SIEMENS

Data sheet

3RT2015-1AF02



Power contactor, AC-3 7 A, 3 kW / 400 V 1 NC, 110 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal

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	1.2 W
• per pole	0.4 W
power loss [W] for rated value of the current without load current share typical	4.2 W
surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (switching 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 acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.10.2009 00:00:00
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
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

operational current	-
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	18 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	18 A
— up to 690 V at ambient temperature 60 $^\circ\mathrm{C}$ rated value	16 A
• at AC-3	
— at 400 V rated value	7 A
— at 500 V rated value	6 A
— at 690 V rated value	4.9 A
• at AC-4 at 400 V rated value	6.5 A
 at AC-5a up to 690 V rated value 	15.8 A
 at AC-5b up to 400 V rated value 	5.8 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	4 A
 up to 400 V for current peak value n=20 rated value 	4 A
— up to 500 V for current peak value n=20 rated value	3.8 A
— up to 690 V for current peak value n=20 rated value	3.6 A
• at AC-6a	274
— up to 230 V for current peak value n=30 rated value	2.7 A
 — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated 	2.7 A 2.5 A
value — up to 690 V for current peak value n=30 rated	2.4 A
value	
minimum cross-section in main circuit at maximum AC-1 rated value	2.5 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	2.6 A
 at 690 V rated value 	1.8 A
operational current	
 at 1 current path at DC-1 	
— at 24 V rated value	15 A
— at 110 V rated value	1.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.42 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	15 A
— at 110 V rated value	8.4 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.5 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	15 A
— at 110 V rated value	15 A
— at 220 V rated value	15 A
	0.9 A
— at 440 V rated value	0.7.1
— at 600 V rated value	0.7 A
— at 600 V rated value operational current	0.7 A
— at 600 V rated value	0.7 A15 A

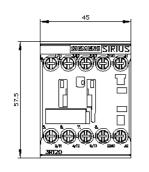
— at 110 V rated value	0.1 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	15 A
— at 110 V rated value	0.25 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	15 A
— at 110 V rated value	15 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.14 A
— at 600 V rated value	0.14 A
operating power	
• at AC-3	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	1.15 kW
at 690 V rated value	1.15 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	1.5 kV·A
• up to 400 V for current peak value n=20 rated value	2.7 kV·A
• up to 500 V for current peak value n=20 rated value	3.3 kV·A
• up to 690 V for current peak value n=20 rated value	4.3 kV·A
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	1 kV·A
• up to 400 V for current peak value n=30 rated value	1.8 kV·A
• up to 500 V for current peak value n=30 rated value	2.2 kV·A
• up to 690 V for current peak value n=30 rated value	2.9 kV·A
short-time withstand current in cold operating state	
up to 40 °C	
 limited to 1 s switching at zero current maximum 	120 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	67 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	52 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	43 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	750 1/h
• at AC-3 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	110 V
• at 60 Hz rated value	110 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	27 V·A
• at 60 Hz	24.3 V·A
inductive power factor with closing power of the coil	
	0.8
inductive power factor with closing power of the coil	0.8 0.75

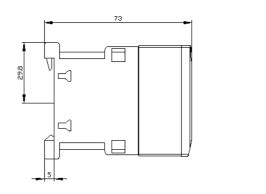
• at 50 Hz 42 VA • at 60 Hz 33 VA inductive power factor with the holding power of the coll 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at AC 9 35 ms opening delay 0.15 ms • at AC 7 13 ms arcing dime 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 10 15 ms number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-14 0 40 • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-2 6 A • at 600 V rated value 6 A • at 600 V rated value 1 A operational current at DC-13 0 A • at 600 V rated value 1 A operational current at DC-13 0 A • at 600 V rated value 1 A operational current at DC-13 0 A		
• et 60 Hz 3.3 V/A Inductive power factor with the holding power of the coll 0.25 • et 60 Hz 0.25 closing delay 0.25 • et AC 9 35 ms opening delay 0.15 ms • et AC 7 13 ms arcing time 10 15 ms control version of the switch operating machanism Standard A1 - A2 Auxiliary circuit 10 A operational current at AC-15 1 • at 200 V rated value 10 A operational current at AC-15 10 A • at 400 V rated value 2 A • at 400 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 3 A • at 600 V rated value 1 A operational current at DC-13 3 A • at 60 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A operational current at DC-13 3 A • at 10 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at	apparent holding power of magnet coil at AC	
inductive power factor with the holding power of the coil 0.25 • at 60 Hz 0.25 • closing delay 0.25 • at AC 9 35 ms opening delay 0.15 ms • at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism 10 15 ms Axiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10.A operational current at AC-15 1 • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 6A • at 10 V rated value 1A • at 220 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 110 V rated value 1A • at 220 V rated value 1A • at 220 V rated value 1A • at 60 V rated value 1A • at 110 V rated value 1A • at 220 V rated value 1A • at 220 V rated value 1A • at 220 V rated		
coli 0.25 • at 80 Hz 0.25 closing delay 935 ms • at AC 935 ms • opening delay 1015 ms • at AC 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Axtiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 10 A operational current at AC-12 maximum 10 A • at 200 V rated value 3 A • at 300 V rated value 1 A operational current at DC-12 0 A • at 400 V rated value 1 A operational current at DC-12 0 A • at 400 V rated value 0 A • at 40 V rated value 0 A • at 22 V rated value 0 A • at 40 V rated val		3.3 V·A
• at 80 Hz 0.25 closing delay 935 ms opening delay 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Availary circuit 1 number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A • at 200 V rated value 3 A • at 300 V rated value 1 A operational current at DC-12 10 A • at 400 V rated value 1 A operational current at DC-12 1 A • at 400 V rated value 1 A operational current at DC-12 10 A • at 40 V rated value 1 A operational current at DC-12 1 A • at 40 V rated value 1 A • at 40 V rated value 2 A • at 40 V rated value 2 A • at 410 V rated value 0 A • at 22 V rated value 0 A • at 42 V rated value 0 A • at 43 V rated value 0 A • at 44 V rated value 0 A • at 450 V rated value 0 A • at 4		
closing delay 9 35 ms opening delay 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Askilary circuit 1 number of NC contacts for auxillary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 200 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 • • at 24 V rated value 10 A • at 600 V rated value 6 A • at 10 V rated value 6 A • at 20 V rated value 1 A operational current at DC-12 • • at 24 V rated value 10 A • at 24 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A	• at 50 Hz	0.25
• eit AC 9 35 ms opening delay - • eit AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Axillary circuit 1 number of NC contacts for auxiliary contacts 1 operational current at AC-12 maximum 10 A operational current at DC-12 10 A • at 600 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 10 A • at 82 V rated value 10 A • at 60 V rated value 10 A • at 22 V rated value 10 A • at 60 V rated value 10 A • at 110 V rated value 10 A • at 12 V rated value 10 A <td>• at 60 Hz</td> <td>0.25</td>	• at 60 Hz	0.25
opening delay 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxilary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 • at 230 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at AC-12 1 A operational current at DC-12 2 A • at 600 V rated value 10 A • at 600 V rated value 6 A • at 10 V rated value 10 A • at 22 V rated value 10 A • at 24 V rated value 2 A • at 25 V rated value 10 A • at 260 V rated value 0.15 A operational current at DC-13 0.10 A • at 260 V rated value 2 A • at 60 V rated value 0.3 A • at 22 V rated value 0.3 A • at 22 V rated value	closing delay	
• at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 operational current at AC-12 maximum 10 A operational current at AC-13 maximum 10 A operational current at AC-12 maximum 10 A • at 230 V rated value 10 A • at 500 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 1 • at 24 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 6 A • at 25 V rated value 10 A • at 25 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value <	• at AC	9 35 ms
arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 10.A operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 200 V rated value 3 A • at 500 V rated value 1 A operational current at DC-12 0 A • at 80 V vrated value 6 A • at 80 V rated value 10 A • at 80 V rated value 1 A • at 80 V rated value 1 A • at 20 V rated value 2 A • at 20 V rated value 10 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A	opening delay	
control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit Immber of NC contacts for auxiliary contacts 1 instantaneous contact 1 10 A operational current at AC-12 maximum 10 A 10 A operational current at AC-15 10 A 10 A • at 230 V rated value 10 A 3A • at 400 V rated value 1 A 0 operational current at DC-12 10 A 3A • at 500 V rated value 1 A 0 operational current at DC-12 10 A 3A • at 24 V rated value 6 A 3A • at 44 V rated value 6 A 3A • at 25 V rated value 1 A 0 • at 25 V rated value 2 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1	• at AC	7 13 ms
Auxillary circuit number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 eit 230 V rated value 3 A eit 600 V rated value 1 A operational current at DC-12 1 A eit 600 V rated value 6 A eit 60 V rated value 6 A eit 10 V rated value 6 A eit 220 V rated value 1 A operational current at DC-12 0.15 A eit 220 V rated value 1 A eit 220 V rated value 1 A eit 220 V rated value 1 A eit 200 V rated value 2 A eit 200 V rated value 1 A eit 200 V rated value 1 A eit 200 V rated value 1 A eit 600 V rated value 10 A eit 300 V rated value 1 A eit 600	arcing time	10 15 ms
number of NC contacts for auxiliary contacts 1 instantaneous contact 0perational current at AC-12 maximum operational current at AC-15 10 A • at 230 V rated value 3 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 10 A • at 600 V rated value 1 A operational current at DC-12 0 A • at 12 V rated value 10 A • at 10 V rated value 6 A • at 10 V rated value 10 A • at 24 V rated value 10 A • at 10 V rated value 10 A • at 24 V rated value 10 A • at 10 V rated value 10 A • at 25 V rated value 10 A • at 20 V rated value 2 A • at 600 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 0.16 A • at 20 V rated value 0.18 A • at 200 V rated value 0.1 A concater reliability of auxilia	control version of the switch operating mechanism	Standard A1 - A2
instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15 • at 230 V rated value • at 300 V rated value • at 600 V rated value • at 600 V rated value • at 44 V rated value • at 48 V rated value • at 100 V rated value • at 24 V rated value • at 100 V rated value • at 25 V rated value • at 260 V rated value • at 260 V rated value • at 270 V rated value • at 280 V rated value • at 200 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 200 V rated value • at 200 V rated value • at 600 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value	Auxiliary circuit	
operational current at AC-15• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 Aoperational current at DC-12• 1 A• at 24 V rated value6 A• at 48 V rated value6 A• at 45 V rated value6 A• at 24 V rated value1 A• at 24 V rated value6 A• at 25 V rated value1 A• at 20 V rated value1 A• at 220 V rated value2 A• at 220 V rated value1 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value0.15 Aoperational current at DC-1310 A• at 25 V rated value1 A• at 25 V rated value2 A• at 60 V rated value1 A• at 25 V rated value0.9 A• at 26 V rated value0.14 A• at 270 V rated value0.14 A• at 280 V rated value0.14 A• at 480 V rated value0.14 A• at 480 V rated value0.14 A• at 480 V rated value0.15 A• at 480 V rated value0.25 hp• at 280 V rated value0.75 hp		1
• at 230 V rated value 10 A • at 400 V rated value 3 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 6 A • at 10 V rated value 6 A • at 25 V rated value 1 A • operational current at DC-12 0 A • at 60 V rated value 6 A • at 60 V rated value 6 A • at 25 V rated value 1 A • at 26 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 10 A • at 24 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.15 A • at 220 V rated value 0.3 A • at 220 V rated value 0.14 A • at 220 V rated value 0.14 A • at 200 V rated value 0.14 A • at 600 V rated value 0.14 A • at 480 V rated value 6.1 A • yieided mechanical perfor	operational current at AC-12 maximum	10 A
• at 400 V rated value 3 A • at 690 V rated value 2 A • at 690 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 6 A • at 48 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 2 A • at 20 V rated value 1 A • at 20 V rated value 2 A • at 20 V rated value 1 A • at 20 V rated value 10 A • at 48 V rated value 2 A • at 10 V rated value 2 A • at 10 V rated value 0.9 A • at 20 V rated value 0.1 A • at 20 V rated value 0.1 A • at 600 V rated value 0.1 A • at 480 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A yielded mechanical perfor	operational current at AC-15	
• at 500 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 10 V rated value 6 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 22 V rated value 0.15 A operational current at DC-13 0 A • at 40 V rated value 10 A • at 40 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 6.1 A yielded mechanical performance [hp] 6.1 A • at 600 V rated value 6.1 A out rated value 0.25 hp • at 320 V rated value	• at 230 V rated value	10 A
• at 680 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 3 A • at 10 V rated value 3 A • at 10 V rated value 3 A • at 220 V rated value 0.15 A operational current at DC-13 0.15 A • at 60 V rated value 0.15 A operational current at DC-13 0.4 • at 60 V rated value 0.16 A • at 60 V rated value 0.16 A • at 60 V rated value 0.15 A operational current at DC-13 0.15 A • at 60 V rated value 0.16 A • at 60 V rated value 0.16 A • at 60 V rated value 0.1 A • at 22 V rated value 0.3 A • at 800 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 0.25 hp	• at 400 V rated value	3 A
operational current at DC-12• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 200 V rated value0.15 Aoperational current at DC-1310 A• at 48 V rated value2 A• at 24 V rated value0.15 Aoperational current at DC-130.16 A• at 24 V rated value2 A• at 24 V rated value2 A• at 25 V rated value2 A• at 26 V rated value0.9 A• at 25 V rated value0.3 A• at 220 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)ULCSA ratings1full-load current (FLA) for 3-phase AC motor4.8 A• at 480 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 110/120 V rated value0.75 hp• at 200/208 V rated value0.75 hp	• at 500 V rated value	2 A
• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value2 A• at 24 V rated value2 A• at 600 V rated value2 A• at 110 V rated value0.9 A• at 125 V rated value0.3 A• at 220 V rated value0.14 A• at 600 V rated value0.14 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings4.8 A• at 480 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor0.75 hp	• at 690 V rated value	1 A
eat 48 V rated value 6 A • at 60 V rated value 6 A • at 110 V rated value 3 A • at 220 V rated value 2 A • at 220 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 0.15 A operational current at DC-13 0 • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 24 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 2 A • at 60 V rated value 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A • for single-phase AC motor 0.25 hp - at 200 V rated value 0.25 hp - at 200	operational current at DC-12	
e 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 0 • at 24 V rated value 10 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 0.9 A • at 220 V rated value 0.9 A • at 200 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor - at 100/120 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - at 200/208 V rated value	• at 24 V rated value	10 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 10 A • at 42 V rated value 2 A • at 43 V rated value 2 A • at 44 V rated value 2 A • at 45 V rated value 2 A • at 60 V rated value 2 A • at 110 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 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor • at 101/120 V rated value 0.25 hp • at 230 V rated value 0.75 hp	 at 48 V rated value 	6 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 10 A • at 24 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.9 A • at 125 V rated value 0.9 A • at 20 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • • for single-phase AC motor - - at 110/120 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - - at 200/208 V rated value 1.5 hp	• at 60 V rated value	6 A
 at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 480 V rated value bielded mechanical performance [hp] for single-phase AC motor at 230 V rated value at 5 hp 	• at 110 V rated value	3 A
• at 600 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 2 A • at 60 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 200 V rated value 0.1 A • at 600 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 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor • at 200 V rated value 0.25 hp • at 230 V rated value 0.75 hp • for 3-phase AC motor - at 230 V rated value	• at 125 V rated value	2 A
operational current at DC-1310 A• at 24 V rated value2 A• at 48 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• contact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 600 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor- at 110/120 V rated value0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor- at 200/208 V rated value1.5 hp	• at 220 V rated value	1 A
• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value6.1 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp	• at 600 V rated value	0.15 A
 at 48 V rated value at 60 V rated value at 10 V rated value at 110 V rated value at 125 V rated value 0.9 A at 220 V rated value 0.3 A at 600 V rated value 0.1 A UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 6.1 A at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200 V rated value 1.5 hp 	operational current at DC-13	
 at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value 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 A at 600 V rated value A UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value A A at 600 V rated value A e at 600 V rated value A A bigle-phase AC motor at 110/120 V rated value A A A A A A A for single-phase AC motor at 230 V rated value A A A A A A 	at 24 V rated value	10 A
• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp- at 110/120 V rated value0.75 hp• for 3-phase AC motor0.75 hp- at 230 V rated value1.5 hp	 at 48 V rated value 	2 A
 at 125 V rated value 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 4.8 A at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp 	• at 60 V rated value	2 A
• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp- at 110/120 V rated value0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp	 at 110 V rated value 	1 A
• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor4.8 A• at 480 V rated value6.1 A• at 600 V rated value0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp	 at 125 V rated value 	0.9 A
contact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor0.25 hp- at 110/120 V rated value0.75 hp• for 3-phase AC motor1.5 hp	• at 220 V rated value	0.3 A
UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A • for single-phase AC motor - at 110/120 V rated value - at 230 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - at 200/208 V rated value	• at 600 V rated value	0.1 A
full-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor— at 110/120 V rated value0.25 hp— at 230 V rated value0.75 hp• for 3-phase AC motor— at 200/208 V rated value1.5 hp	contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
 at 480 V rated value at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 5 hp 	UL/CSA ratings	
 at 480 V rated value at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 5 hp 	full-load current (FLA) for 3-phase AC motor	
yielded mechanical performance [hp]• for single-phase AC motor— at 110/120 V rated value0.25 hp— at 230 V rated value0.75 hp• for 3-phase AC motor— at 200/208 V rated value1.5 hp	• at 480 V rated value	4.8 A
 for single-phase AC motor at 110/120 V rated value at 230 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp 	• at 600 V rated value	6.1 A
 for single-phase AC motor at 110/120 V rated value at 230 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp 	yielded mechanical performance [hp]	
 at 230 V rated value for 3-phase AC motor at 200/208 V rated value 0.75 hp 1.5 hp 		
for 3-phase AC motor — at 200/208 V rated value 1.5 hp		0.25 hp
for 3-phase AC motor — at 200/208 V rated value 1.5 hp		
- at 200/208 V rated value 1.5 hp	 for 3-phase AC motor 	
		1.5 hp
- at 220/230 V rated value 2 hp		2 hp
— at 460/480 V rated value 3 hp		
— at 575/600 V rated value 5 hp		
contact rating of auxiliary contacts according to UL A600 / Q600		
Short-circuit protection		
design of the fuse link		
for short-circuit protection of the main circuit	•	
		gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
- with type of assignment 2 required gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)		gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,

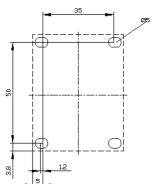
\bullet for short-circuit protection of the auxiliary switch required

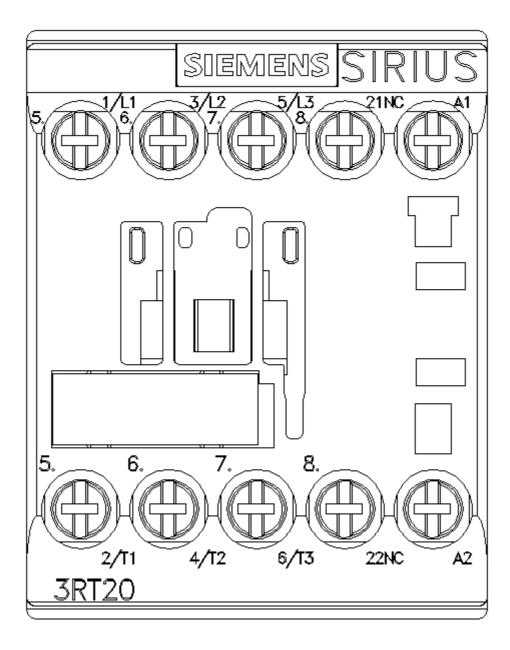
nstallation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
 side-by-side mounting 	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)
 at AWG cables for main contacts 	2x (20 16), 2x (18 14), 2x 12
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)
 at 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 acc. to IEC 60947-4-1	Yes

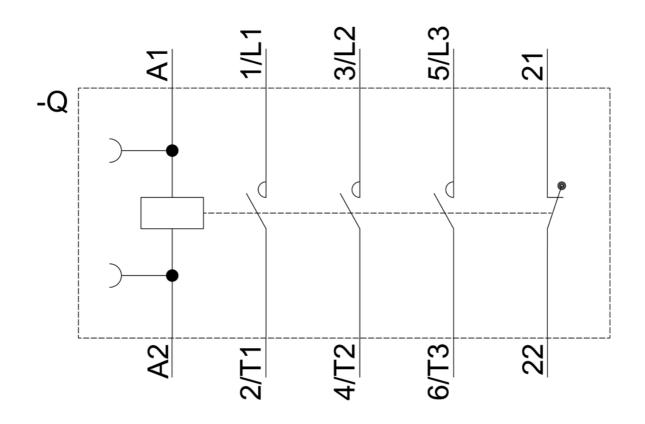
B10 value with high demand rate acc. to SN 31920 1 000 000 proportion of dangerous failures 40 % • with low demand rate acc. to SN 31920 40 % • with high demand rate acc. to SN 31920 73 % failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to 20 y 20 y IEC 61508 IP20 touch protection on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front service if parts and the front service	
 with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 73 % failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to 20 y IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 suitability for use safety-related switching OFF Yes 	
with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front suitability for use • safety-related switching OFF Yes	
failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to IEC 61508 20 y protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front suitability for use • safety-related switching OFF Yes	
T1 value for proof test interval or service life acc. to IEC 61508 20 y protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front suitability for use • safety-related switching OFF	
IEC 61508 IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front suitability for use • safety-related switching OFF Yes	
touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front suitability for use • safety-related switching OFF Yes	
suitability for use • safety-related switching OFF Yes	
safety-related switching OFF Yes	
Certificates/ approvals	
General Product Approval EMC	
Functional Safety/Safety of Machinery Declaration of Conformity Test Certificates Marine / Shipp	oing
Type Examination UK Declaration of Type Test Certific- Special Test Certific- ate Certificate Conformity EG-Konf. Type Test Certific- ate ate	
Marine / Shipping	
URS PRS RINA RINA RINA	
other	
Confirmation Confirmation	
Further information	
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=3RT2015-1AF02	
Cax online generator	
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-1AF02	
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-1AF02	
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)	
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en	
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en Characteristic: Tripping characteristics, I ² t, Let-through current	
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en	











last modified:

7/2/2021 🖸