	20 14	
Safety related data		
product function		
	Yes	
 mirror contact according to IEC 60947-4-1 	165	

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
suitability for use	
 safety-related switching OFF 	Yes

Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conformity	Test Certificates
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Type Examination Cer**tificate**





Type Test Certificates/Test Report

Special Test Certific-

Marine / Shipping













Marine / Shipping other Railway **Dangerous Good Environment**



Confirmation



Vibration and Shock

Transport Information

Environmental Confirmations

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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2028-2BW40

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2028-2BW40}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2BW4

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

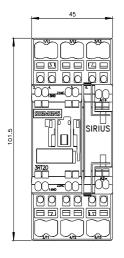
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-2BW40&lang=en

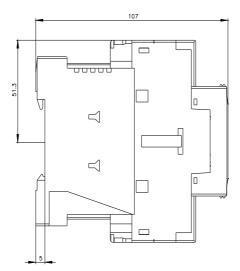
Characteristic: Tripping characteristics, I2t, Let-through current

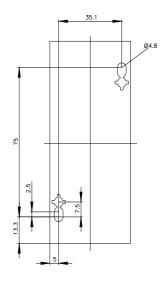
https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2BW40/char

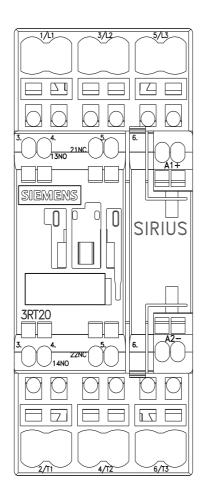
Further characteristics (e.g. electrical endurance, switching frequency)

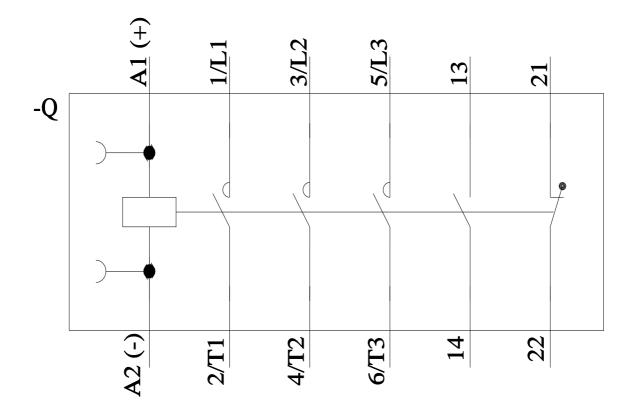
3RT2028-2BW40&objecttype=14&gridview=view1 http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb











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