SIEMENS

Data sheet 3RT2018-1AH02



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 48 V AC, 50/60 Hz, auxiliary contacts: 1 NC, screw terminal, size: S00 $\,$

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	3 W
 at AC in hot operating state per pole 	1 W
without load current share typical	1.5 W
type of calculation of power loss depending on pole	quadratic
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 protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	30 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Weight	0.235 kg
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 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	39.6 kg
Global Warming Potential [CO2 eq] during manufacturing	1.18 kg
Global Warming Potential [CO2 eq] during operation	38.5 kg
Global Warming Potential [CO2 eq] after end of life	-0.155 kg
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 at AC-1 	22 A
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	20 A
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value● at AC-3e	8.9 A
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
 at AC-4 at 400 V rated value 	11.5 A
 at AC-5a up to 690 V rated value 	19.4 A
 at AC-5b up to 400 V rated value 	13.2 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	9.6 A
— up to 400 V for current peak value n=20 rated value	9.6 A
 up to 500 V for current peak value n=20 rated value 	9.6 A
— up to 690 V for current peak value n=20 rated value• at AC-6a	8.9 A
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
 up to 690 V for current peak value n=30 rated value 	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	5.5 A
at 690 V rated value	4.4 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1	22.4
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A

 with 3 current paths in series at DC-1 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A 20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1A
at 1 current path at DC-3 at DC-5	00.4
— at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 A
with 2 current paths in series at DC-3 at DC-5	00.4
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	0.35 A
with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	2.5 kW
at 690 V rated value	3.5 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	3.8 kVA
up to 400 V for current peak value n=20 rated value	6.6 kVA
up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value	8.3 kVA
up to 690 V for current peak value n=20 rated value	10.6 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	2.5 kVA
up to 400 V for current peak value n=30 rated value	4.4 kVA
up to 500 V for current peak value n=30 rated value	5.5 kVA
up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value	7.6 kVA
short-time withstand current in cold operating state up to	7.V KV/Y
40 °C	
	300 A; Use minimum cross-section acc. to AC-1 rated value
40 °C	300 A; Use minimum cross-section acc. to AC-1 rated value 169 A; Use minimum cross-section acc. to AC-1 rated value
40 °C ■ limited to 1 s switching at zero current maximum	
 40 °C Iimited to 1 s switching at zero current maximum Iimited to 5 s switching at zero current maximum 	169 A; Use minimum cross-section acc. to AC-1 rated value
40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value
• Ilimited to 1 s switching at zero current maximum • Ilimited to 5 s switching at zero current maximum • Ilimited to 10 s switching at zero current maximum • Ilimited to 30 s switching at zero current maximum • Ilimited to 60 s switching at zero current maximum no-load switching frequency • at AC operating frequency	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value 10 000 1/h
• limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC operating frequency • at AC-1 maximum	169 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value 10 000 1/h 1 000 1/h

Control supply voltage at AC	• at AC-4 maximum	250 1/h
Spee of village of the control supply voltage AC		
		AC
## ## ## ## ## ## ## ## ## ## ## ## ##		
Operating range factor control supply voltage rated value of magnet coil at 160 Hz		48 V
magnet coil at AC		
magnet coil at AC	operating range factor control supply voltage rated value of	
apparent pick-up power of magnet coil at AC		
apparent plck-up power of magnet coll at AC	• at 50 Hz	0.8 1.1
* at 80 Hz	● at 60 Hz	0.85 1.1
• at 60 Hz	apparent pick-up power of magnet coil at AC	
Inductive power factor with closing power of the coil	● at 50 Hz	
■ at 80 Hz		33 VA
	-	
apparent holding power of magnet coil at AC a till 50 Hz 4.4 VA a till 50 Hz 4.4 VA a till 50 Hz 2.5 TVA a till 60 Hz 2.5 TVA a		
• at 50 Hz		0.75
• at 80 Hz		
Inductive power factor with the holding power of the coil • at 50 Hz 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at 74 AC 9 35 ms opening delay • at AC 4 15 ms arcing time 10 15 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact 0.05 ms control version of the switch operating mechanism 10 A 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 2 A • at 690 V rated value 1 A • at 690 V rated value 3 A • at 160 V rated value 2 A • at 160 V rated value 1 A • at 220 V rated value 0.15 A • at 220 V rated value 2 A • at 160 V rated value 1 A • at 220 V rated value 2 A • at 160 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 0.9 A • at 220 V rated value 0.9 A • at 220 V rated value 0.9 A • at 220 V rated value 0.1 A • at 220 V r		
• at 50 Hz 0.25		4.4 VA
• at 60 Hz Closing delay at AC 9 35 ms opening delay at AC 4 15 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit		
e at AC 935 ms opening delay		
e at AC opening delay e at AC arcing time control version of the switch operating mechanism Auxilliary circuit number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 e at 230 V rated value e at 400 V rated value e at 690 V rated value 10 A operational current at AC-12 e at 24 V rated value e at 48 V rated value e at 48 V rated value e at 48 V rated value e at 220 V rated value e at 220 V rated value e at 48 V rated value e at 600 V rated value e at 600 V rated value e at 220 V rated value e at 48 V rated value e at 60 V rated value		0.25
e at AC 415 ms arcing time 1015 ms Control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A e at 400 V rated value 10 A e at 400 V rated value 2 A e at 500 V rated value 11 A operational current at DC-12 e at 24 V rated value 16 A e at 84 V rated value 6 A e at 84 V rated value 6 A e at 80 V rated value 10 A e at 40 V rated value 2 A e at 220 V rated value 10 A e at 40 V rated value 11 A e at 125 V rated value 10 A e at 40 V rated value 11 A e at 60 V rated value 11 A e at 6		0. 05
		9 35 ms
arcing time		4. 45
Standard A1 - A2		
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15		
number of NC contacts for auxiliary contacts instantaneous		Standard A1 - A2
Operational current at AC-12 maximum 10 A		1
Departional current at AC-15		I
	operational current at AC-12 maximum	10 A
	operational current at AC-15	
	at 230 V rated value	10 A
• at 690 V rated value 1 A operational current at DC-12 • at 24 V rated value 6 A • at 48 V rated value 6 A • at 60 V rated value 3 A • at 110 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 110 V rated value 1 A • at 600 V rated value 1 A • at 48 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 1 A • at 60 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 1 A • at 125 V rated value 1 A • at 200 V rated value 1 A • at 480 V rated value 1 A • at 600 V rated value 1 A	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 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 at 600 V rated value out 5 A 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 60 V rated value at 10 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 480 V rated value at 600 V rated value at	at 690 V rated value	1 A
 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 220 V rated value at 600 V rated value 0.15 A operational current at DC-13 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 125 V rated value at 220 V rated value at 220 V rated value at 200 V rated value at 600 V rated value at 60	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 ontated value ontated value ontated value ontated 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 125 V rated value at 125 V rated value at 125 V rated value at 20 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 600 V rated value at 74 A at 600 V rated value at 74 A at 600 V rated value at 600 V rated value at 74 A at 600 V rated value at 74 A at 600 V rated value at 75 A 	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 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 600 V rated value at 480 V rated value at 600 V rated value at 70 Phase AC motor 	• at 48 V rated value	6 A
 at 125 V rated value at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 80 V rated value at 60 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 600 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 70 V rated value	• at 60 V rated value	6 A
 at 220 V rated value 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 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 rate	• at 110 V rated value	3 A
operational current at DC-13 operational current at Color at Current	• at 125 V rated value	2 A
operational current at DC-13 • at 24 V rated value • at 48 V rated value 2 A • at 60 V rated value 2 A • at 110 V rated value 1 A • at 220 V rated value 0 at 220 V rated value 0 .3 A • 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 11 A yielded mechanical performance [hp] • for single-phase AC motor	• at 220 V rated value	1 A
 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 at 600 V rated value 1 faulty switching per 100 million (17 V, 1 mA) ULI/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	0.15 A
 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 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 14 A at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor 	operational current at DC-13	
 at 10 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 700 V rated value at 700	• 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 ontact 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] a for single-phase AC motor	• at 48 V rated value	2 A
 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 at 600 V rated value per 100 million (17 V, 1 mA) 14 A at 600 V rated value performance [hp] for single-phase AC motor 	• at 60 V rated value	2 A
 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 V rated value	1 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 11 A yielded mechanical performance [hp] for single-phase AC motor	• at 125 V rated value	0.9 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 220 V rated value	0.3 A
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 600 V rated value	0.1 A
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		1 faulty switching per 100 million (17 V, 1 mA)
 at 480 V rated value at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor 	UL/CSA ratings	
• at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor	full-load current (FLA) for 3-phase AC motor	
yielded mechanical performance [hp] • for single-phase AC motor	• at 480 V rated value	14 A
• for single-phase AC motor	at 600 V rated value	11 A
	yielded mechanical performance [hp]	
— at 110/120 V rated value 1 hp	• for single-phase AC motor	
	— at 110/120 V rated value	1 hp

 at 230 V rated value for 3-phase AC motor at 200/208 V rated value by at 220/230 V rated value by at 460/480 V rated value bp at 575/600 V rated value bp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80k gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position t-/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN El height f8 mm width depth 73 mm 	A)
- at 200/208 V rated value	A)
- at 220/230 V rated value 5 hp - at 460/480 V rated value 10 hp - at 575/600 V rated value 10 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k — with type of assignment 2 required gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80k • 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 for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method socrew and snap-on mounting onto 35 mm DIN rail according to DIN El height 58 mm width	A)
- at 460/480 V rated value - at 575/600 V rated value 10 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required 9G: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k - with type of assignment 2 required 9G: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80k • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Ell height 58 mm width	A)
- at 575/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k • for short-circuit protection of the auxiliary switch required gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80k • 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 for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method height 58 mm width	A)
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80k gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method height 58 mm width	A)
Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required gG: 25A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k • 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 for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Ell height width 45 mm	A)
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position #/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method height 58 mm width 45 mm	A)
• for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position #/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting fastening method height width #58 mm #45 mm	A)
— with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required gG: 25A (690V,100kA), aM: 25A (690V,100kA), BS88: 25A (415V,80k gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions #/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mou	A)
— with type of assignment 2 required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Elegation height width 45 mm	A)
● for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Elegation height width 45 mm	
Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Ell height width 45 mm	ward and
mounting position +/-180° rotation possible on vertical mounting surface; can be tilted for backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting Yes fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN Ell height width 45 mm	ward and
backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN El height width 45 mm	ward and
fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN El height 58 mm width 45 mm	
height58 mmwidth45 mm	
width 45 mm	N 60715
depth 73 mm	
required spacing	
with side-by-side mounting	
— forwards 10 mm	
— upwards 10 mm	
— downwards 10 mm	
— at the side 0 mm	
• for grounded parts	
— forwards 10 mm	
— upwards 10 mm	
— at the side 6 mm	
— downwards 10 mm	
• for live parts	
— forwards 10 mm	
— upwards 10 mm	
— downwards 10 mm	
— at the side 6 mm	
Connections/ Terminals	
type of electrical connection	
• for main current circuit screw-type terminals	
• for auxiliary and control circuit screw-type terminals	
• at contactor for auxiliary contacts Screw-type terminals	
• of magnet coil Screw-type terminals	
type of connectable conductor cross-sections	
• for main contacts	
— solid 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²	
— solid or stranded 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²	
— finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
• for AWG cables for main contacts 2x (20 16), 2x (18 14), 2x 12	
connectable conductor cross-section for main contacts	
• solid 0.5 4 mm²	
• stranded 0.5 4 mm²	
• finely stranded with core end processing 0.5 2.5 mm²	
connectable conductor cross-section for auxiliary contacts	
• solid or stranded 0.5 4 mm²	
• finely stranded with core end processing 0.5 2.5 mm²	
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²	
— solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	

AWG number as coded connectable conductor cross section	
• for main contacts	20 12
 for auxiliary contacts 	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
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
Approvals Certificates	
General Product Approval	







Confirmation



<u>KC</u>

General Product Approval

EMV

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping











Miscellaneous

other

other

Railway

Environment

Confirmation

Confirmation

Special Test Certificate



Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875 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=3RT2018-1AH02

Cax online generator

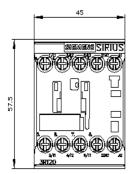
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2018-1AH02}$

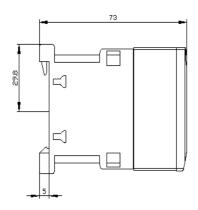
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AH02

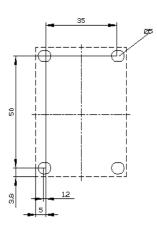
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1AH02&lang=en

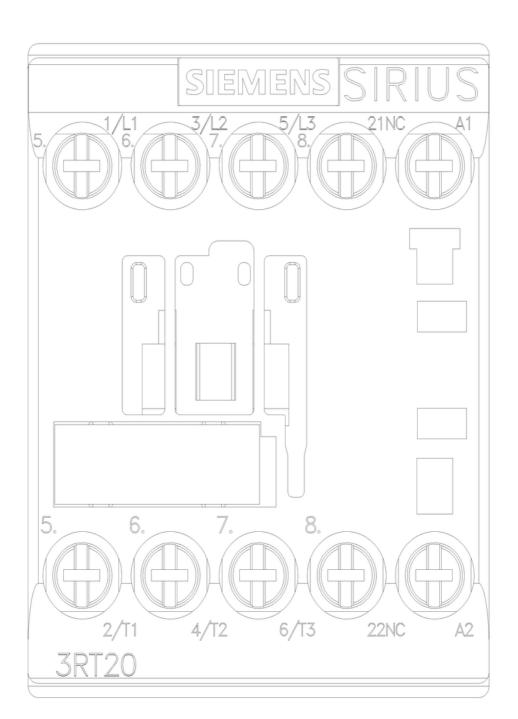
Characteristic: Tripping characteristics, I2t, Let-through current

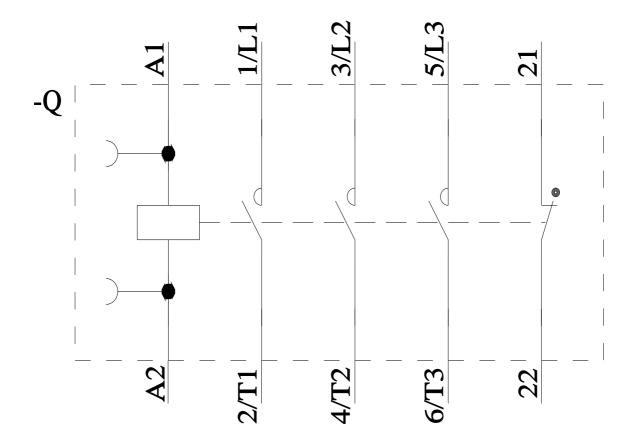
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AH02&objecttype=14&gridview=view1











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