SIEMENS

Data sheet

3RT2024-1AV00



power contactor, AC-3 12 A, 5.5 kW / 400 V 1 NO + 1 NC, 400 V AC, 50 Hz 3-pole, Size S0 screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	SO
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 	0.9 W
 at AC in hot operating state per pole 	0.3 W
without load current share typical	7.6 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	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
mechanical service life (switching cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	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 	40 A
● at AC-1	
 — up to 690 V at ambient temperature 40 °C rated value 	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A
 at AC-4 at 400 V rated value 	12.5 A
 at AC-5a up to 690 V rated value 	35.2 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 	11.4 A
 up to 400 V for current peak value n=20 rated value 	11.4 A
 — up to 500 V for current peak value n=20 rated value 	11.3 A
— up to 690 V for current peak value n=20 rated value	9 A
 at AC-6a up to 230 V for current peak value n=30 rated value 	7.6 A
 up to 400 V for current peak value n=30 rated value 	7.6 A
 — up to 500 V for current peak value n=30 rated value 	7.6 A
 — up to 690 V for current peak value n=30 rated value 	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	10 mm ²
cycles at AC-4	
• at 400 V rated value	5.5 A
at 690 V rated value	5.5 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
- at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-1 	

— at 24 V rated value	35 A				
— at 110 V rated value	35 A				
— at 220 V rated value	35 A				
— at 440 V rated value	2.9 A				
— at 600 V rated value	1.4 A				
 at 1 current path at DC-3 at DC-5 					
— at 24 V rated value	20 A				
— at 110 V rated value	2.5 A				
— at 220 V rated value	1 A				
— at 440 V rated value	0.09 A				
— at 600 V rated value	0.06 A				
 with 2 current paths in series at DC-3 at DC-5 					
— at 24 V rated value	35 A				
— at 110 V rated value	15 A				
— at 220 V rated value	3 A				
— at 440 V rated value	0.27 A				
— at 600 V rated value	0.16 A				
 with 3 current paths in series at DC-3 at DC-5 					
— at 24 V rated value	35 A				
— at 110 V rated value	35 A				
— at 220 V rated value	10 A				
— at 440 V rated value	0.6 A				
— at 600 V rated value	0.6 A				
operating power					
• at AC-3					
— at 230 V rated value	3 kW				
— at 400 V rated value	5.5 kW				
— at 500 V rated value	5.5 kW				
— at 690 V rated value	7.5 kW				
• at AC-3e					
— at 230 V rated value	3 kW				
— at 400 V rated value	5.5 kW				
— at 500 V rated value	5.5 kW				
— at 690 V rated value	7.5 kW				
operating power for approx. 200000 operating cycles at AC-4					
• at 400 V rated value	2.6 kW				
• at 690 V rated value	4.6 kW				
operating apparent power at AC-6a					
• up to 230 V for current peak value n=20 rated value	4.5 kVA				
 up to 400 V for current peak value n=20 rated value 	7.8 kVA				
• up to 500 V for current peak value n=20 rated value	9.8 kVA				
• up to 690 V for current peak value n=20 rated value	10.7 kVA				
operating apparent power at AC-6a					
• up to 230 V for current peak value n=30 rated value	3 kVA				
• up to 400 V for current peak value n=30 rated value	5.2 kVA				
• up to 500 V for current peak value n=30 rated value	6.5 kVA				
• up to 690 V for current peak value n=30 rated value	9 kVA				
short-time withstand current in cold operating state up to 40 °C					
 limited to 1 s switching at zero current maximum 	210 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 5 s switching at zero current maximum 	210 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 10 s switching at zero current maximum 	162 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 30 s switching at zero current maximum 	103 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 60 s switching at zero current maximum 	88 A; Use minimum cross-section acc. to AC-1 rated value				
no-load switching frequency					
• at AC	5 000 1/h				
operating frequency					
• at AC-1 maximum	1 000 1/h				
• at AC-2 maximum	1 000 1/h				
• at AC-3 maximum	1 000 1/h				

 al AC-3e maximum al AC-3e maximum al AC-4 maximum al AC-4 maximum al AC -4 maximum	a at AC 2a mavimum	1 000 1/b
Control circuit/ Control Type of voltage of the control supply voltage AC evel 50 Hz relate value 400 V operating range factor control supply voltage rated 400 V value of magnit coil at AC 65 VA ent 50 Hz 65 VA Inductive power factor with closing power of the coil 65 VA inductive power factor with closing power of the coil 65 VA inductive power factor with closing power of the coil 62 e at 50 Hz 0.82 oppartent holding power of magnet coil at AC 6.4 e at 50 Hz 0.25 closing delay 8 40 ms e at AC 4 16 ms <td< td=""><td>• at AC-3e maximum</td><td>1 000 1/h</td></td<>	• at AC-3e maximum	1 000 1/h
Type of voltage of the control supply voltage AC control supply voltage it AC 400 V • at 00 1/2 rated value 65 VA • at 00 1/2 rated value 62 • at 00 1/2 rated value 62 • at 00 1/2 rated value 0.25 closing delay 4 16 ms • at AC 840 ms • at AC 840 ms • at AC 10 rated value • at AC 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A		300 1/n
control supply voltage at AC 400 V • at 50 Hz rade value 400 V operating range factor control supply voltage rated 400 V • at 50 Hz 0.8 1.1 apparent pick-up power damagnet coil at AC 65 VA • at 50 Hz 0.8 1.1 apparent pick-up power damagnet coil at AC 65 VA • at 50 Hz 0.8 1.1 apparent holding power of the coil 0.82 apparent holding power of the coil at AC 65 VA • at 50 Hz 0.25 • closing delay 8 40 ms • at 61 Hz 0.25 • closing delay 8 40 ms • at AC 8 40 ms opening delay 8 40 ms • at AC 8 40 ms opening delay 1 • at AC 1 number of K Contacts for auxiliary contacts 1 Instantaneous contact 1 Instantaneous contact for auxiliary contacts 1 operational current at AC-15 1 • at 500 V rated value 10 A • at 500 V rated value 10		
• at 30 hz rated value 400 V value of magnet coil at AC 08 1.1 • at 30 hz 08 1.1 • at 30 hz 08 1.1 • at 30 hz 08 V • at 30 hz 7.6 VA • at 30 hz 0.25 closing delay 0.25 • at AC 4 16 ms • at AC 4 16 ms • at AC 4 16 ms • at 30 hz 0 10 ms Standard A1 - A2 Availage contact number of NC contacts for availary contacts 1 operational current at AC-12 maximum 10 A operational current at AC-12 10 A • at 30 V rated value </td <td></td> <td>AC</td>		AC
operating range factor control supply voltage rated wite of magnet coil at AC 0.8 1.1 apparent pick-up power of magnet coil at AC 65 VA inductive power factor with closing power of the coil et 0.1 bz 0.82 apparent holding power of magnet coil at AC 0.8 40 ms et 30 Hz 0.25 closing delay 0.25 closing delay 0.25 closing delay 0.4 16 ms et 3.0 Hz 0.25 closing delay 0.1.0 ms et 3.0 Hz 0.25 closing delay 0.1.0 ms et 3.0 Hz 0.25 closing delay 0.1.0 ms et 3.0 Hz 0.25 closing filme 1010 ms control version of the switch operating mechanism 11 Auxillary circuit 1 Pumber of NO contacts for auxillary contacts 1 et 3.00 Y rated value 10 A operational current at AC-12 maximum 10 A operational current at DC-12 10 A et 3.00 Y rated value 2 A et 3.00 Y rated value 2 A <td></td> <td></td>		
value of magnite coli at AC et al 50 Hz apparent pick-up power of magnet coli at AC et 30 Hz at 50 Hz apparent holding power of magnet coli at AC et 30 Hz apparent holding power of magnet coli at AC et 30 Hz apparent holding power of magnet coli at AC et 30 Hz at 50 Hz at		400 V
• at 50 Hz 0.8 11 epprent pick-up power of magnet coil at AC 65 VA • at 50 Hz 65 VA inductive power factor with closing power of the coil 0.8 14 • at 50 Hz 7.6 VA inductive power factor with the holding power of the coil 0.8 16 Mz • at 50 Hz 7.6 VA inductive power factor with the holding power of the coil 0.8 40 ms • at 60 Hz 0.25 closing delay • at AC • at AC 8 40 ms • at AC 8 40 ms opening delay 10 10 ms • at AC 10 10 ms control version of the switch operating mechanism 1 Auxiliary circuit 10 A operational current at AC-15 1 • at 300 V rated value 10 A operational current at AC-15 10 A operational current at AC-12 maximum 10 A operational current at AC-12 10 A operational current at AC-12 10 A • at 300 V rated value 1A operational current at DC-12 10 A • at 400 V rated value 1A </th <th></th> <th></th>		
apparent pick-up power of magnet coil at AC 65 VA • at 50 Hz 65 VA Inductive power factor with closing power of the coil 0.82 • at 50 Hz 0.82 • at 50 Hz 0.82 • at 50 Hz 0.25 • closing delay 0.25 • at AC 840 ms • at AC 840 ms • at AC 940 ms • at AC 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 100 ms control version of the switch operating mechanism 11 number of NC contacts for auxiliary contacts 1 instanaeous contact 1 operational current at AC-15 1 • at 200 V rated value 2.A • at 600 V rated value 2.A • at 600 V rated value 3.A		
a t 50 Hz 65 VA Inductive power factor with closing power of the coll 0.82 apparent holding power of magnet coll at AC 0.82 a t 50 Hz 7.6 VA Inductive power factor with the holding power of the coll 0.25 closing delay 0.25 closing delay 0.47 at 30 Hz 0.25 closing delay 0.16 ms at AC 840 ms opening delay 1010 ms centrol version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1010 ms number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 10.A operational current at AC-12 0.4 at 300 V rated value 10.A operational current at AC-12 10.A operational current at AC-12 10.A at 300 V rated value 10.A operational current at DC-12 0.4 at 400 V rated value 10.A operational current at DC-12 0.4 at 600 V rated value 10.A at 400 V rat		0.8 1.1
inductive power factor with closing power of the coll • at 50 Hz 0.82 • at 50 Hz 0.25 closing delay 0.82 • at AC 1		25.1/4
• at 50 Hz 0.82 apparent holding power of magnet coil at AC 7.6 VA inductive power factor with the holding power of the coil 0.25 closing delay 0.25 • at 30 Hz 0.25 closing delay 840 ms • at AC 840 ms opening delay 1010 ms • at AC 1010 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary 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 300 V rated value 3 A • at 600 V rated value 3 A • at 600 V rated value 6 A • at 800 V rated value 6 A • at 200 V rated value 6 A • at 800 V rated value 6 A • at 800 V rated value 6 A • at 200 V rated value 6 A • at 800 V rated value 6 A • at 80 V rated value 6 A		05 VA
apparent holding power of magnet coil at AC 7.6 VA • at 50 Hz 7.6 VA Inductive power factor with the holding power of the coil 0.25 closing delay 0.25 • at AC 8 40 ms opening delay 010 ms • at AC 4 16 ms arcing time 1010 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary clrcuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-15 1 • at 300 V rated value 10 A operational current at AC-15 1 • at 300 V rated value 1A operational current at DC-12 1A • at 300 V rated value 1A operational current at DC-12 1A • at 80 V rated value 1A operational current at DC-12 1A • at 24 V rated value 1A operational current at DC-13 1A • at 80 V rated value 1A operational current at DC-13 1A • at 20 V rated val		0.00
• at 50 Hz 76 VA inductive power factor with the holding power of the coll 025 closing delay 0.25 • at AC 840 ms • at AC 416 ms arcing time 1010 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at DC-12 it 30 V rated value it 450 V rated value 1A ot 20 V rated value 6A it 610 V rated value 1A it 62 V rated value 1A it 610 V rated value 1A it 100 V rated value<		0.82
Inductive power factor with the holding power of the coll 0.25 closing delay 0.25 • at AC 840 ms • et AC 416 ms arcing time 1010 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-15 1 • at 300 V rated value 3A • at 400 V rated value 1A operational current at AC-15 1 • at 400 V rated value 1A operational current at AC-15 1A operational current at DC-12 1A • at 60 V rated value 6A • at 80 V rated value 6A • at 80 V rated value 1A operational current at DC-13 0A • at 80 V rated value 1A ot 80 V rated value 1A ot 80 V rated value 1		7 6 \/A
colsing delay 0.25 closing delay 840 ms • at AC 940 ms opening delay 416 ms • at AC 416 ms arcing time 1010 ms control version of the switch operating mechanism Standard A1 - A2 Avxiliary circuit 1 number of NC contacts for auxiliary contacts 1 nistantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A • at 230 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 0 A • at 240 V rated value 6 A • at 600 V rated value 1 A operational current at DC-13 0 A • at 250 V rated value 1 A operational current at DC-13 0 A • at 600 V rated value 2 A • at 250 V rated value 1 A operational current at DC-13 0 A • at 260 V rated value 1 A ot 620 V rated value 2 A		7.0 VA
closing delay at AC 840 ms opening delay 416 ms 416 ms arcing time 1010 ms 540 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 nistantaneous contact 1 operational current at AC-12 maximum 10 A et at 300 V rated value 2 A et at 600 V rated value 2 A et at 600 V rated value 2 A et at 90 V rated value 1 A operational current at DC-12 10 A et at 90 V rated value 1 A operational current at DC-13 1 A et at 600 V rated value 1 A operational current at DC-13 1 A et at 60 V rated value 2 A <		
• et AC 8 40 ms opening delay 4 • et AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxillary 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 3 A • at 600 V rated value 1 A operational current at DC-12 1 • at 600 V rated value 6 A • at 600 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 2 A • at 60 V rated value 1 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 60 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 20 V rated va	• at 50 Hz	0.25
• et AC 8 40 ms opening delay 4 • et AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxillary 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 3 A • at 600 V rated value 1 A operational current at DC-12 1 • at 600 V rated value 6 A • at 600 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 2 A • at 60 V rated value 1 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 60 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 20 V rated va	closing delay	
• et AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary 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 230 V rated value 10 A • at 300 V rated value 10 A • at 400 V rated value 10 A • at 230 V rated value 10 A • at 24 V rated value 10 A • at 24 V rated value 10 A • at 250 V rated value 10 A • at 260 V rated value 10 A • at 27 V rated value 6 A • at 28 V rated value 10 A • at 29 V rated value 10 A • at 20 V rated value 10 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 10 A • at 20 V rated value 10 A		8 40 ms
• et AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary 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 230 V rated value 10 A • at 300 V rated value 10 A • at 400 V rated value 10 A • at 230 V rated value 10 A • at 24 V rated value 10 A • at 24 V rated value 10 A • at 250 V rated value 10 A • at 260 V rated value 10 A • at 27 V rated value 6 A • at 28 V rated value 10 A • at 29 V rated value 10 A • at 20 V rated value 10 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 10 A • at 20 V rated value 10 A	opening delay	
Control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit Image: Control to Contracts for auxiliary contracts 1 number of NC contracts for auxiliary contracts 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 operational current at AC-12 maximum 10 A operational current at DC-12 1 e at 60 V rated value 10 A e at 24 V rated value 10 A e at 60 V rated value 6 A e at 120 V rated value 10 A e at 220 V rated value 10 A e at 220 V rated value 10 A e at 60 V rated value 10 A <tr< td=""><td></td><td>4 16 ms</td></tr<>		4 16 ms
Auxiliary circuit 1 number of NC contacts for auxiliary contacts 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 10 A e at 230 V rated value 3 A e at 600 V rated value 2 A e at 600 V rated value 10 A operational current at DC-12 10 A e at 24 V rated value 6 A e at 24 V rated value 6 A e at 24 V rated value 10 A e at 25 V rated value 10 A e at 260 V rated value 6 A e at 20 V rated value 10 A e at 600 V rated value 10 A e at 20 V rated value 10 A e at 20 V rated value 10 A e at 40 V rated value 10 A e at 20 V rated value 10 A e at 22 V rated value 10 A e at 60 V rated value 10 A	arcing time	10 10 ms
number of NC contacts for auxiliary contacts instantaneous contact 1 number of NC contacts for auxiliary contacts instantaneous contact 1 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 2 A • at 600 V rated value 6 A • at 24 V rated value 6 A • at 100 V rated value 6 A • at 25 V rated value 1 A operational current at DC-12 6 A • at 24 V rated value 6 A • at 100 V rated value 2 A • at 25 V rated value 2 A • at 25 V rated value 2 A • at 20 V rated value 0.15 A operational current at DC-13 0 • at 20 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.4 A • at 60 V rated value 0.1 A contact reliability of auxillary contacts 1 faulty switching per 100	control version of the switch operating mechanism	Standard A1 - A2
number of NC contacts for auxiliary contacts instantaneous contact 1 number of NC contacts for auxiliary contacts instantaneous contact 1 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 2 A • at 600 V rated value 6 A • at 24 V rated value 6 A • at 100 V rated value 6 A • at 25 V rated value 1 A operational current at DC-12 6 A • at 24 V rated value 6 A • at 100 V rated value 2 A • at 25 V rated value 2 A • at 25 V rated value 2 A • at 20 V rated value 0.15 A operational current at DC-13 0 • at 20 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.4 A • at 60 V rated value 0.1 A contact reliability of auxillary contacts 1 faulty switching per 100	Auxiliary circuit	
number of NO contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 230 V rated value 3 A • at 500 V rated value 2 A • at 500 V rated value 10 A operational current at DC-12 1 A • at 24 V rated value 10 A • at 24 V rated value 10 A • at 24 V rated value 6 A • at 125 V rated value 6 A • at 125 V rated value 10 A • at 220 V rated value 10 A • at 125 V rated value 2 A • at 20 V rated value 10 A • at 212 V rated value 10 A • at 125 V rated value 2 A • at 20 V rated value 10 A • at 60 V rated value 10 A • at 40 V rated value 10 A • at 60 V rated value 2 A • at 60 V rated value 1 A • at 60 V rated value 1 A • at 60 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA)	number of NC contacts for auxiliary contacts	1
Instantaneous contact 0 operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 230 V rated value 10 A • at 400 V rated value 3 A • at 500 V rated value 1 A operational current at DC-12 1 A • at 40 V rated value 6 A • at 500 V rated value 6 A • at 20 V rated value 6 A • at 20 V rated value 6 A • at 20 V rated value 1 A operational current at DC-12 0 A • at 40 V rated value 6 A • at 40 V rated value 6 A • at 40 V rated value 0 A • at 20 V rated value 0 A • at 20 V rated value 0.15 A operational current at DC-13 0 A • at 40 V rated value 2 A • at 40 V rated value 2 A • at 40 V rated value 2 A • at 20 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		1
operational current at AC-15 • at 230 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 640 V rated value • at 44 V rated value • at 45 V rated value • at 46 V rated value • at 47 V rated value • at 20 V rated value • at 220 V rated value • at 24 V rated value • at 45 V rated value • at 46 V rated value • at 220 V rated value • at 80 V rated value <td></td> <td></td>		
• 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 690 V rated value 6 A • at 60 V rated value 6 A • at 70 V rated value 6 A • at 70 V rated value 6 A • at 70 V rated value 7 A • at 20 V rated value 7 A • at 60 V rated value 7 A • at 20 V rated value 7 A • at 20 V rated value 7 A • at 10 V rated value 7 A • at 20 V rated value 7 A • at 20 V rated value 7 A • at	operational current at AC-12 maximum	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	operational current at AC-15	
• 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 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 10 V rated value 6 A • at 25 V rated value 3 A • at 25 V rated value 2 A • at 25 V rated value 0.15 A operational current at DC-13 0 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 24 V rated value 10 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 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.1 A • at 220 V rated value 0.1 A • at 600 V rated value 0.1 A • at 600 V rated value 11 A • at 80 V rated value 11 A • at 80 V rated value 11 A • at 80 V rated value	 at 230 V rated value 	10 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 60 V rated value 6 A • at 10 V rated value 2 A • at 220 V rated value 1 A • at 220 V rated value 0.15 A operational current at DC-13 0 A • at 24 V rated value 10 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 24 V rated value 10 A • at 24 V rated value 0.15 A operational current at DC-13 0 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.9 A • at 25 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 11 A • at 600 V rated value 11 A • at 80 V rated value 11 A • at 80 V rated value 11 A • at 600 V rated value	 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 25 V rated value2 A• at 220 V rated value0.15 Aoperational current at DC-13• at 24 V rated value10 A• at 24 V rated value2 A• at 24 V rated value0.15 Aoperational current at DC-13• at 24 V rated value2 A• at 48 V rated value2 A• at 10 V rated value2 A• at 110 V rated value2 A• at 220 V rated value0.9 A• at 220 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)ULCSA ratings11 Ayielded mechanical performance [hp]11 A• for single-phase AC motor1 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 110 V rated value3 A• at 220 V rated value2 A• at 220 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 value10 A• at 48 V rated value2 A• at 48 V rated value10 A• at 48 V rated value2 A• at 24 V rated value2 A• at 24 V rated value2 A• at 24 V rated value0.9 A• at 25 V rated value0.9 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value11 A• at 480 V rated value11 A• at 480 V rated value11 A• at 480 V rated value11 A• at 600 V rated value11 A• at 101/120 V rated value1 hp	• at 690 V rated value	1 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 600 V rated value0.15 Aoperational current at DC-130• at 60 V rated value10 A• at 80 V rated value2 A• at 60 V rated value2 A• at 48 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 220 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 ratings11 A• at 600 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 600 V rated value <td>operational current at DC-12</td> <td></td>	operational current at DC-12	
e at 60 V rated value6 Ae at 110 V rated value3 Ae at 125 V rated value2 Ae at 220 V rated value1 Ae at 600 V rated value0.15 Aoperational current at DC-1310 Ae at 60 V rated value2 Ae at 110 V rated value0.9 Ae at 220 V rated value0.3 Ae at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)ULCSA ratingsfull-load current (FLA) for 3-phase AC motore at 600 V rated value11 Ayielded mechanical performance [hp]11 Ayielded mechanical performance [hp]11 Ayielded mechanical performance [hp]1 hp	 at 24 V rated value 	10 A
• at 110 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 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 25 V rated value2 A• at 110 V rated value1 A• at 25 V rated value0.9 A• at 220 V rated value0.3 A• at 220 V rated value0.1 A• at 600 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings11 Afull-load current (FLA) for 3-phase AC motor11 A• at 600 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 100 V rated value11 A• at 600 V rated	 at 48 V rated value 	6 A
• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 Aoperational current at DC-13-• at 24 V rated value10 A• at 24 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 10 V rated value0.9 A• at 220 V rated value0.3 A• at 200 V rated value0.1 A• at 200 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings11 A• at 600 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 100 V rated value11 A• at 600 V rated value11 A	 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 48 V rated value at 60 V rated value at 60 V rated value 2 A at 10 V rated value 2 A at 110 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 full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A at 600 V rated value 11 A ot at 600 V rated value 11 A at 600 V rated value 11 A bigle-phase AC motor at 100/120 V rated value 1 hp 	 at 110 V rated value 	3 A
• at 600 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 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• at 600 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings11 Afull-load current (FLA) for 3-phase AC motor11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 100 V rated value11 A	 at 125 V rated value 	2 A
operational current at DC-1310 A• at 24 V rated value10 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 value0.3 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 value11 A• at 600 V rated value11 Ayielded mechanical performance [hp]• for single-phase AC motor- at 110/120 V rated value1 hp	• at 220 V rated value	
• at 24 V rated value10 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 value0.3 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 600 V rated value11 A• at 10/120 V rated value1 hp		0.15 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 value0.3 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 value11 A• at 600 V rated value11 Ayielded mechanical performance [hp]11 A• for single-phase AC motor1 hp	-	
• at 60 V rated value2 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 A DUL/CSA ratings full-load current (FLA) for 3-phase AC motor• at 480 V rated value11 A• at 600 V rated value11 Ajelded mechanical performance [hp]• for single-phase AC motor11 A- at 110/120 V rated value1 hp	• at 24 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 600 V rated value 11 A at 600 V rated value 11 A in the set of the set	• at 48 V rated value	2 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 value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 Ai for single-phase AC motor1 h• for single-phase AC motor1 h	• at 60 V rated value	
• 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 ratings11 A• at 480 V rated value11 A• at 480 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 600 V rated value11 A• at 100 V rated value11 A• for single-phase AC motor1 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 motor11 A• at 480 V rated value11 A• at 600 V rated value11 Ayielded mechanical performance [hp]11 A• for single-phase AC motor1 hp	• at 125 V rated value	
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 11 A • 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 220 V rated value	
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 1 hp		
full-load current (FLA) for 3-phase AC motor 11 A • 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 1 hp		1 faulty switching per 100 million (17 V, 1 mA)
• at 480 V rated value 11 A • at 600 V rated value 11 A yielded mechanical performance [hp] 11 A • for single-phase AC motor		
• at 600 V rated value 11 A yielded mechanical performance [hp] - • for single-phase AC motor - at 110/120 V rated value 1 hp		
yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp	• at 480 V rated value	11 A
for single-phase AC motor at 110/120 V rated value 1 hp	• at 600 V rated value	11 A
— at 110/120 V rated value 1 hp	yielded mechanical performance [hp]	
	 for single-phase AC motor 	
- at 230 V rated value 2 hp		
	— at 230 V rated value	2 hp
● for 3-phase AC motor	 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 / P600			
Short-circuit protection				
design of the fuse link				
 for short-circuit protection of the main circuit 				
 — with type of coordination 1 required 	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (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			
side-by-side mounting	according to DIN EN 60715			
height	85 mm			
width	45 mm			
depth	45 mm 97 mm			
•				
required spacing				
 with side-by-side mounting — forwards 	10 mm			
	10 mm			
— upwards				
— downwards — at the side	10 mm 0 mm			
	0 mm			
for grounded parts	10			
— forwards	10 mm			
— upwards	10 mm 6 mm			
— at the side				
— downwards	10 mm			
for live parts	10			
— 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 (1 2.5 mm²), 2x (2.5 10 mm²)			
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²			
at AWG cables for main contacts	2x (16 12), 2x (14 8)			
connectable conductor cross-section for main contacts				
• solid	1 10 mm²			
• stranded	1 10 mm²			
 finely stranded with core end processing 	1 10 mm²			
connectable conductor cross-section for auxiliary				
contacts				
• solid or stranded	0.5 2.5 mm ²			
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)			

	nded with core end proc	essing	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)				
	at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross approximation		2X (20 10), 2	2x (20 16), 2x (18 14)			
• for main contact							
 for auxiliary co 							
Safety related data							
product function							
-	according to IEC 60947-	-4-1	Yes				
	demand rate according t		450 000				
proportion of dange		0 011 01020	400 000				
	nd rate according to SN	31920	40 %				
	and rate according to SN		73 %				
	low demand rate accord		100 FIT				
	st interval or service life	according to	20 y				
protection class IP 60529	on the front according	to IEC	IP20				
touch protection on	the front according to	IEC 60529	finger-safe, for	vertical conta	ict from the front		
suitability for use							
 safety-related s 	switching OFF		Yes				
Certificates/ approva	ls						
General Product A							
Contrain Froduct A	pprovu						
(SP)	<u>Confirmation</u>		(Ĩ	KC	EHC	
EMC	Functional Safety/Safety of Machinery	Declaration of	of Conformity		Test Certificates		
RCM	<u>Type Examination</u> <u>Certificate</u>	UK CA		G-Konf.	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	
Marine / Shipping							
ABS	B U REAU VERITAS		R	loyd's egister us	RINA	RMRS	
other							
<u>Confirmation</u>		<u>Confirmation</u>	<u>n</u>				
Further information Information- and Downloadcenter (Catalogs, Brochures,)							
		gs, Brochures,.)				
https://mall.industry.s	Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2024-1AV00 Cax online generator						

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2024-1AV00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-1AV00

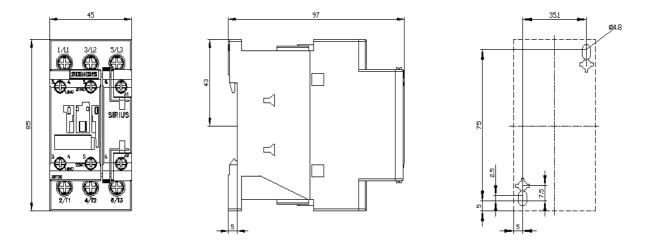
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2024-1AV00&lang=en

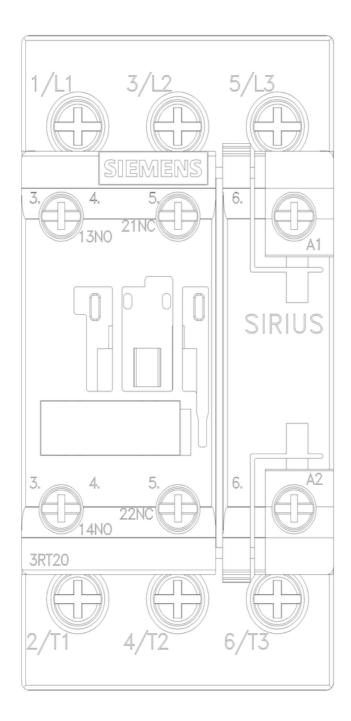
Characteristic: Tripping characteristics, I²t, Let-through current

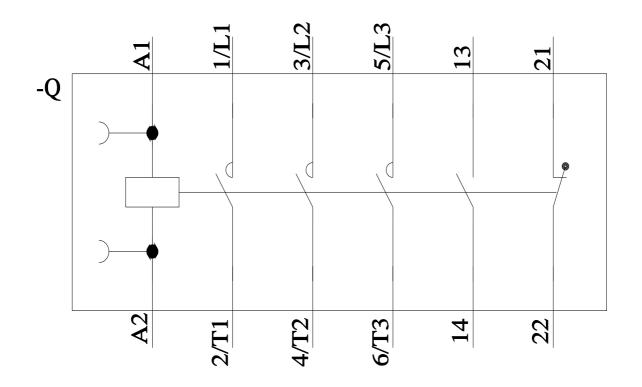
https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-1AV00/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2024-1AV00&objecttype=14&gridview=view1







last modified:

6/2/2022 🖸