SIEMENS

Data sheet 3RT2024-1AT60



Cont., AC-3, 5.5 kW / 400 V, 1 NO + 1 NC, AC 600 V, 60 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	S0
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	0.9 W
 at AC in hot operating state per pole 	0.3 W
without load current share typical	7.2 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 $^{\circ}\text{C}$ 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	0.071
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
	1A
— at 440 V rated value — at 600 V rated value	1 A 0.8 A
	U.U 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-2 at 400 V rated value	5.5 kW
• 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-9 maximum ■ at BC-9 voltage of the control supply voltage ■ at 80 Hz rated value ● at 80 Hz rated value ■ at 80 Hz rated value ■ at 80 Hz rated value ■ at 80 Hz ■ at 80 H	at AC 2 magain	4 000 4/h
■ at AC-4 maximum Supple of voltage of the control supply voltage AC	• at AC-3 maximum	1 000 1/h
Section Control Supply voltage AC		
type of vottage of the control supply voltage control supply voltage at AC at 00 1th: rated value operating range factor control supply voltage rated value of magnet coil at AC at 00 1th: rated value operating range factor control supply voltage rated value of magnet coil at AC at 00 1th: rated value operating range factor with closing power of the coil at 00 1th: rated value operating power factor with closing power of the coil at 00 1th: rated value operating delay at AC at 00 1th: rated value operational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-12 value at 600 V at 600 V 0.85 1.1 73 VA 73 VA 73 VA 74 VA 75 VA 76 VA 78 VA 78 VA 79 V		300 1/n
Control supply voltage at AC		10
		AC
operating range factor control supply voltage rated value of magnet coal at AC • at 60 Hz apparent pick-up power of magnet coll at AC • at 60 Hz other power factor with closing power of the coll • at 60 Hz apparent holding power of magnet coll at AC • at 60 Hz apparent holding power of magnet coll at AC • at 60 Hz apparent holding power of magnet coll at AC • at 60 Hz closing delay • at 60 Hz closing delay • at AC arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts operational current at AC-12 maximum operational current at AC-15 maximum operational current at AC-15 maximum operational current at AC-16 maximum operational current at AC-17 maximum operational current at AC-18 maximum operational current at AC-19 maximum operational current at DC-12 • at 24 V rated value • at 60 V rated va		
value of magnet coil at AC		600 V
a # 160 Hz apparent pick-up power of magnet coll at AC a # 160 Hz inductive power factor with closing power of the coll apparent holding power of magnet coll at AC a # 160 Hz apparent holding power of magnet coll at AC a # 160 Hz a # 160		
apparent pick-up power of magnet coil at AC at 60 Hz inductive power factor with closing power of the coil at 60 Hz apparent holding power of magnet coil at AC at 60 Hz at 60 Hz closing delay at AC be at AC at	_	0.85 1.1
at 80 Hz		0.00 1.1
Inductive power factor with closing power of the coil at 460 Hz at 60 Hz at 60 Hz closing delay at 80 Hz control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact instantaneous contact unumber of NC contacts for auxiliary contacts instantaneous contact instantaneous contact instantaneous contact operational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-15 at 300 V rated value at 450 V rated va		73.\/Δ
apparent holding power of magnet coil at AC at 80 Hz inductive power factor with the holding power of the coil at 80 Hz closing delay at 80 Hz cospening delay at AC sering time control version of the switch operating mechanism Slandard A1 - A2 Auxillary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts 1 number of NC contact value 2 at 800 V rated value 2 at 800 V rated value 3 at 600 V rated value 3 at 600 V rated value 4 at 600 V rated value 4 at 600 V rated value 4 at 600 V rated value 5 at 600 V rated value 5 at 600 V rated value 6 at 600 V rated value 7 at 600 V rated value 8 at 600 V rated value 9 at 600 V rated value 9 at 600 V ra		10 VA
apparent holding power of magnet coil at AC • at 60 Hz Inductive power factor with the holding power of the coil • at 60 Hz closing delay • at AC • at		0.76
at 160 Hz inductive power factor with the holding power of the coll at 60 Hz closing delay at AC aring time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact 1 number of NO contacts for auxiliary contacts instantaneous contact 1 number of NO contacts for auxiliary contacts instantaneous contact 1 number of NO contacts for auxiliary contacts instantaneous contact 1 number of NO contacts for auxiliary contacts instantaneous contact 1 number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 1 10 A 2 A 3 A 4 1230 V rated value 2 A 4 180 V rated value 5 180 V rated value 6 180 V rated value 7 180 V rated value 8 180 V rated value 9 180 V rated value 180 V rate		0.10
inductive power factor with the holding power of the coll at 60 Hz closing delay at AC arcing time at AC arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 at 230 V rated value at 400 V rated value at 400 V rated value at 480 V rated value at 48 V rated value at 125 V rated value at 126 V rated value at 127 V rated value at 128 V rated value at 129 V rated value at 129 V rated value at 129 V rated value at 120 V rated value at 125 V rated value at 125 V rated value at 126 V rated value at 127 V rated value at 128 V rated value at 129 V rated valu		7 2 VA
a d 60 Hz 0.28 closing delay a d AC 8 40 ms opening delay a d AC 4 16 ms 10 10 ms opening delay a d AC 4 16 ms opening delay a d AC d 16 ms opening delay opening delay d 16 ms opening delay		1.2 VA
closing delay		
• at AC opening delay • at AC arcing time control version of the switch operating mechanism Auxillary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 650 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 120 V rated value • at 120 V rated value • at 24 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 30 V rated value • at 60 V rated value • at 60 V rated value • at 10 V rated value • at 220 V rated value • at 48 V rated value • at 220 V rated value • at 60 V rated value	● at 60 Hz	0.28
e at AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous 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 2 A • at 690 V rated value 2 A • at 690 V rated value 6 A • at 690 V rated value 6 A • at 4 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 7 A • at 10 V rated value 7 A • at 12 V rated value 9 A • at 12 V rated value 1 A • at 12 V rated value 1 A • at 12 V rated value 1 A • at 10 V rated value 1 A • at 20 V rated value 1 A • at 48 V rated value 1 A • at 50 V rated value 1 A • at 60 V rated value 1 A • at 10 V rated value 1 A • at 10 V rated value 1 A • at 10 V rated value 1 A • at 60 V rated valu	closing delay	
at AC 4 16 ms 10 10 ms	• at AC	8 40 ms
at AC 4 16 ms 10 10 ms	opening delay	
control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 1220 V rated value • at 220 V rated value • at 220 V rated value • at 3A • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 3A • at 250 V rated value • at 260 V rated value • at 300 V rated value • at 48 V rated value • at 60 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 125 V rated value • at 125 V rated value • at 125 V rated value • at 120 V rated value • at 600 V rated val		4 16 ms
Auxillary circuit number of NC contacts for auxillary contacts 1	arcing time	10 10 ms
Auxillary circuit number of NC contacts for auxillary contacts 1	-	Standard A1 - A2
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 480 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 24 V rated value • at 250 V rated value • at 110 V rated value • at 250 V rated value • at 260 V rated value • at 270 V rated value • at 28 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 300 V rated value • at 48 V rated value • at 600 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 48 V rated value • at 50 V rated value • at 50 V rated value • at 60 V rated value • at		
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operational current at AC-15 10 A e at 230 V rated value 3 A e at 400 V rated value 2 A e at 500 V rated value 1 A e at 690 V rated value 1 A operational current at DC-12 1 A e at 24 V rated value 6 A e at 48 V rated value 6 A e at 60 V rated value 3 A e at 10 V rated value 2 A e at 125 V rated value 1 A e at 220 V rated value 1 A e at 200 V rated value 0.15 A operational current at DC-13 10 A e at 48 V rated value 2 A e at 60 V rated value 2 A e at 60 V rated value 2 A e at 60 V rated value 2 A e at 110 V rated value 1 A e at 220 V rated value 0.9 A e 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 11 A full-load current (FLA) for 3-phase AC motor 1 A e at 4	number of NO contacts for auxiliary contacts	1
operational current at AC-15 at 230 V rated value 10 A at 400 V rated value 3 A at 500 V rated value 2 A at 690 V rated value 1 A operational current at DC-12 1 A at 24 V rated value 6 A at 48 V rated value 6 A at 60 V rated value 3 A at 10 V rated value 3 A at 125 V rated value 1 A at 220 V rated value 1 A at 600 V rated value 0.15 A operational current at DC-13 10 A at 48 V rated value 2 A at 60 V rated value 2 A at 60 V rated value 2 A at 10 V rated value 1 A at 125 V rated value 0.3 A at 220 V rated value 0.3 A at 200 V rated value 0.1 A at 480 V rated value 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 11 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 11 A at 480 V rated value 1 faulty switching per 100 million (17 V, 1 mA)<		10 A
 at 230 V rated value at 400 V rated value at 690 V rated value at 24 V rated value at 24 V rated value at 48 V rated value at 60 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 at 24 V rated value at 25 V rated value at 20 V rated value at 24 V rated value at 25 V rated value at 20 V rated value at 20 V rated value at 30 V rated value at 20 V rated value at 30 V rated value at 30 V rated value at 600 V rated v		
• at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 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 200 V rated value • at 200 V rated value • at 200 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 120 V rated value • at 220 V rated value • at 220 V rated value • at 320 V rated value • at 125 V rated value • at 180 V rated value • at 600 V rated value	·	10 A
• at 690 V rated value	at 400 V rated value	3 A
operational current at DC-12 • at 24 V rated value	at 500 V rated value	2 A
 at 24 V rated value at 48 V rated value 6 A at 60 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 25 V rated value at 2600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 24 V rated value at 60 V rated value at 25 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 20 V rated value at 20 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 10 V rated value at 11 A 	at 690 V rated value	1 A
 at 24 V rated value at 48 V rated value 6 A at 60 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 25 V rated value at 2600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 24 V rated value at 60 V rated value at 25 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 20 V rated value at 20 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 10 V rated value at 11 A 	operational current at DC-12	
• at 60 V rated value	at 24 V rated value	10 A
 at 110 V rated value at 125 V rated value at 220 V rated value 1 A at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 48 V rated value at 60 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 200 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 10 A yielded mechanical performance [hp] for single-phase AC motor at 10 A at 110/120 V rated value at 110/120 V rated value 	at 48 V rated value	6 A
 at 125 V rated value at 220 V rated value 1 A at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 48 V rated value at 60 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 200 V rated value at 200 V rated value at 300 V rated value at 480 V rated value at 600 V rated value at 600 V rated value at 11 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 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 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 220 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 7 hp 	at 110 V rated value	3 A
 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 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 600 V rated value at 700 V rated value at 11 A at 600 V rated value at 11 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 		2 A
operational current at DC-13 • at 24 V rated value • at 48 V rated value • at 60 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 • at 600 V rated value • at 600 V rated value contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 11 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp	at 220 V rated value	1 A
operational current at DC-13 • at 24 V rated value • at 48 V rated value • at 60 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 • at 600 V rated value • at 600 V rated value contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 11 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp	at 600 V rated value	0.15 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 600 V rated value at 600 V rated value at 10/120 V rated value hp 		
 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 1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 	•	10 A
 at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 10/120 V rated value 1 hp 	at 48 V rated value	
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 		
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 	at 110 V rated value	1 A
 at 220 V rated value at 600 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 	at 125 V rated value	0.9 A
 at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 		0.3 A
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 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 • at 480 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 480 V rated value at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 	UL/CSA ratings	
● at 600 V rated value yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value 11 A 11 A 1 hp		
yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value 1 hp		
 for single-phase AC motor — at 110/120 V rated value 1 hp 		11 A
— at 110/120 V rated value 1 hp		
'		
— at 230 V rated value 2 hp	— at 110/120 V rated value	1 hp
	— at 230 V rated value	2 hp

 for 3-phase AC motor 	
— at 200/208 V rated value	3 hp
 at 220/230 V rated value 	3 hp
 — at 460/480 V rated value 	7.5 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / 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 required 	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
• side-by-side mounting	Yes
height	85 mm
width	45 mm
depth	97 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 Screw-type terminals
type of connectable conductor cross-sections	Co. C. Operation
• 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
	1 10 mm²
• stranded	1 10 mm²
	1 10 1111117
finely stranded with core end processing connectable conductor cross-section for auxiliary contacts	
connectable conductor cross-section for auxiliary contacts	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts • solid or stranded	0.5 2.5 mm ²
connectable conductor cross-section for auxiliary contacts	0.5 2.5 mm² 0.5 2.5 mm²

— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 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)
AWG number as coded connectable conductor cross section	
 for main contacts 	16 8
 for auxiliary contacts 	20 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
B10 value with high demand rate according to SN 31920	450 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
 safety-related switching OFF 	Yes

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



Functional

EMC Safety/Safety of Declaration of Conformity Test Certificates

Machinery



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













other

Confirmation



urther 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=3RT2024-1AT60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2024-1AT60

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

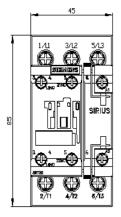
https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-1AT60

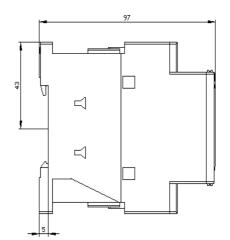
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2024-1AT60&lang=en

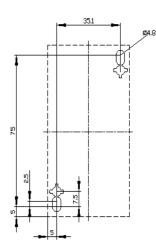
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-1AT60/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2024-1AT60&objecttype=14&gridview=view1







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