SIEMENS

Data sheet 3RT2038-1NB30



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 20-33 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
ieneral 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 	2 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
• of auxiliary circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
of main circuit rated value	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	7.7g / 5 ms, 4.5g / 10 ms
• at DC	7.7g / 5 ms, 4.5g / 10 ms
shock resistance with sine pulse	
• at AC	12g / 5 ms, 7g / 10 ms
• at DC	12g / 5 ms, 7g / 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
mbient 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 %

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	90 A
value ◆ at AC-1	
	90 A
 up to 690 V at ambient temperature 40 °C rated value 	50 A
 up to 690 V at ambient temperature 60 °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	55 A
• at AC-5a up to 690 V rated value	79.2 A
at AC-5b up to 400 V rated value	66.4 A
• at AC-6a	
— 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 at 690 V rated value	24 A
operational current	247
at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	V
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value — at 110 V rated value	45 A
— at 110 V rated value — at 220 V rated value	5 A
— at 440 V rated value	1A
— at 440 V rated value — at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	0.0 A
with a current paths in selies at DC-1	55 A
	00 A
— at 24 V rated value	55 A
— at 24 V rated value— at 60 V rated value	55 A
— at 24 V rated value	55 A 55 A 45 A

— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 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	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 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-	
4	
• 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	60.6 kVA
• 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	32.3 kVA
• 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	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	1 500 1/h
• at DC	1 500 1/h
operating frequency	
• 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	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
• at 50 Hz rated value	20 33 V
• at 60 Hz rated value	20 33 V
control supply voltage at DC	20 00 V
• rated value	20 33 V
operating range factor control supply voltage rated value of	20 00 1
magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value of	
magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	3 A
duration of inrush current peak	50 µs
locked-rotor current mean value	1A
locked-rotor current peak	2.6 A
duration of locked-rotor current	230 ms
holding current mean value	40 mA
apparent pick-up power of magnet coil at AC	
● at 50 Hz	40 VA
● at 60 Hz	40 VA
apparent holding power of magnet coil at AC	
● at 50 Hz	2 VA
● at 60 Hz	2 VA
closing power of magnet coil at DC	23 W
holding power of magnet coil at DC	1 W
closing delay	
• at AC	35 110 ms
• at DC	35 110 ms
opening delay	
• at AC	30 55 ms
• at DC	30 55 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 contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• 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	10 A
at 48 V rated value	2 A
- 61 10 7 16166 76166	

* 41 60 V rated value		
** 125 V yrland value	at 60 V rated value	2 A
+ 1220 V rated value	at 110 V rated value	1 A
• # 80 0 V rated value	at 125 V rated value	0.9 A
	at 220 V rated value	0.3 A
### Tubl-load current (FLA) for 3-phase AC motor ### aid 400 V rited value ### aid 500 V rited value ### pictor of single-phase AC motor ### aid 100 V rited value ### aid 200 V rited value ### aid 200 V rated value ### aid 200	at 600 V rated value	0.1 A
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 280 V rated value • at 290 V rated value • at 200 V rated value • for short-circuit protection of the main circuit — with type of assignment 2 required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the auxiliary switch required • a for short-circuit protection of the main circuit • a for short-circui	contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
• at 88 V rated value • at 80 V rated value • 62 A	UL/CSA ratings	
• at 600 V rated value 62 Å	full-load current (FLA) for 3-phase AC motor	
yelded mechanical performance (hp) • for single-phase AC motor	at 480 V rated value	65 A
for single-phase AC motor	at 600 V rated value	62 A
	yielded mechanical performance [hp]	
- at 230 V rated value 15 hp	 for single-phase AC motor 	
• for 3-phase AC motor — at 200/209 V rated value — at 220230 V rated value — at 480/480 V rated value — at 480/480 V rated value — at 480/480 V rated value — at 575600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection 4800 / PB00 Short-circuit protection of the main circuit — with type of coordination 1 required 9G: 150 A (890 V, 100 kA), aM: 160 A (890 V, 100 kA), BS88: 200 A (415 V, 80 kA) with type of assignment 2 required 9G: 160A (890V, 100kA), aM: 80A (890V, 100kA), BS88: 125A (415V, 80 kA) possible on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting surface; can be titled forward and backward by 4-/-225° on vertical mounting	— at 110/120 V rated value	5 hp
	— at 230 V rated value	15 hp
at 220/230 V rated value at 460-480 V rated value 50 hp	 for 3-phase AC motor 	
- at 450/480 V rated value	— at 200/208 V rated value	20 hp
- at 575/600 V rated value contact rating of auxiliary contacts according to UL A800 / P800 Short-circuit protection - with type of coordination 1 required - with type of coordination 2 required - with type of assignment 2 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 - 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 and control circuit - for auxiliary contacts - folially stranded with core end processing - folially stranded wit	— at 220/230 V rated value	25 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 - 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 switch of specific protection of the auxiliary switch required - fateling method - side-by-side mounting - with side-by-side mounting - forwards - quivards -	— at 460/480 V rated value	50 hp
Short-circuit protection design of the fuse link	— at 575/600 V rated value	60 hp
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 for short-circuit for short-circuit for short-circuit for short-circuit for short-circuit for auxiliary and control circuit for auxiliary and control circuit for short-circuit for short-circuit for stranded for main current circuit for stranded for main current circuit for auxiliary contacts for main contacts for short-circuit for stranded for main current circuit for auxiliary contacts for main contacts for short-circuit for stranded for main current circuit for auxiliary contacts for main contacts for main contacts for main contacts for short-circuit for stranded for stranded for short-circuit for stranded for short-circuit for short-circuit for stranded for short-circuit for stranded for short-circuit for short-circuit for short-circuit for short-circuit for auxilia	contact rating of auxiliary contacts according to UL	A600 / P600
• 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 • 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 Installation/Imounting/dimosions mounting position **A-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilt	Short-circuit protection	
- 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	design of the fuse link	
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 # 1-180° rotation possible on vertical mounting surface; can be tilted forward and backward by #-22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 # 114 mm width # 155 mm depth # 130 mm required spacing • with side-by-side mounting — forwards — upwards — downwards — of or grounded parts — forwards — upwards — at the side — downwards — upwards — at the side — downwards — of rive parts — forwards • for live parts — forwards 10 mm • for live parts — forwards 10 mm • for live parts — forwards 10 mm • for live parts — the side — downwards 10 mm • for live parts — forwards 10 mm • for live parts — forwards 10 mm • for live parts — the side — downwards 10 mm • for live parts — forwards 5 mm • for live parts • for live parts Forwards • for live parts Forwards • for live parts • f	 for short-circuit protection of the main circuit 	
• 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 and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface; can be tilted forward and surface; can be tilted forward and surface; can be ti	— with type of coordination 1 required	
mounting position ### A 180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface ### side-by-side mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and backward by Fixe mounting surface; can be tilted forward and surface a	— with type of assignment 2 required	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
mounting position +/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward so file for tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted forward some purples for mounting surface; can be tilted forward some purples for mounting surface; can be tilted forward some purples for mounting surface; can be tilted forward some purples for mounting surface; can be tilted forward some purples for mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface; can be tilted for mounting surface; can be tilted forward and backward by +/-22.5" on vertical mounting surface: 10 mm 10 m	• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
fastening method	Installation/ mounting/ dimensions	
astening method	mounting position	
e side-by-side mounting height width dopth frequired spacing • with side-by-side mounting — forwards — upwards — downwards — of for grounded parts — forwards — upwards — at the side • for grounded parts — forwards — at the side — downwards — at the side — downwards — 10 mm — at the side — downwards — 10 mm • for live parts — forwards — forwards — to many and a formation an		
height 55 mm depth 130 mm required spacing • with side-by-side mounting — forwards 10 mm — upwards 10 mm — at the side 0 mm • for grounded parts — forwards 10 mm • for grounded parts — forwards 10 mm • for grounded parts — forwards 10 mm — at the side 6 mm — upwards 10 mm • for live parts — forwards 10 mm • for live parts — forwards 10 mm • for main current circuit screw-type terminals yer of electrical connection • for auxiliary and control circuit screw-type terminals • of magnet coil type of connectable conductor cross-sections for main contacts • solid or stranded • finely stranded with core end processing 2x (1 25 mm²), 1x (1 50 mm²) • for main, yer of main current • finely stranded with core end processing	-	
width 55 mm depth 130 mm required spacing with side-by-side mounting — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm — forwards 10 mm — forwards 10 mm — forwards 10 mm — inforwards 10 mm — upwards 10 mm — upwards 10 mm — at the side 6 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm — of or live parts 10 mm — for live parts 10 mm — to many and the side 6 mm — upwards 10 mm — to many and the side 6 mm — upwards 10 mm — to many and the side 6 mm — upwards 10 mm — upwards 10 mm — at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-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)	<u> </u>	
equired 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 — upwards 10 mm — at the side 6 mm — upwards 10 mm — at the side 6 mm — odownwards 10 mm — at the side 6 mm — odownwards 10 mm ● for live parts — forwards 10 mm ● for live parts — forwards 10 mm ■ at the side 6 mm Converting to the side 6 mm — downwards 10 mm — at the side 6 mm — towards 10 mm — downwards 10 mm — downwards 10 mm — downwards 10 mm — of main current circuit screw-type terminals • for nain current circuit screw-type terminals • for main current circuit screw-type terminals • of or main current 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)		
required spacing with side-by-side mounting — forwards — upwards — downwards — at the side of or grounded parts — forwards — in the side of or grounded parts — forwards — upwards — at the side of mm — upwards — at the side of mm — downwards of or live parts — forwards — forwards — forwards — to mm of or live parts — forwards — upwards — the side of mm converts of or live parts — forwards — upwards — the side of mm converts of or main current circuit screw-type terminals type of electrical connection of main current circuit screw-type terminals of maxillary and control circuit screw-type terminals of maxillary and control circuit screw-type terminals of magnet coil type of connectable conductor cross-sections for main contacts of magnet coil type of connectable conductor cross-sections for main contacts of minely stranded of inely stranded of inely stranded with core end processing 2x (1 25 mm²), 1x (1 50 mm²) of manner of mann		
 with side-by-side mounting — forwards — upwards — downwards — at the side O mm • for grounded parts — forwards — forwards — upwards — at the side O mm — at the side O mm — at the side — odownwards • for live parts — forwards — forwards — forwards — upwards — forwards — upwards — downwards — upwards — downwards — at the side • for mm — connections/ Terminals type of electrical connection • for main current circuit • for main current circuit • at contactor for auxiliary contacts • of magnet coil screw-type terminals • of magnet coil screw-type terminals type of connectable conductor cross-sections for main contacts • solid or stranded • solid or stranded • finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) + 1x (1 50 mm²) + 1x (1 35 mm²) 		130 mm
forwards 10 mm upwards 10 mm downwards 10 mm at the side 0 mm for grounded parts forwards 10 mm upwards 10 mm upwards 10 mm upwards 10 mm downwards 10 mm downwards 10 mm downwards 10 mm forwards 10 mm downwards 10 mm at the side 6 mm downwards 10 mm at the side 6 mm downwards 10 mm at the side 5 mm formain current circuit screw-type terminals for auxiliary and control circuit screw-type terminals of magnet coil screw-type terminals		
- upwards - downwards - at the side of or grounded parts - forwards - upwards - at the side of mm connections/ Terminals type of electrical connection of or auxiliary and control circuit of or auxiliary and control circuit of magnet coil type of connectable conductor cross-sections for main contacts of magnet coil type of connectable conductor cross-sections for main contacts of magnet down with core end processing of magnet down with core end processing of mm of m	· · · · · · · · · · · · · · · · · · ·	40
- 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 • for live parts - forwards 10 mm - upwards 10 mm - upwards 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 auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-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 50 mm²)		
- 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 • for live parts - forwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 6 mm - downwards 10 mm - at the side 6 mm Connections/ Terminals type of electrical connection • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil screw-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 grounded parts — forwards — upwards — at the side — downwards — downwards — forive parts — forwards — upwards — upwards — forwards — upwards — upwards — upwards — downwards — at the side — downwards — at the side — formals **Connections/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 • solid or stranded • finely stranded with core end processing **To mm **Note The mm **To mm		
- forwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm • for live parts - forwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil screw-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)		0 mm
- upwards 10 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm - upwards 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 screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-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)		
- at the side		
- downwards • for live parts - forwards - upwards - 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 10 mm 1	•	
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 10 mm 10 mm 5 mm 6 mm Connections/ Terminals 5 crew-type terminals 5 crew-type terminals 5 crew-type terminals 5 crew-type terminals 10 mm 2 crew-type terminals 3 crew-type terminals 4 crew-type terminals 5 crew-type terminals 2 crew-type terminals 3 crew-type terminals 4 crew-type terminals 5 crew-type terminals 4 crew-type terminals 4 crew-type terminals 5 crew-type terminals 5 crew-type terminals		
- 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 10 mm 10 mm 10 mm 5 crew-type terminals 5 crew-type terminals 5 crew-type terminals 5 crew-type terminals 6 crew-type terminals 10 mm		10 mm
- 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 10 mm 10 crew-type terminals 10 crew-type terminals 2crew-type terminals 2crew-type terminals 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 35 mm²), 1x (1 35 mm²)		
- downwards - 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 10 mm 5 cmm 6 mm Screw-type terminals screw-type terminals Screw-type terminals 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 35 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 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 or stranded 2x (1 35 mm²), 1x (1 50 mm²) • finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²)	•	
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 or stranded 2x (1 35 mm²), 1x (1 50 mm²) • finely stranded with core end processing 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 screw-type terminals Screw-type terminals Screw-type terminals 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²)		6 mm
 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 screw-type terminals 2x (1 35 mm²), 1x (1 50 mm²) finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²) 		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts solid or stranded finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) finely stranded with core end processing 	type of electrical connection	
 at contactor for auxiliary contacts of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts solid or stranded finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 		screw-type terminals
 ◆ of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts ◆ solid or stranded ◆ finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 	 for auxiliary and control circuit 	screw-type terminals
type of connectable conductor cross-sections for main contacts • solid or stranded • finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²)	 at contactor for auxiliary contacts 	Screw-type terminals
 ◆ solid or stranded ◆ finely stranded with core end processing 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 	of magnet coil	Screw-type terminals
• finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²)	type of connectable conductor cross-sections for main contacts	
	 solid or stranded 	2x (1 35 mm²), 1x (1 50 mm²)
connectable conductor cross-section for main contacts	 finely stranded with core end processing 	2x (1 25 mm²), 1x (1 35 mm²)
	connectable conductor cross-section for main contacts	

 finely stranded with core end processing 	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
 solid or stranded 	0.5 2.5 mm ²
 finely stranded with core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 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
B10 value with high demand rate according to SN 31920	1 000 000
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 a
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

General Product Approval



Confirmation





Miscellaneous

<u>KC</u>

General Product Approval

EMC

Functional Safety/Safety of Ma-chinery

Declaration of Conformity

Test Certificates



Type Examination Cer-tificate





Type Test Certificates/Test Report

Test Certificates

Marine / Shipping

Special Test Certific-<u>ate</u>











Marine / Shipping

other

Railway

Transport Information





Confirmation

Confirmation

Vibration and Shock

Dangerous Good

Environment

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2038-1NB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1NB30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1NB30

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

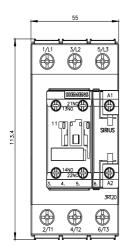
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-1NB30&lang=en

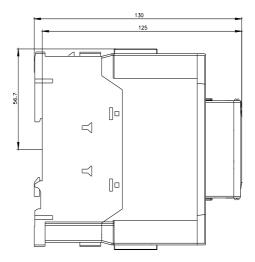
Characteristic: Tripping characteristics, I2t, Let-through current

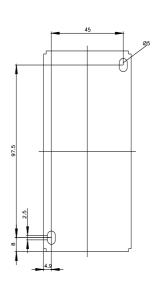
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1NB30/char

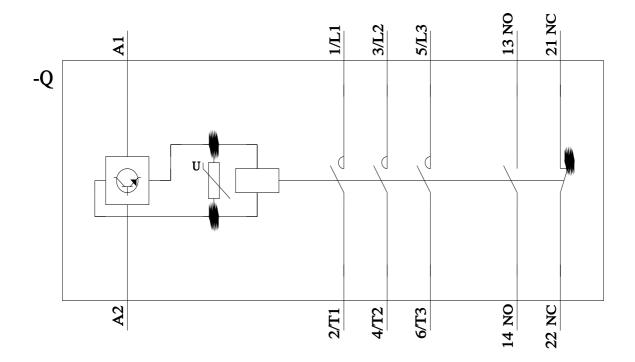
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1NB30&objecttype=14&gridview=view1









last modified: 2/10/2023 🖸