SIEMENS

Data sheet

3RT2017-1AH02



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 48 V AC, 50/60 Hz, auxiliary contacts: 1 NC, 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 	1.5 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 AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	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

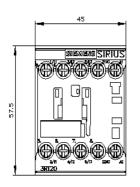
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
 at AC-3e rated value maximum 	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 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	

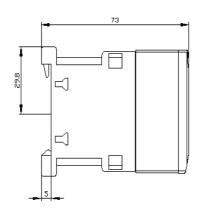
- af 23 V rate value - af 24 V rate value 20 A - af 25 V rate value 25 KV - af 32 V rate value 5 KW - af 32 V rate value 2 KW - af 32 V rate value		
	— at 24 V rated value	20 A
• with 2 current path in sories at BC-3 at DC-5 20 A - at 20 V rated value 5 A - at 10 V rated value 0.35 A - at 24 V rated value 20 A - at 20 V rated value 55 W - at 20 V rated value 25 W - at 400 V frated value 25 W		
	— 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 paths in series at DC-3 at DC-5 20 A - at 24 V rated value 20 A - at 10 V rated value 20 A - at 240 V rated value 22 A - at 240 V rated value 22 A - at 250 V rated value 55 KW - at 250 V rated value 52 KW - at 250 V rated value 52 KW	— 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 at AC-3 at AC-3 at AC-3 at AC-3 at AC-3 bt AC-3 at AC-3 at AC-3 at AC-3 bt AC-4 bt AC-3 ct AC-3 bt AC-3 ct AC-3 bt AC-3 ct AC-4 <lict ac-4<="" li=""></lict>	— at 440 V rated value	0.2 A
et AC-3	— at 600 V rated value	0.2 A
	operating power	
	• at AC-3	
	— at 230 V rated value	3 kW
	— at 400 V rated value	5.5 kW
		5.5 kW
e at AC-3e		
		3 kW
operating power for approx. 200000 operating cycles at AC-4 2 • at 400 V rated value 2 kW • at 809 V rated value 2.5 kW operating apparent power at AC-6a 2.8 kVA • up to 200 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 500 V for current peak value n=20 rated value 6.2 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 3.3 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 5.7 kVA Short-time withtsand current in cold operating state up to 50 60 kV for current peak value n=30 rated value • limited to 10 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 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 • at AC- 10 000 1/h • at AC- 10 000 1/h • at AC- <		
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• 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 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 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 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 5.7 kVA short-time withstand current in cold operating state up to 40 °C - • 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 51 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 51 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 1/h - operating frequency • •1 A/C • at AC		
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• 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 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 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 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 switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 5 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 50 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 • at AC- 10 000 1/h • at AC- 10 000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum	• 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-6 up to 230 V for current peak value n=30 rated value 1.9 kVA 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 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 short-time distributing at zero current maximum limited to 50 s switching at zero current maximum limited to 50 s switching at zero current maximum at AC-1 rated value at AC-1 maximum at AC-3 maximum at AC-3 maximum at AC-3 maximum at AC-4 maxim	operating apparent power at AC-6a	
• up to 500 V for current peak value n=20 rated value • up to 630 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 400 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 630 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 5 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 6 s switching at zero current maximum • limited to 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 • at AC 10 000 1/h operating frequency • at AC • at AC-4 maximum * 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 3.1 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 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 1 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 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 • at AC 10 000 1/h • at AC 10 000 1/h • at AC-1 maximum 1 000 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum	 up to 400 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 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 3.1 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 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 1 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 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 • at AC 10 000 1/h • at AC 10 000 1/h • at AC-1 maximum 1 000 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum	• 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 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 Switching at zero current maximum Switching at zero current maximum Switching at zero current maximum We minimum cross-section acc. to AC-1 rated value limited to 10 s switching at zero current maximum Switching at zero current maximum A, Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum A, Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum A, Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum A, Use minimum cross-section acc. to AC-1 rated value at AC-1 maximum at AC-1 maximum at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3 maximum at AC-4 maximu	• up to 690 V for current peak value n=20 rated value	8 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 200 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 123 A; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maximum 123 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 96 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 10 000 1/h operating frequency 10 000 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 200 1/h Control circuit/ Control Up to 100 t/h • at AC-4 maximum	operating apparent power at AC-6a	
• 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 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 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 30 s switching at zero current maximum 74 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 30 s switching at zero current maximum 74 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 30 s switching at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 1/h 10 000 1/h operating frequency • at AC-3 maximum 750 1/h		1.9 kVA
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• 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 maximum123 A; Use minimum cross-section acc. to AC-1 rated value• limited to 50 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 maximum74 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• 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 AC10 000 1/h• at AC-1 maximum100 01 /h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• control supply voltage at ACAC• control supply voltage at AC48 V• at 50 Hz rated value48 V• at 60 Hz rated value4		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 • limited to 1 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 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 frequency 61 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 0000 1/h • at AC-1 maximum 1000 1/h • at AC-2 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control AC • at 50 Hz rated value 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V • at 60 Hz rated value 48 V		
40 °C • limited to 1 s switching at zero current maximum 200 A; Use minimum cross-section acc. to AC-1 rated value • 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 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 at zero current maximum 74 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching frequency • • at AC 10 000 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-4 maximum 250 1/h Control circuit/ Control V • at AC-4 maximum 250 1/h Control supply voltage at AC 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V • at 60 Hz rated value 48		
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 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 AC 10 000 1/h operating frequency at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 750 1/h at AC-3 maximum at AC-3 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC at 60 Hz rated value 48 V at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC 	 limited to 1 s switching at zero current maximum 	200 A; Use minimum cross-section acc. to AC-1 rated value
 Iimited to 30 s switching at zero current maximum Iimited to 60 s switching at zero current maximum 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 61 A; Use minimum cross-section acc. to AC-1 rated value 750 1/h 62 A; A;	 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 AC 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 • at AC-4 maximum 250 1/h • at AC-4 maximum 250 1/h Control circuit/ Control AC type of voltage of the control supply voltage AC • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V • at 60 Hz rated value 48 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 frequency10 000 1/hoperating frequency-• 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 maximumACControl circuit/ ControlAC• at 50 Hz rated value48 V• at 60 Hz rated value48 V• at 60 Hz rated value48 V	 limited to 30 s switching at zero current maximum 	74 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency10 000 1/hoperating frequency-• 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 maximumACControl circuit/ ControlACtype of voltage of the control supply voltageAC• at 50 Hz rated value48 V• at 60 Hz rated value48 V• at 60 Hz rated value48 V	 limited to 60 s switching at zero current maximum 	61 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency1 000 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/ Controltype of voltage of the control supply voltageAC• at 50 Hz rated value48 V• at 60 Hz rated value48 V• operating range factor control supply voltage rated value of magnet coil at AC	no-load switching frequency	
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• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ ControlACtype of voltage of the control supply voltageACcontrol supply voltage at AC48 V• at 50 Hz rated value48 V• at 60 Hz rated value48 Voperating range factor control supply voltage rated value of magnet coil at ACImagnet coil at AC	• at AC-2 maximum	750 1/h
• at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC	• at AC-3 maximum	750 1/h
Control circuit/ Control AC type of voltage of the control supply voltage AC control supply voltage at AC 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC 48 V	• at AC-3e maximum	750 1/h
Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC 48 V	• at AC-4 maximum	250 1/h
type of voltage of the control supply voltage AC control supply voltage at AC 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC 48 V	Control circuit/ Control	
control supply voltage at AC 48 V • at 50 Hz rated value 48 V • at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC 48 V		AC
at 50 Hz rated value at 60 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC		
• at 60 Hz rated value 48 V operating range factor control supply voltage rated value of magnet coil at AC		48 V
operating range factor control supply voltage rated value of magnet coil at AC		
• at 50 Hz 0.8 1.1	operating range factor control supply voltage rated value of	
		0.8 1.1

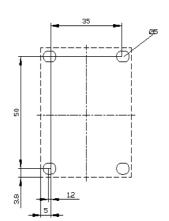
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	37 VA
• at 60 Hz	33 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
• at 50 Hz	5.7 VA
• at 60 Hz	4.4 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
closing delay	
• at AC	9 35 ms
opening delay	
• at AC	4 15 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	
at 24 V rated value	10 A
 at 48 V rated value 	6 A
 at 60 V rated value 	6 A
 at 110 V rated value 	3 A
 at 125 V rated value 	2 A
 at 220 V rated value 	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
at 24 V rated value	10 A
at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	11 A
• at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	

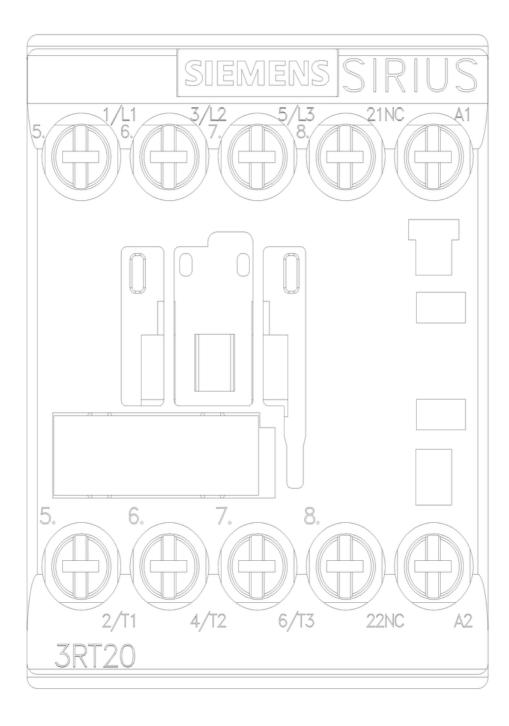
 for short-circuit protection of the main circuit 	
— with type of coordination 1 required	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
- with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
 for short-circuit protection of the auxiliary 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 methodside-by-side mounting	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes
height	58 mm
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 mm²), 2x (0.75 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 mm ²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm ²
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
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 %

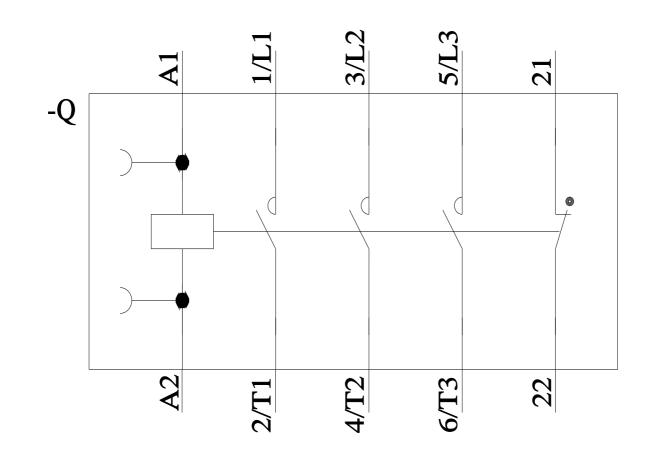
	nd rate according to SN 319	920 73 %			
failure rate [FIT] with lo	ow demand rate according	to SN 31920 100 F	FIT		
T1 value for proof test 61508	interval or service life acco	rding to IEC 20 a			
protection class IP o	n the front according to I	EC 60529 IP20			
touch protection on t	the front according to IEC	60529 finge	r-safe, for vertical contac	t from the front	
ertificates/ approvals	•				
General Product App	proval				
SP Sm		Confirmation		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.	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific</u> ate
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