SIEMENS

Data sheet 3RT2038-3AH00



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 48 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
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 	17.1 W
 at AC in hot operating state per pole 	5.7 W
 without load current share typical 	6 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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (operating 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)	10/01/2014
Weight	0.987 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	236 kg
global warming potential [CO2 eq] during manufacturing	4.11 kg
global warming potential [CO2 eq] during operation	233 kg
global warming potential [CO2 eq] after end of life	-0.635 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 	90 A
— up to 690 V at ambient temperature 40 °C rated value	90 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	80 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
at AC-4 at 400 V rated value at AC-5 a value con V rated value	55 A
 at AC-5a up to 690 V rated value at AC-5b up to 400 V rated value 	79.2 A 66.4 A
• at AC-3b up to 400 V fated Value	00.4 A
— up to 230 V for current peak value n=20 rated value	70 A
— up to 400 V for current peak value n=20 rated value	70 A
— up to 500 V for current peak value n=20 rated value	70 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	46.7 A
— up to 400 V for current peak value n=30 rated value	46.7 A
— up to 500 V for current peak value n=30 rated value	46.7 A
— up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated value	35 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	30 A
at 690 V rated value	24 A
operational current	
at 1 current path at DC-1 at 24 V rated value.	SE A
— at 24 V rated value — at 60 V rated value	55 A 23 A
— at 100 V rated value — 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	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A

with 3 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 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	1.4 A
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1.4
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
	0.06 A
with 2 current paths in series at DC-3 at DC-5 at 24 V reted value.	EE A
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	25 A
— at 220 V rated value	5 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 reted value.	EF A
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
• at AC-2 at 400 V rated value	37 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	27.8 kVA
up to 400 V for current peak value n=20 rated value	48.4 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	60.6 kVA
up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value	69.3 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	18.6 kVA
up to 400 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value	32.3 kVA
up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	40.4 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	55.8 kVA
short-time withstand current in cold operating state up to 40 °C	
limited to 1 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value
limited to 5 s switching at zero current maximum	898 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	640 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	414 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	333 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	,

• at AC	5 000 1/h
operating frequency	0 000 1/11
at AC-1 maximum	700 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
at AC-3e maximum	500 1/h
• at AC-4 maximum	150 1/h
Control circuit/ Control	150 1/11
	AC
type of voltage of the control supply voltage control supply voltage at AC	AC
at 50 Hz rated value	48 V
operating range factor control supply voltage rated value of	40 V
magnet coil at AC	
● at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	190 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.72
apparent holding power of magnet coil at AC	
• at 50 Hz	16 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.37
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous	1
contact	·
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
at 230 V rated valueat 400 V rated value	10 A 3 A
	3 A 2 A
• at 400 V rated value	3 A
at 400 V rated value at 500 V rated value at 690 V rated value operational current at DC-12	3 A 2 A 1 A
at 400 V rated value at 500 V rated value at 690 V rated value operational current at DC-12 at 24 V rated value	3 A 2 A 1 A
at 400 V rated value 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	3 A 2 A 1 A 10 A 6 A
at 400 V rated value 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 60 V rated value	3 A 2 A 1 A 10 A 6 A 6 A
at 400 V rated value 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 110 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A
at 400 V rated value 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 125 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A
at 400 V rated value 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 220 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
at 400 V rated value 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	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A
at 400 V rated value 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 operational current at DC-13	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
 at 400 V rated value 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 operational current at DC-13 at 24 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
at 400 V rated value 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 640 V rated value operational current at DC-13 at 24 V rated value at 48 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
at 400 V rated value 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 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	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
at 400 V rated value 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 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	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
at 400 V rated value 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 48 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 110 V rated value at 110 V rated value at 125 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A
at 400 V rated value 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 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	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
 at 400 V rated value at 500 V rated value at 690 V rated value operational current at DC-12 at 24 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 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 125 V rated value at 120 V rated value at 120 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
at 400 V rated value 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 600 V rated value at 24 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 60 V rated value at 60 V rated value at 120 V rated value at 120 V rated value at 600 V rated value	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
at 400 V rated value 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 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 125 V rated value at 125 V rated value at 600 V rated value contact reliability of auxiliary contacts	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
at 400 V rated value 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 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 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
 at 400 V rated value at 500 V rated value at 690 V rated value operational current at DC-12 at 24 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 24 V rated value at 24 V rated value at 24 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 240 V rated value at 240 V rated value at 240 V rated value at 480 V rated value at 480 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
at 400 V rated value 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 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 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)

	for single-phase AC motor	
		5 hp
for 3-phase AC motor		
		10 110
- at 220/230 V rated value - at 450/480 V rated value - 50 hp	·	20 hp
- at 460/480 V rated value 50 hp 60		
- at 575/600 V rated value 600 hp 600 / 800 / 900 / 800 / 900 / 800 / 900 / 800 / 900 / 800 / 900 / 800 / 90		·
contact rating of auxiliary contacts according to UL Short-Cricuit protection design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V design of the fuse link • for short-circuit protection of the main circuit — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for stord-circuit protection of the auxiliary switch required • for switch stord of the switch swi		·
C characteristic: 10 A; 0.4 kA		·
design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • fastening method side-by-side mounting • fastening method • for short-circuit protection of the auxiliary switch required • fastening method side-by-side mounting • fastening method • for short-circuit protection of the auxiliary switch required • fastening method • for short-circuit protection of the auxiliary switch required • fastening method • for short-circuit protection of the auxiliary switch required • fastening method • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the substillary switch required • for grounded parts •		7,000 / 1 000
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit specified on the auxiliary switch required • for short-circuit specified on the auxiliary switch required • for short-circuit specified on the auxiliary and control circuit on the auxiliary and control circuit specified at expecified at the side of mm • for main correct circuit specified at contacts • for main contacts • for fall of selection and contacts • for main contacts • for main contacts • for fall of selection and contacts • for main contacts • for fall of selection and contacts • for main contacts • for the contacts • for auxiliary and control contacts • for main contacts • for the	design of the miniature circuit breaker for short-circuit protection	C characteristic: 10 A; 0.4 kA
of or 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 — for short-circuit protection of the auxiliary switch required Installation/mounting/dimensions mounting position #/-180* rotation possible on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on vertical mounting surface; can be tilted forward an abackward by +/- 22.5* on mounting onto 35 mm DIN rail according to DIN EN 60715	of the auxiliary circuit up to 230 V	
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 • for short-circuit protection of the auxiliary switch required Installation mounting joint mounting of the auxiliary switch required Installation mounting joint mounting of the auxiliary switch required Fastening method Side-by-side mounting Yes	 for short-circuit protection of the main circuit 	
• for short-direction of the auxiliary switch required installation mounting (dimensions) mounting position	with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
mounting position ##-180° rotation possible on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted forward an backward by +f- 22.5° on vertical mounting surface; can be tilted for vertical mounting onto 10 mm 1 on m 1 on m 2 on m 2 on m 3 on m 3 on m 4 on m 5 on m 5 on man current circuit 6 or man current circuit 9 on m 9 on m 1 on m	— with type of assignment 2 required	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
mounting position #i-180* rotation possible on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted forward an backward by 9i- 22.5* on vertical mounting surface; can be tilted for 9i-	• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting height strength for main current circuit of romain contacts backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height fastening method fastening faste	nstallation/ mounting/ dimensions	
fastening method height 114 mm width 55 mm depth 130 mm required spacing • with side-by-side mounting — forwards — upwards — at the side • for grounded parts — forwards — upwards — to main contacts — of magine coil • for rawiliary and control circuit • of magine coil • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • for main contacts — for ma	mounting position	+/-180 $^\circ$ rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5 $^\circ$ on vertical mounting surface
height width 55 mm depth 130 mm required spacing • with side-by-side mounting — forwards 10 mm — downwards 10 mm — at the side 0 nm — for grounded parts — forwards 10 mm — at the side 0 nm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts — forwards 10 mm • for main current circuit spring-loaded terminals • of main current circuit spring-loaded terminals • of magnet coil spring-type terminals • of main contacts • for main contacts • for awiliary and conductor cross-sections • for main contacts • for main contacts • for AWG cables for main contacts connectable conductor cross-section for main contacts	fastening method side-by-side mounting	Yes
width 55 mm depth 130 mm required spacing • with side-by-side mounting — forwards 10 mm — downwards 10 mm — at the side 0 mm — orwards 10 mm — orwards 10 mm — orwards 10 mm — orwards 10 mm — at the side 6 mm — ownwards 10 mm — at the side 6 mm — ownwards 10 mm • for live parts — forwards 10 mm • for live parts — upwards 10 mm • for min current circuit screw-type terminals type of electrical connection • for main current circuit spring-loaded terminals • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts — solid or stranded 2x (1 35 mm²), 1x (1 35 mm²) • for AWG cables for main contacts connectable conductor cross-section for main contacts	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — 10 mm • for grounded parts — forwards — upwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — 10 mm • for live parts — forwards — upwards — 10 mm • for live parts — forwards — upwards — 10 mm • for live parts — forwards — upwards — upwards — 10 mm • for live parts — forwards — upwards — upwards — the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	height	114 mm
required spacing • with side-by-side mounting — forwards — upwards — at the side • for grounded parts — forwards — 10 mm • for grounded parts — forwards — 10 mm — at the side • form — upwards — 10 mm — upwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — 10 mm • for live parts — forwards — 10 mm • for live parts — forwards — 10 mm — upwards — 10 mm • for live parts — forwards — 10 mm — at the side — formards — to man current circuit — for auxiliary and control circuit — spring-loaded terminals type of electrical connection • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	width	55 mm
with side-by-side mounting — forwards — upwards — downwards — at the side of grounded parts — forwards — in the side of grounded parts — forwards — upwards — upwards — upwards — at the side — downwards — at the side — downwards — in the side — downwards of or live parts — forwards — upwards — upwards — upwards — upwards — downwards — upwards — at the side — downwards — at the side — formal current circuit — for auxiliary and control circuit of or auxiliary and control circuit of magnet coil type of connectable conductor cross-sections of main contacts — solid or stranded — finely stranded with core end processing of or AWG cables for main contacts connectable conductor cross-section for main contacts	depth	130 mm
forwards	required spacing	
- upwards	with side-by-side mounting	
- downwards - at the side - for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - to five parts - forwards - upwards - for live parts - forwards - upwards - for live parts - forwards - upwards - upwards - upwards - to mm - upwards - downwards - at the side - downwards - at the side - downwards - at the side - formain current circuit - for main current circuit - for main current circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - for magnet coil - for magnet coil - spring-type terminals - spring-type terminals - for magnet coil - spring-type terminals - spring-type terminals - for main contacts - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - connectable conductor cross-section for main contacts	— forwards	10 mm
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - forwards • for live parts - forwards - upwards - forwards - forwards - to mm - upwards - downwards - downwards - downwards - downwards - downwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts - for AWG cables for main contacts 2x (1 25 mm²), 1x (1 50 mm²) - finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts - connectable conductor cross-section for main contacts - solid or stranded 2x (1 25 mm²), 1x (1 50 mm²) - finely stranded with core end processing • for AWG cables for main contacts - connectable conductor cross-section for main contacts - connectable conductor cross-section for main contacts	— upwards	10 mm
• for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - forwards - forwards - forwards - forwards - upwards - upwards - downwards - downwards - at the side - formain current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main current circuit - solid or stranded - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts - connectable conductor cross-section for main contacts - for AWG cables for main contacts - connectable conductor cross-section for main contacts	— downwards	10 mm
- forwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 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 spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts - solid or stranded 2x (1 35 mm²), 1x (1 50 mm²) - finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²) • for AWG cables for main contacts connectable conductor cross-section for main contacts	— at the side	0 mm
- forwards 10 mm - upwards 6 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 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 spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts - solid or stranded 2x (1 35 mm²), 1x (1 50 mm²) - finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²) • for AWG cables for main contacts connectable conductor cross-section for main contacts	for grounded parts	
- at the side - downwards - for live parts - forwards - forwards - upwards - upwards - downwards - at the side - downwards - at the side - formals Connections/ Terminals type of electrical connection - for main current circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - of magnet coil type of connectable conductor cross-sections - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts connectable conductor cross-section for main contacts	— forwards	10 mm
- at the side - 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 • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	— upwards	10 mm
for live parts — forwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	·	6 mm
for live parts — forwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	— downwards	10 mm
- 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 spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts - solid or stranded 2x (1 35 mm²), 1x (1 50 mm²) - finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²) • for AWG cables for main contacts connectable conductor cross-section for main contacts		
- upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)	·	10 mm
- downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²)		
- at the side Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts - solid or stranded 2x (1 35 mm²), 1x (1 50 mm²) - finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²) • for AWG cables for main contacts 2x (18 2), 1x (18 1)	·	
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²)		
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²)	51 115 5155	V IIIII
 for main current circuit for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts — solid or stranded — finely stranded with core end processing for AWG cables for main contacts connectable conductor cross-section for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) for AWG cables for main contacts connectable conductor cross-section for main contacts 		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts solid or stranded finely stranded with core end processing for AWG cables for main contacts for AWG cables for main contacts connectable conductor cross-section for main contacts spring-loaded terminals Spring-type terminals 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) 		screw-type terminals
 at contactor for auxiliary contacts of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts — solid or stranded — finely stranded with core end processing for AWG cables for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²) connectable conductor cross-section for main contacts 		
● of magnet coil type of connectable conductor cross-sections ● for main contacts — solid or stranded — finely stranded with core end processing ● for AWG cables for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)		
type of connectable conductor cross-sections	•	
 for main contacts — solid or stranded — finely stranded with core end processing for AWG cables for main contacts of or AWG cables for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) connectable conductor cross-section for main contacts	·	
 — solid or stranded — finely stranded with core end processing ● for AWG cables for main contacts 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) connectable conductor cross-section for main contacts	• •	
 — finely stranded with core end processing ● for AWG cables for main contacts 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) connectable conductor cross-section for main contacts 		2x (1 35 mm²). 1x (1 50 mm²)
◆ for AWG cables for main contacts 2x (18 2), 1x (18 1) connectable conductor cross-section for main contacts		
connectable conductor cross-section for main contacts		
		Z. (10 Z), 1. (10 1)
	finely stranded with core end processing	1 35 mm²
connectable conductor cross-section for auxiliary contacts		00 mm
• solid or stranded • solid or stranded 0.5 2.5 mm²	-	0.5 2.5 mm²
• finely stranded with core end processing 0.5 1.5 mm²		
• finely stranded without core end processing 0.5 2.5 mm ²		U.U Z.O IIIIII
type of connectable conductor cross-sections • for auxiliary contacts		

 solid or stranded 	2x (0.5 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 1
 for auxiliary contacts 	20 14
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	
Conord Draduct Approval	

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











Confirmation

other

other Railway

Dangerous goods

Environment

Confirmation

Special Test Certificate

Transport Information



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=3RT2038-3AH00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-3AH00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3AH00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

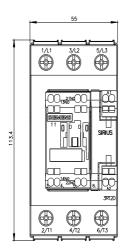
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-3AH00&lang=en

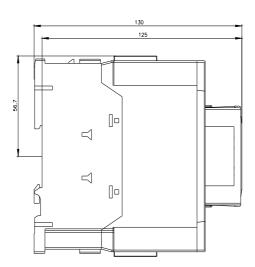
Characteristic: Tripping characteristics, I²t, Let-through current

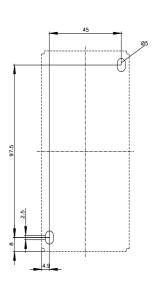
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3AH00/char

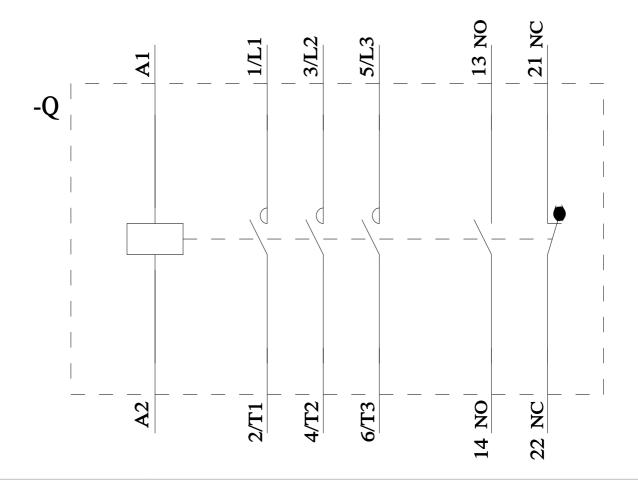
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3AH00&objecttype=14&gridview=view1









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