SIEMENS

Data sheet

3RT2018-1AN21



Power contactor, AC-3 16 A, 7.5 kW / 400 V 1 NO, 220 V AC, 50/60 Hz 3-pole, Size S00 screw terminals

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	3 W
at AC in hot operating state per pole	1 W
without load current share typical	5.7 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 safe isolation 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 (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 according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
 at AC-3 rated value maximum 	690 V
 at AC-3e rated value maximum 	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated value	20 A
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-3e	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-4 at 400 V rated value	11.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	9.6 A
 up to 400 V for current peak value n=20 rated value 	9.6 A
 — up to 500 V for current peak value n=20 rated value 	9.6 A
 — up to 690 V for current peak value n=20 rated value 	8.9 A
 at AC-6a up to 230 V for current peak value n=30 rated value 	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
 up to 500 V for current peak value n=30 rated value 	6.4 A
 — up to 690 V for current peak value n=30 rated value 	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	5.5 A
at 690 V rated value	4.4 A
operational current	
• at 1 current path at DC-1	
— at 24 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 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 04 V/ rated volu-	20.4
— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
 at 1 current path at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 110 V rated value	0.1 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 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 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
at AC-2 at 400 V rated value	7.5 kW
• at AC-3	7.5 KW
• at AG-3 — at 230 V rated value	4 kW
	7.5 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	
— at 690 V rated value	7.5 kW
• at AC-3e	4.134
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-4	
 at 400 V rated value 	2.5 kW
at 690 V rated value	3.5 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	3.8 kVA
 up to 400 V for current peak value n=20 rated value 	6.6 kVA
 up to 500 V for current peak value n=20 rated value 	8.3 kVA
 up to 690 V for current peak value n=20 rated value 	10.6 kVA
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	2.5 kVA
 up to 400 V for current peak value n=30 rated value 	4.4 kVA
 up to 500 V for current peak value n=30 rated value 	5.5 kVA
 up to 690 V for current peak value n=30 rated value 	7.6 kVA
short-time withstand current in cold operating state up to 40 °C	
 limited to 1 s switching at zero current maximum 	300 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	169 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	128 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	92 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
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-3e maximum	750 1/h
• at AC-3e maximum • at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC

Control Supply Vorticity as AL2 220 V • at 60 Hz relet Value 220 V • at 60 Hz relet Value 220 V • at 60 Hz 0.8 1.1 • at 60 Hz 0.75 • at 60 Hz 0.25 • at 60 Hz		_
• at 00 Hz rinkd value 20 V value of magnet coil at AC 0.811 • at 80 Hz 0.81 apparent pick up power of magnet coil at AC 37 VA • at 60 Hz 37 VA • at 60 Hz 0.81 • at 60 Hz 37 VA • at 60 Hz 0.8 • at 60 Hz 37 VA • at 60 Hz 0.8 • at 60 Hz 0.7 • at 60 Hz 0.7 • at 60 Hz 0.7 • at 60 Hz 0.25 • at 60 Hz 0.1 Hs ms coll of evalue 10 • at 60 Hz 0.25 • at 60 Hz 0.4 • at 60 Hz 0.4 • at 60 Hz 0.4 • at 60 Hz <	control supply voltage at AC	
operating range factor control supply voltage rated vite of magnet coil at AC 0.81.1 a = 150 Hz 0.851.1 apparent pick-tup power of magnet coil at AC 33 VA a = 160 Hz 33 VA a = 160 Hz 0.8 a = 160 Hz 0.75 apparent holding power of magnet coil at AC 5.7 VA a = 160 Hz 0.75 apparent holding power of magnet coil at AC 5.7 VA a = 160 Hz 0.25 cloaing delay 0		
value of magnet coil at AC 0.81.1 • at 50 Hz 0.81.1 apparent pick-up power of magnet coil at AC 37 VA • at 60 Hz 33 VA • at 60 Hz 0.8 • at 60 Hz 0.8 • at 60 Hz 0.75 apparent pick-up ower of magnet coil at AC 0.75 • at 60 Hz 0.75 apparent holding power of magnet coil at AC 4.4 VA • at 60 Hz 0.25 • at 60 Hz 0.15 ms control version of the switch operating mechanism Standard H - AZ Auxitary vircent 10 A • at 200 V rated value 10 A • at 200 V rated value		220 V
• e16 0Hz 0.85 1.1 apparent pick-up power of magnet coil at AC 37 VA • a1 60 Hz 33 VA • a1 60 Hz 0.8 • a1 60 Hz 0.8 • a1 60 Hz 0.75 apparent holding power of magnet coil at AC 0.75 • a1 60 Hz 0.75 apparent holding power of magnet coil at AC 0.8 • a1 60 Hz 0.75 at 60 Hz 0.25 • a1 60 Hz 0.25 • at 60 Hz 0.4 • at 20 Vrade Value 0.4	value of magnet coil at AC	
apparent pick-up power of magnet coil at AC 3 • at 50 Hz 33 VA Inductive power factor with closing power of the coil 0.8 • at 30 Hz 0.75 • paparent holding power of magnet coil at AC 5.7 VA • at 30 Hz 0.75 • at 30 Hz 4.4 VA inductive power factor with the holding power of the coil 0.25 • at 30 Hz 0.25 • at AC 7 13 ms arclingt wind 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxillary critical 10.A operational current at AC-12 maximum 10 A	• at 50 Hz	
at 150 Hz 37 VA at 150 Hz 33 VA Inductive power factor with closing power of the coll 0.8 at 150 Hz 0.75 apparent holding power of magnet coll at AC 0.75 at 30 Hz 0.77 at 30 Hz 0.75 apparent holding power of magnet coll at AC 0.75 at 30 Hz 0.25 at 30 V rated value 10.15 ms Standard A1 - A2 A2 Auxlingy circuit 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 2A at 600 V rated value 1A oparational current at AC-12 0.4 <tr< td=""><td>• at 60 Hz</td><td>0.85 1.1</td></tr<>	• at 60 Hz	0.85 1.1
• et 60 hz 33 VA inductive power factor with closing power of the coil 0.8 • at 80 hz 0.75 • at 80 hz 5.7 VA • at 80 hz 0.25 • at 80 hz 0.25 • closing delay 0.25 • at AC 9 35 ms • opening delay 0.1 fs ms • at AC 7 13 ms arcing time 10 16 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 10.A operational current at AC-12 maximum 10.A operational current at AC-15 1 • at 800 V rated value 1A • at 800 V rated value 1A • at 800 V rated value 1A • at 800 V rated value 6A • at 800 V rated value 1A • at 800 V rated value 1A • at 800 V rated value 1A • at 800 V rated value 6A • at 800 V rated value 1A • at 800 V rated va	apparent pick-up power of magnet coil at AC	
inductive power factor with closing power of the coll 0.8 • at 50 Hz 0.75 apparent holding power of magnet coll at AC 0.8 • at 50 Hz 0.75 • at 50 Hz 5.7 VA • at 50 Hz 5.7 VA • at 50 Hz 0.25 • at 50 Hz 0.25 • at 50 Hz 0.25 • at 60 Hz 0.25 closing delay 0.25 • at AC 935 ms opening delay 1015 ms • at AC 713 ms arcing time 1015 ms ccontrol version of the switch operating mechanism 10.A operational current at AC-12 maximum 10.A operational current at AC-15 1 operational current a	• at 50 Hz	37 VA
• at 50 Hz0.8• at 50 Hz0.75• at 50 Hz5.7 VA• at 50 Hz4.4 VAinductive power factor with the holding power of the coll0.25• at 60 Hz0.25• at 60 Hz0.25• at 60 Hz0.25• at 60 Hz0.25• at AC9 35 ms• opening delay9 35 ms• at AC10 15 ms• at AC10 15 ms• at AC10 15 ms• at 320 V rated value10.A• at 320 V rated value10.A• at 300 V rated value10.A• at 300 V rated value10.A• at 400 V rated value10.A• at 400 V rated value10.A• at 230 V rated value10.A• at 240 V rated value10.A• at 240 V rated value10.A• at 400 V rated value10.A• at 600 V rated value10.A•	• at 60 Hz	33 VA
• et 60 Hz 0.75 apparent holding power of magnet coil at AC 5.7 VA • at 30 Hz 4.4 VA inductive power factor with the holding power of the coil 0.25 • at 80 Hz 0.25 closing delay 0.25 • at AC 9 35 ms • at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism 10 15 ms control version of the switch operating mechanism 10 15 ms findardiance scottact 1 operational current at AC-12 maximum 10.A operational current at AC-15 10.A operational current at AC-15 10.A • at 300 V rated value 10.A operational current at AC-15 10.A • at 600 V rated value 10.A operational current at AC-15 1 • at 600 V rated value 10.A operational current at AC-15 1 • at 600 V rated value 10.A operational current at AC-15 1 • at 600 V rated value 10.A • at 220 V rated value 10.A <tr< td=""><td>inductive power factor with closing power of the coil</td><td></td></tr<>	inductive power factor with closing power of the coil	
apparent holding power of magnet coil at AC 5.7 VA • at 50 Hz 5.7 VA • at 50 Hz 4.4 VA Inductive power factor with the holding power of the coil 0.25 • at 60 Hz 0.25 closing delay 9 35 ms • at AC 9 35 ms opening delay 0 15 ms • at AC 1 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 10 A operational current at AC-15 1 • at 200 V rated value 2 A • at 300 V rated value 1 A operational current at AC-15 1 • at 400 V rated value 1 A operational current at AC-15 1 A • at 400 V rated value 1 A operational current at AC-15 1 A operational current at DC-12 1 A • at 20 V rated value 6 A • at 20 V rated value 1 A ot 20 V rated value 2 A • at 20 V rated value	• at 50 Hz	0.8
at 50 Hz 57 VA • at 60 Hz 44 VA inductive power factor with the holding power of the coll 0.25 • at 60 Hz 0.25 closing delay 0.25 • 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 Auxiliary circuit 1015 ms number of NO contacts for auxiliary contacts 1 instantaneous contact 104 operational current at AC-12 maximum 10.A operational current at AC-12 maximum 10.A operational current at DC-12 1 • at 600 V rated value 2.A • at 600 V rated value 6.A • at 600 V rated value 6.A • at 100 V rated value 0.5.A • at 600 V rated value 0.4 • at 20 V rated value 0.4 <td>• at 60 Hz</td> <td>0.75</td>	• at 60 Hz	0.75
• at 60 Hz 44 VA Inductive power factor with the holding power of the coll 0.25 • at 50 H2 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 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 • at 200 V rated value 2 A • at 400 V rated value 1 A operational current at AC-15 1 A • at 600 V rated value 1 A operational current at AC-15 1 A • at 600 V rated value 1 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 220 V	apparent holding power of magnet coil at AC	
inductive power factor with the holding power of the coil 0.25 • at 50 Hz 0.25 • at 60 Hz 0.25 • closing delay 9 35 ms • 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 NO contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 • at 200 V rated value 1A • at 600 V rated value 2A • at 600 V rated value 1A operational current at AC-15 1 • at 400 V rated value 1A operational current at DC-15 0 • at 600 V rated value 6A • at 600 V rated value 6A • at 600 V rated value 1A operational current at DC-13 0 • 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 50 Hz	5.7 VA
coli 0.25 closing delay 0.25 closing delay 0.25 et A.C 935 ms opening delay 015 ms • et A.C 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1015 ms rumber of NO contacts for auxiliary contacts 1 instantaneous contact 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A • at 230 V rated value 3 A • at 400 V rated value 3 A • at 400 V rated value 1 A operational current at DC-12 0 A • at 24 V rated value 6 A • at 250 V rated value 6 A • at 26 V rated value 2 A • at 27 V rated value 0 A • at 28 V rated value 0 A • at 29 V rated value 0 A • at 20 V rated value 0 A • at 20 V rated value 0 A • at 20 V rated value 0 A • at 2	• at 60 Hz	4.4 VA
• at 80 Hz 0.25 closing delay 9 35 ms • at AC 9 35 ms • at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Axxillary circuit 10.A operational current at AC-12 maximum 10 A operational current at AC-15 1 • at 230 V rated value 3 A • at 600 V rated value 3 A • at 600 V rated value 1 A operational current at DC-12 0 A • at 230 V rated value 1 A operational current at DC-12 0 A • at 600 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 10 V rated value 0 A • at 220 V rated value 0 A • at 60 V rated va		
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closing delay 9 35 ms opening delay 9 35 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NO contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 e at 230 V rated value 10 A e at 200 V rated value 2 A e at 600 V rated value 2 A e at 400 V rated value 10 A e at 400 V rated value 2 A e at 230 V rated value 10 A e at 600 V rated value 2 A e at 110 V rated value 6 A e at 125 V rated value 1 A e at 220 V rated value 1 A e at 600 V rated value 1 A e at 600 V rated value 2 A e at 60 V rated value 0.15 A operational current at DC-13 2 A e at 60 V rated value 1 A e at 60 V rated value 2 A e at 60 V rated value 1 A <td></td> <td></td>		
• eit AC 9 35 ms opening delay - • at AC 7 13 ms arcing time 10 15 ms Control version of the switch operating mechanism Standard A1 - A2 Number of NO contacts for auxiliary contacts 1 Instananeous 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 600 V rated value 1 A operational current at DC-12 - • at 820 V rated value 10 A • at 600 V rated value 6 A • at 12 V rated value 6 A • at 230 V rated value 1 A operational current at DC-12 - • at 24 V rated value 6 A • at 250 V rated value 1 A • at 20 V rated value 2 A • at 20 V rated value 2 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 2 A • at 20 V ra		
opening delay 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of No contacts for auxiliary contacts 1 operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 230 V rated value 2A • at 630 V rated value 10 A operational current at DC-12 10 A • at 630 V rated value 10 A operational current at DC-12 10 A • at 24 V rated value 10 A • at 250 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 10 A • at 250 V rated value 6 A • at 260 V rated value 1 A • at 270 V rated value 1 A • at 270 V rated value 1 A • at 280 V rated value 2 A • at 29 V rated value 1 A • at 200 V rated value 1 A • at 600 V rated value 1 A • at 60 V rated value 1 A • at 60 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 1		9 35 ms
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arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NO contacts for auxiliary contacts 1 instantaneous contact 0 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 10 A operational current at DC-12 10 A • at 60 V rated value 10 A operational current at DC-12 10 A • at 60 V rated value 6 A • at 110 V rated value 10 A • at 60 V rated value 10 A • at 60 V rated value 10 A • at 60 V rated value 10 A • at 22 V rated value 10 A • at 24 V rated value 10 A • at 25 V rated value 10 A • at 24 V rated value 10 A • at 60 V rated value 10 A • at 24 V rated value 10 A • at 60 V rated value 10 A • at 24 V rated value		7 13 ms
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Auxiliary circuit number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15 eit 200 Vrated value at 400 V rated value at 600 V rated value at 600 V rated value at 800 V rated value at 22 V rated value at 24 V rated value at 20 V rated value at 20 V rated value at 20 V rated value at 40 V rated value at 40 V rated value at 20 V rated value at 40 V rated value at 40 V rated value at 60 V rated value		
number of NO contacts for auxiliary contacts 1 instantaneous contact 10 A operational current at AC-12 maximum 10 A • at 230 V rated value 3A • at 400 V rated value 3A • at 600 V rated value 1A operational current at DC-12 1A • at 690 V rated value 10 A • at 42 V rated value 1A operational current at DC-12 • 12 4 V rated value • at 49 V rated value 6A • at 10 V rated value 6A • at 10 V rated value 1A operational current at DC-12 • 12 5 V rated value • at 10 V rated value 1A • at 20 V rated value 1A • at 10 V rated value 2A • at 20 V rated value 1A • at 20 V rated value 0.15 A operational current at DC-13 0.16 A • at 60 V rated value 2A • at 40 V rated value 10 A • at 60 V rated value 0.3 A • at 20 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA)		
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operational current at AC-15 • at 230 V rated value • at 500 V rated value • at 600 V rated value • at 690 V rated value • at 640 V rated value • at 220 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 600 V rated value • at 420 V rated value • at 420 V rat		- 10 A
• 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 10 A • at 24 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 6 A • at 20 V rated value 0 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 40 V rated value 2 A • at 60 V rated value 0 A • at 20 V rated value 0 A • at 200 V rated value 0 A • at	•	
• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 Aoperational current at DC-120 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 212 V rated value2 A• at 220 V rated value1 A• at 220 V rated value1 A• at 220 V rated value0.15 Aoperational current at DC-1310 A• at 48 V rated value0.15 Aoperational current at DC-1310 A• at 48 V rated value2 A• at 20 V rated value10 A• at 220 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value2 A• at 60 V rated value2 A• at 60 V rated value1 A• at 220 V rated value0.9 A• at 220 V rated value0.1 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings1full-local current (FLA) for 3-phase AC motor14 A• at 480 V rated value14 A• at 600 V rated value14 A• a	-	10 Δ
 et 500 V rated value at 690 V rated value 1 A operational current at DC-12 at 24 V rated value 6 A at 60 V rated value 6 A at 10 V rated value 9 A at 125 V rated value 2 A at 220 V rated value 1 A at 220 V rated value 1 A at 60 V rated value 1 A at 48 V rated value 2 A at 25 V rated value 1 A at 20 V rated value 1 A at 20 V rated value 10 A at 48 V rated value 2 A at 220 V rated value 1 A at 60 V rated value 2 A at 60 V rated value 3 A at 60 V rated value 2 A at 60 V rated value 3 A at 60 V rated value 3 A at 60 V rated value 1 A by rated value 1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UJ/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A yielded mechanical performance [tp] for single-phase AC motor - at 10/120 V rated value 1 hp - at 230 V rated value 2 hp 		
• at 690 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 6 A • at 60 V rated value 3 A • at 10 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 0 A • at 600 V rated value 1 A • at 60 V rated value 1 A • at 60 V rated value 1 A • at 24 V rated value 1 A • at 60 V rated value 1 A • at 24 V rated value 2 A • at 60 V rated value 2 A • at 10 V rated value 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.3 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 14 A • at 800 V rated value 14 A • at 600 V rated value 14 A • at 600 V rated value 14 A		
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• 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 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 0.3 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 14 A • at 600 V rated value 11 A yielded mechanical performance [hp] 11 A • for single-phase AC motor 11 A • at 100 V rated value 11 A yielded mechanical performance [hp] 1 hp • for single-phase AC motor 1 hp - at 230 V rated value 1 hp - at 230 V rated value 2 hp		
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operational current at DC-13 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 10 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 480 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value 11 A yielded mechanical performance [hp] • for single-phase AC motor - at 110/120 V rated value 1 hp - at 230 V rated value		
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• 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 value14 A• at 600 V rated value11 Ayielded mechanical performance [hp]11 A• for single-phase AC motor1 hp- at 110/120 V rated value1 hp- at 230 V rated value2 hp		
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• at 600 V rated value 11 A yielded mechanical performance [hp] - at 110/120 V rated value - at 110/120 V rated value 1 hp - at 230 V rated value 2 hp		
yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp — at 230 V rated value 2 hp		
for single-phase AC motor	• at 600 V rated value	11 A
— at 110/120 V rated value1 hp— at 230 V rated value2 hp		
— at 230 V rated value 2 hp	 for single-phase AC motor 	
	— at 110/120 V rated value	1 hp
● for 3-phase AC motor	— 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	5 hp
— at 460/480 V rated value	10 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: 25A (690V,100kA), BS88: 50A (415V,80kA)
 — with type of assignment 2 required 	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
 for short-circuit protection of the auxiliary switch 	gG: 10 A (500 V, 1 kA)
required	
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 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 mm ²), 2x (0,75 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
 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
solu stranded	0.5 4 mm ²
 finely stranded with core end processing 	0.5 4 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 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

	nded with core end processing 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)					
	for auxiliary contacts	uctor crocc	2x (20 16), 2x	(1014),		
section	ded connectable cond	uctor cross				
 for main contact 	ts		20 12			
 for auxiliary cor 	ntacts		20 12			
Safety related data						
product function						
 mirror contact a 	according to IEC 60947-	-4-1	Yes; with 3RH29			
	emand rate according t		1 000 000			
proportion of dange						
	d rate according to SN	31920	40 %			
	nd rate according to SN		73 %			
	low demand rate accord		100 FIT			
T1 value for proof tes IEC 61508	t interval or service life	according to	20 y			
protection class IP of 60529	on the front according	to IEC	IP20			
touch protection on	the front according to	IEC 60529	finger-safe, for v	ertical conta	act from the front	
suitability for use						
 safety-related s 	witching OFF		Yes			
Certificates/ approval	-					
General Product Ap						
(SP)		<u>Confirmatic</u>		D	KC	EHC
EMC	Functional Safety/Safety of Machinery	Declaration of Conformity		Test Certificates		
RCM	<u>Type Examination</u> <u>Certificate</u>		C EG-M		<u>Special Test Certific-</u> <u>ate</u>	Type Test Certific- ates/Test Report
Marine / Shipping						
ABS	BUREAU VERITAS		Llo Reg	vd's ister is	PRS	RINA
Marine / Shipping	other					
RMRS RMRS	<u>Confirmation</u>	DE	<u>Confir</u>	<u>nation</u>		
Further information Information- and Do	woloadcenter (Catalo	na Buashunaa				

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1AN21

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AN21

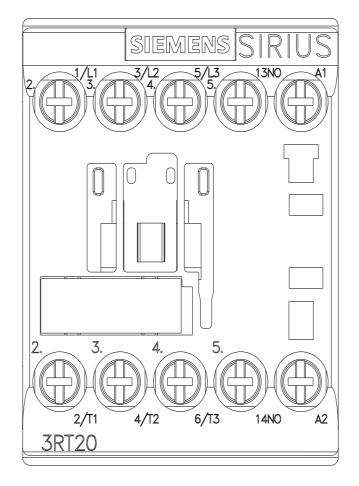
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1AN21&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AN21/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AN21&objecttype=14&gridview=view1



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