SIEMENS

Data sheet 3RT2025-1AH00



power contactor, AC-3 17 A, 7.5 kW / 400 V 1 NO + 1 NC, 48 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	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 	1.8 W
 at AC in hot operating state per pole 	0.6 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 $^{\circ}\text{C}$ rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
• at AC-5a up to 690 V rated value	35.2 A
at AC-5b up to 400 V rated value	14.1 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 	11.4 A
 up to 690 V for current peak value n=20 rated value at AC-6a 	11.3 A
— 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	7.7 A
• at 690 V rated value	7.7 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	1 A
— 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
	0.0 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	0.071
at AC-2 at 400 V rated value	7.5 kW
• at AC-3	1.0 KVV
— 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	11 kW
• at AC-3e	A DAM
— at 230 V rated value	4 kW
— at 400 V rated value	4.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	3.5 kW
at 400 V rated value at 690 V rated value	6 kW
operating apparent power at AC-6a	V
• up to 230 V for current peak value n=20 rated value	4.5 kVA
 up to 250 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value 	7.8 kVA
 up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value 	9.9 kVA
 up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 	13.6 kVA
	IJ.U KVA
operating apparent power at AC-6a	3 kVA
up to 230 V for current peak value n=30 rated value	
• 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	6.6 kVA
up to 690 V for current peak value n=30 rated value short time withstand current in said expressing state.	9.1 kVA
short-time withstand current in cold operating state up to 40 °C	
Iimited to 1 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 5 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
limited to 3 s switching at zero current maximum	180 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum	115 A; Use minimum cross-section acc. to AC-1 rated value
limited to 50 s switching at zero current maximum limited to 60 s switching at zero current maximum	96 A; Use minimum cross-section acc. to AC-1 rated value
	oon, ood milliman cross-section acc. to Ac-1 rated value
no-load switching frequency	5 000 1/h
• at AC	3 000 1/II
operating frequency	1,000,1/b
• at AC-1 maximum	1 000 1/h
at AC-2 maximum	1 000 1/h

		1000 11
** AC-4 maximum 300 fth Control Supply Voltage of the control supply voltage of the control supply voltage at AC ** 50 Ft. Entel voltage of the control supply voltage at AC ** 50 Ft. Entel voltage of the control supply voltage rated value of magnet coil at AC ** 50 Ft. Entel voltage of the coil at AC ** 50 Ft. Ente	• at AC-3 maximum	1 000 1/h
AC AC AC AC AC AC AC AC		
ype of voltage of the control supply voltage control supply voltage at AC • at 50 1t2 indictive value • at 50 1t2 indictive power factor with closing power of the coil • at 50 1t2 • closing delay • at AC • at 1tAC •		300 1/h
control supply voltage at AC • at 60 Hz trade value operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz spanaron pick-up power of magnet coil at AC • at 60 Hz inductive power factor with closing power of the coil • at 50 Hz spanaron holding power of magnet coil at AC • at 60 Hz spanaron holding power of magnet coil at AC s	Control circuit/ Control	
• at 50 Hz rated value operating range factor control supply voltage rated value of magnet coll at AC • at 50 Hz apparent pick-up power of magnet coll at AC • at 50 Hz apparent holding power of magnet coll at AC • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at 50 Hz • at AC • at AC • at 50 Hz • at AC • at 50 Hz • at AC •	type of voltage of the control supply voltage	AC
operation angle factor control supply voltage rated value of magnet coil at AC at 50 Hz apparent pick-up power of magnet coil at AC at 50 Hz inductive power factor with closing power of the coil at 50 Hz apparent holding power of magnet coil at AC at 50 Hz apparent holding power of magnet coil at AC at 50 Hz apparent holding power of magnet coil at AC at 50 Hz closing delay at 60 Hz at 50 Hz closing delay at 61 AC arcing time at AC arcing time and Control version of the switch operating mechanism Auxiliarry circuit number of NC contracts for auxiliarry contacts mumber of NC contracts for auxiliarry contacts at 50 Hz at 50 Hz at 50 Hz at 50 Hz arcing time and 50 Hz arcing time and 61 AC arcing t	control supply voltage at AC	
value of magnet coil at AC a at 50 Hz apparent pick-up power faminet coil at AC at 50 Hz inductive power factor with closing power of the coil at 50 Hz apparent holding power of magnet coil at AC at 50 Hz apparent holding power of magnet coil at AC at 50 Hz apparent holding power of magnet coil at AC at 50 Hz closing delay at AC at 50 Hz closing delay at AC arcing time for at AC arcing time for at AC arcing time for a the switch operating mechanism Avuiliary account Avuiliary account Avuiliary account Turber of NC contects for auxiliary contacts instantaneous contact rumber of NC contects for auxiliary contacts instantaneous contact rumber of NC contects for auxiliary contacts instantaneous contact operational current at AC-12 maximum poreational current at AC-15 at 430 V rated value at 400 V rated value at 480 V r	 at 50 Hz rated value 	48 V
■ at 50 Hz apparent pick-up power of magnet coil at AC ■ at 50 Hz inductive power factor with closing power of the coil ■ at 50 Hz apparent holding power of magnet coil at AC ■ at 50 Hz inductive power factor with the holding power of the coil ■ at 50 Hz inductive power factor with the holding power of the coil ● at 50 Hz closing delay ■ at AC arcing lide ■ at AC arcing time control version of the switch operating mechanism Auxiliary circuit rumber of NC contacts for auxiliary contacts ischaritarizedus confact operational current at AC-12 maximum operational current at AC-15 ■ at 230 V rated value ■ at 600 V rated val		
apparent pick-up power of magnet coil at AC		
Inductive power factor with closing power of the coil at 50 Hz		0.8 1.1
Inductive power factor with closing power of the coil ■ at 50 Hz ■ at 50 Hz 1 closing delay ■ at 4AC popering delay ■ at AC popering delay popering delay popering delay popering delay popering delay ■ at AC popering delay popering delay ■ at AC popering delay popering delay ■ at AC popering delay popering delay ■ at AC popering delay ■ at AC popering delay popering delay ■ at AC popering delay poper	apparent pick-up power of magnet coil at AC	
at 50 Hz apparent holding power of magnet coil at AC at 50 Hz at 50 Hz apparent holding power of the coil at 50 Hz at 50 Hz at 50 Hz at 50 Hz apparent holding power of the coil at 50 Hz apparent holding power of the coil at 50 Hz apparent holding power of the coil at 50 Hz apparent holding power of the coil at 50 Hz apparent holding power of the coil at 50 Hz at AC arcing time arcing t	● at 50 Hz	65 VA
apparent holding power of magnet coil at AC • at 50 Hz 1 at 50 Hz 1 at 50 Hz 2 closing delay • at AC • at AC opening delay • at AC opening delay • at AC opening of the switch operating mechanism control version of the switch operating mechanism control version of the switch operating mechanism Auxiliny direcuit Instantaneous contact Instantaneous co	inductive power factor with closing power of the coil	
at 50 Hz		0.82
Inductive power factor with the holding power of the coll	apparent holding power of magnet coil at AC	
at 50 Hz 0.25 closing delay at 1 AC 8 40 ms opening delay at 1 AC 4 16 ms one to make a second version of the switch operating mechanism 10 10 ms control version of the switch operating mechanism Auxiliary circuit rumber of NC contacts for auxiliary contacts 1 instantaneous contact rumber of NC contacts for auxiliary contacts 1 instantaneous contact 1 instantaneous co		7.6 VA
• at 50 Hz closing delay • at AC opening delay • at AC at AC opening delay • at AC at AC at AC at AC opening delay • at AC at AC at AC at AC 4 16 ms control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact unwher 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 450 V rated value • at 450 V rated value • at 450 V rated value • at 45 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 45 V rated value • at 45 V rated value • at 45 V rated value • at 125 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 30 V rated value • at 48 V rated value • at 20 V rated value • at 600 V rate		
at AC		
• at AC opening delay • at AC 4 16 ms arcing time control version of the switch operating mechanism 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 1		0.25
opening delay		2 42
arcing time		8 40 ms
arcing time		
Control version of the switch operating mechanism Standard A1 - A2		
Auxiliary circuit number of NC contacts for auxiliary contacts 1		
number of NC contacts for auxiliary contacts instantaneous contact 1		Standard A1 - A2
instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact 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 690 V rated value • at 400 V rated value • at 400 V rated value • at 640 V rated value • at 640 V rated value • at 640 V rated value • at 650 V rated value		
instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 600 V rated value • at 48 V rated value • at 48 V rated value • at 600 V rated value • at 600 V rated value • at 100 V rated value • at 110 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 220 V rated value • at 220 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 600 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 30 V rated value • at 48 V rated value • at 600		1
operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 690 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 122 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 29 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 120 V rated value • at 200 V rated value • at 200 V rated value • at 200 V rated value • at 48 V rated value • at 600 V rated value		1
at 230 V rated value at 400 V rated value at 4500 V rated value at 690 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 220 V rated value at 24 V rated value at 80 V rated value at 260 V rated value at 270 V rated value at 280 V rated value at 380 V rated value at 110 V rated value at 125 V rated value at 280 V rated value at 280 V rated value at 125 V rated value at 125 V rated value at 126 V rated value at 127 V rated value at 180 V rated value at 280 V rated value at 280 V rated value at 480 V rated value at 7 A ylelded mechanical performance [hp] of or single-phase AC motor — at 110/120 V rated value 1 hp	operational current at AC-12 maximum	10 A
• at 400 V rated value • at 500 V rated value • at 690 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 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 48 V rated value • at 48 V rated value • at 48 V rated value • at 600 V rated value • at 80 V rated value • at 600 V rated value	operational current at AC-15	
• at 500 V rated value	at 230 V rated value	10 A
• at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 10 V rated value • at 110 V rated value • at 125 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 300 V rated value • at 480 V rated value • at 600 V rated value • at 480 V rated value • at 600 V rated value	at 400 V rated value	3 A
Operational current at DC-12	at 500 V rated value	2 A
 at 24 V rated value at 48 V rated value at 6 A 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 24 V rated value at 24 V rated value at 60 V rated value at 125 V rated value at 125 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 480 V rated value at 7 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value hp 	at 690 V rated value	1 A
 at 48 V rated value at 60 V rated value at 110 V rated value at 1125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 220 V rated value at 600 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 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 <l< td=""><td>operational current at DC-12</td><td></td></l<>	operational current at DC-12	
• 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 60 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 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	at 24 V rated value	10 A
 at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 8 V rated value at 60 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 220 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 at 14 A at 100 V rated value 	at 48 V rated value	6 A
• at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 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 • at 48 V rated value • 1 A • 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 • at 600 V rated value • at 600 V rated value • at 110/120 V rated value 1 hp	at 60 V rated value	6 A
• at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 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 • 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 • at 600 V rated value 14 A **yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp		
• 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 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 O.1 A contact reliability of auxiliary contacts full-load current (FLA) for 3-phase AC motor • at 480 V rated value 14 A • at 600 V rated value 17 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp		
• 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 220 V rated value • at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value 14 A • at 600 V rated value 17 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp		
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 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 • at 10/120 V rated value 1 hp		
 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 125 V rated value at 220 V rated value at 600 V rated value o.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 at 7 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 		
 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 600 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 7 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 	•	10 A
 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 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 at 600 V rated value for single-phase AC motor af 14 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 1 hp 		
 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 for single-phase AC motor for single-phase AC motor at 10/120 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 for single-phase AC motor at 110/120 V rated value 1 hp 		
 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 for single-phase AC motor at 110/120 V rated value 1 hp 		
 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 for single-phase AC motor at 110/120 V rated value 1 hp 		
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 14 A • at 600 V rated value 17 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp		
UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 17 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 17 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 1 hp		Tradity Switching per 100 million (17 V, 1 m/v)
 at 480 V rated value at 600 V rated value 17 A yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 1 hp 		
at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 17 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		1/ A
— at 110/120 V rated value 1 hp		
· ·		
— at 230 V rated value 3 hp		
	— at 230 V rated value	3 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	15 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
type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
solid 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	ZA (10 12), ZA (11 0)
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	
	0.5 2.5 mm ²
 solid or stranded 	0.5 2.5 11111
solid or strandedfinely stranded with core end processing	0.5 2.5 mm ²

 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



Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













other

Confirmation



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=3RT2025-1AH00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1AH00

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

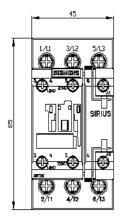
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AH00

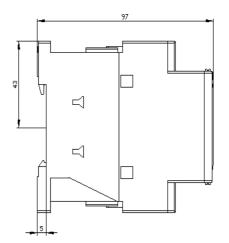
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2025-1AH00&lang=en

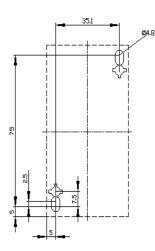
Characteristic: Tripping characteristics, I2t, Let-through current

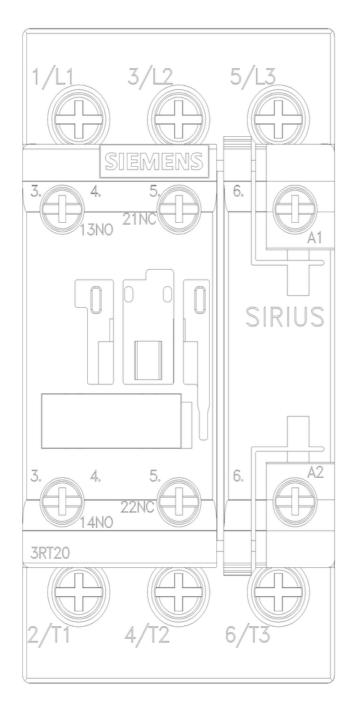
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AH00/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AH00&objecttype=14&gridview=view1









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