SIEMENS

Data sheet 3RT2025-1AP00



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 230 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0 $\,$

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	1.8 W
 at AC in hot operating state per pole 	0.6 W
without load current share typical	1.9 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	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
mechanical service life (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)	10/01/2009
Weight	0.405 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 %

nvironmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	74.2 kg
Global Warming Potential [CO2 eq] during manufacturing	1.9 kg
Global Warming Potential [CO2 eq] during operation	72.4 kg
Global Warming Potential [CO2 eq] after end of life	-0.117 kg
lain 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	030 V
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	40 A
 at AC-1 — up to 690 V at ambient temperature 40 °C rated value 	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value ● at AC-3e	13 A
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
at AC-5a up to 690 V rated value	35.2 A
at AC-5b up to 400 V rated value	14.1 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	11.4 A
— up to 400 V for current peak value n=20 rated value	11.4 A
— up to 500 V for current peak value n=20 rated value	11.4 A
— up to 690 V for current peak value n=20 rated value	11.3 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	7.7 A
at 690 V rated value	7.7 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 220 v rated value	0.4 A
— at 440 V rated value	U.4 A
	0.25 A
— at 440 V rated value — at 600 V rated value	
 — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 	0.25 A
 at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value 	0.25 A 35 A
 at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value 	0.25 A 35 A 35 A
 at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value 	0.25 A 35 A 35 A 35 A
 at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value 	0.25 A 35 A 35 A

with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-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	11 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	11 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	3.5 kW
at 400 V rated value at 690 V rated value	6 kW
operating apparent power at AC-6a	ONT
up to 230 V for current peak value n=20 rated value	4.5 kVA
up to 400 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value	7.8 kVA
up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value	9.9 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	13.6 kVA
operating apparent power at AC-6a	13.0 1.1.7
up to 230 V for current peak value n=30 rated value	3 kVA
up to 400 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value	5.2 kVA
up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	6.6 kVA
up to 690 V for current peak value n=30 rated value	9.1 kVA
short-time withstand current in cold operating state up to	
40 °C	
 limited to 1 s switching at zero current maximum 	225 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	225 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	189 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	140 A; Use minimum cross-section acc. to AC-1 rated value
● limited to 60 s switching at zero current maximum	115 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h

operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-3e maximum	1 000 1/h
• at AC-4 maximum	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
at 50 Hz rated value	230 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	65 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.82
apparent holding power of magnet coil at AC	
• at 50 Hz	7.6 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	4
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	40.4
• 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 at 600 V rated value	1.4
at 600 V rated value	0.15 A
operational current at DC-13	10.4
at 24 V rated value at 48 V rated value	10 A
at 48 V rated value at 60 V rated value	2 A 2 A
at 60 V rated value at 110 V rated value	
at 110 V rated value at 125 V rated value	1 A 0.9 A
 at 125 V rated value at 220 V rated value 	0.9 A 0.3 A
at 220 V rated value at 600 V rated value	0.3 A 0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	riadity switching per 100 million (17 V, 1 mA)
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	14 A
at 480 V rated value at 600 V rated value	17 A
yielded mechanical performance [hp]	II A
• for single-phase AC motor	
▼ IOI SINGIC-PHASE AC INUIUI	

Note		
• for 3-phase AC motor — at 200208 V rated value — at 200230 V rated value — at 2575600 V rated value — at 575600 V rated value — at the side — downwards — at the side — downwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — 10 mm — of rive parts — forwards — 10 mm — of rive parts — forwards — 10 mm — of rive parts — forwards — 10 mm — of rive parts — forwards — 10 mm — of romards — at the side — downwards — 10 mm — of rive parts — forwards — 10 mm — of rive parts — forwards — 10 mm — of rive parts — forwards — of rive parts — forwards — of rive parts — forwards — of mand outered circuit — of or auxiliary and control circuit — of or main contacts — solid • for good connections • for main contacts — solid		
- at 200/208 V rated value - at 220/230 V rated value 5 hp - at 240/230 V rated value 10 hp - at 575/600 V rated value 15 hp - at 575/600 V rated value 25 hp - at 575/600 V rated value 26 hp - at 575/600 V rated value 27 hp - at 257/600 V rated value 27 hp - at 257/600 V rated value 28 hp - at 257/600 V rated value 28 hp - at 257/600 V rated value 29 hp - at 25	— at 230 V rated value	3 hp
- at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - for short-diroutly protection of the main circuit - with type of coordination 1 required - with type of converting of dimensions - with spe 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 state of the same of	• for 3-phase AC motor	
- at 450/480 V rated value 15 hp 15	— at 200/208 V rated value	3 hp
- 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 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 Installation mounting dimensions mounting position +-180° rotation possible on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface; can be tilted forward backward by +/- 22.5° on ve	— at 220/230 V rated value	5 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 — with type of coordination 1 required — with type of sasignment 2 required — with type of sasignment 2 required 9G: 25A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 65A (415V,80kA) gG: 10 A (500 V, 1 kA) Installation mounting dimensions mounting position # **-190" rotation possible on vertical mounting surface; can be tilted forward backward by +/- 22.5° on vertical mounting surface. # fastening method side-by-side mounting # serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height # short by side mounting • with side-by-side mounting • with side-by-side mounting — forwards — upwards — upwards — of mounting — forwards — at the side — downwards — 10 mm — upwards — 10 mm — the side — downwards — 10 mm — upwards — 10 mm — at the side — downwards — 10 mm — the side — downwards — 10 mm — the side — downwards — 10 mm — the side — downwards — the side — downwards — to live parts — forwards — 10 mm — the side — downwards — to fire parts — forwards — the side — for grounded parts — forwards — the side — downwards — the side — downwards — the side — downwards — the side — for grounded parts — forwards — the side — forwards — the side — downwards — the side — downwards — the side — downwards — the side — for grounded parts — forwards — the side — forwa	 at 460/480 V rated value 	10 hp
Short-circuit protection design of the fuse link	— at 575/600 V rated value	15 hp
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of consortiantion 1 required — with type of consortiantion 1 required — with type of consortiantian 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 • for short-circuit protection of the auxiliary switch required • for short-circuit screws 25 (690V,100kA), aM: 22A (690V,100kA), BS88: 63A (415V,80kA) gG: 25A (690V,100kA), aM: 22A (690V,100kA), BS88: 63A (415V,80kA) gG: 25A (690V,100kA), aM: 22A (690V,100kA), BS88: 63A (415V,80kA) gG: 25A (690V,100kA), aM: 22A (690V,100kA), BS88: 63A (415V,80kA) gG: 25A (690V,100kA), aM: 22A (690V,100kA), aM: 24A (15V,80kA) gG: 25A (10 A (500 V, 10 kA) ***********************************	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 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 backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-22.5" on vertical mounting surface; can be tilted forward backward by +/-2	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 - 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 side-by-side mounting - fastening method side-by-side mounting - with side-by-side mounting - with side-by-side mounting - forwards - upwards - upwards - downwards - at the side - for grounded parts - forwards - upwards - upwards - upwards - downwards - upwards - to fire grounded parts - forwards - upwards - downwards - at the side - downwards - to fire parts - forwards - upwards - to fire parts - forwards - upwards - to fire parts - forwards - for parts - forwards - forwards	design of the fuse link	
- with type of assignment 2 required	for short-circuit protection of the main circuit	
- with type of assignment 2 required	 — with type of coordination 1 required 	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
• 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 backward by +1-22.5" on vertical mounting surface; can be tilted forward backward by +1-22.5" on vertical mounting surface; can be tilted forward backward by +1-22.5" on vertical mounting surface; can be tilted forward backward by +1-22.5" on vertical mounting surface; can be tilted forward screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### width ### depth ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### width ### depth ### sort and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607 height ### screw and snap-on m	— with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
mounting position #-/-180* rotation possible on vertical mounting surface; can be tilted forward backward by +/- 22.5* on vertical mounting surface; can be tilted forward backward by +/- 22.5* on vertical mounting surface; can be tilted forward backward by +/- 22.5* on vertical mounting surface; can be tilted forward backward by +/- 22.5* on vertical mounting surface; can be tilted forward backward by +/- 22.5* on vertical mounting surface; can be tilted forward section for surface. ### fastening method side-by-side mounting ### with side-by-side mounting ### with side-by-side mounting ### of ormards ### or		
mounting position +/-180" rotation possible on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward set on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward set on vertical mounting surface; can be tilted forward backward by +/- 22.5" on vertical mounting surface; can be tilted forward by end of the fill according to DIN EN 607 ### 45 mm		
fastening method side-by-side mounting fastening method height ### A5 mm ### depth ### own		+/-180° rotation possible on vertical mounting surface; can be tilted forward and
fastening method height width depth • with side-by-side mounting — forwards — upwards — of or grounded parts — of orwards — upwards — other side — downwards — other side		
Neight S5 mm Width S6 mm S7	fastening method side-by-side mounting	Yes
width 45 mm depth 97 mm required spacing • with side-by-side mounting — forwards 10 mm — upwards 10 mm — downwards 0 mm — at the side 0 mm • for grounded parts 10 mm — upwards 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm Connections/ Terminals type of electrical connection 6 mm • for main current circuit screw-type terminals • of or main current circuit screw-type terminals • of or connectable conductor cross-sections 6 mgnet coil type of connectable conductor cross-sections 6 or main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	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 — upwards — at the side — for grounded parts — forwards — upwards — 10 mm ● for grounded parts — forwards — upwards — 10 mm — upwards — 10 mm — upwards — 10 mm — other side — downwards — 10 mm ● for live parts — forwards — 10 mm ● for live parts — forwards — 10 mm ■ other side — downwards — 10 mm ■ other side — downwards — upwards — 10 mm — at the side — downwards — 10 mm — other side Connections/ Terminals type of electrical connection ● for main current circuit ● for auxiliary and control circuit ● of magnet coil type of connectable conductor cross-sections ● for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	height	85 mm
required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — of main current circuit — for main current circuit — for main current contacts — of main contacts — of main current contacts — of main contacts — of main current contacts — of main contacts — for main contacts — for main current circuit — of main contacts — of main contacts — of main contacts — of main current circuit — of main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	width	45 mm
required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — of main current circuit — for main current collacts — of main current collacts — of main contacts — of main currectable conductor cross-sections — for main currect — for main contacts — of main currect — of main currect — of main currect — of main currect — of main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	depth	97 mm
 with side-by-side mounting — forwards — upwards — downwards — downwards — at the side — for grounded parts — for grounded parts — forwards — upwards — upwards — at the side — 6 mm — downwards — for live parts — forwards — upwards — forwards — upwards — of mm — 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 screw-type terminals type of connectable conductor cross-sections • for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) 	<u> </u>	
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 at the side 6 mm downwards 10 mm for live parts forwards 10 mm forwards 10 mm forwards 10 mm forwards 10 mm downwards 10 mm upwards 10 mm at the side 6 mm downwards 10 mm at the side 6 mm Connections/ Terminals type of electrical connection for auxiliary and control circuit screw-type terminals of magnet coil Screw-type terminals of magnet coil Screw-type terminals of magnet coil Screw-type terminals of main contacts solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
- downwards		10 mm
- downwards - at the side 0 mm • for grounded parts - forwards 10 mm - upwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm • for live parts 10 mm - at the side 6 mm - downwards 10 mm - upwards 10 mm - upwards 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 2x (1 2.5 mm²), 2x (2.5 10 mm²)	— upwards	10 mm
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - upwards - upwards - upwards - downwards - at the side - formal 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	·	10 mm
 for grounded parts forwards upwards at the side downwards for live parts forwards forwards upwards upwards downwards 10 mm upwards downwards at the side 6 mm Connections/ Terminals type of electrical connection 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 2x (1 2.5 mm²), 2x (2.5 10 mm²) 		
- 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 - downwards 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 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
- upwards - at the side - downwards 10 mm • for live parts - forwards 10 mm - upwards 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 2x (1 2.5 mm²), 2x (2.5 10 mm²)		10 mm
- at the side - downwards 10 mm • for live parts - forwards - upwards 10 mm - upwards 10 mm - at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
- 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 10 mm 10 mm 6 mm Connections/ Terminals 10 mm 10	·	
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 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
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 • of magnet coil Screw-type terminals • for main contacts solid Screw-type terminals		10 11111
- 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 10 mm 10 m	•	10 mm
- 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 10 mm 6 mm 6 mm 6 mm Screw-type terminals screw-type terminals Screw-type terminals Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
- at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections • for main contacts - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
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 connections/ Terminals screw-type terminals screw-type terminals Screw-type terminals Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 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 screw-type terminals Screw-type terminals Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²)		0 111111
 for main current circuit for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals Screw-type terminals for main contacts sof main contacts a solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) 		
• for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil **Screw-type terminals** • of magnet coil **Screw-type terminals**		corough type terminals
 at contactor for auxiliary contacts of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) 		
◆ of magnet coil Screw-type terminals type of connectable conductor cross-sections ◆ for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	•	**
type of connectable conductor cross-sections ● for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)	•	
● for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)		Screw-type terminals
— solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)		
	— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
— finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²		
• for AWG cables for main contacts 2x (16 12), 2x (14 8)	for AWG cables for main contacts	2x (16 12), 2x (14 8)
connectable conductor cross-section for main contacts	connectable conductor cross-section for main contacts	
• solid 1 10 mm ²	• solid	1 10 mm²
• stranded 1 10 mm ²	• stranded	1 10 mm²
• finely stranded with core end processing 1 10 mm²	finely stranded with core end processing	1 10 mm²
connectable conductor cross-section for auxiliary contacts	connectable conductor cross-section for auxiliary contacts	
• solid or stranded 0.5 2.5 mm²	 solid or stranded 	0.5 2.5 mm²
• finely stranded with core end processing 0.5 2.5 mm²	 finely stranded with core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	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 (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	16 8
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	







Confirmation



<u>KC</u>

General Product Ap-

EMV

Test Certificates

Marine / Shipping

other







Marine / Shipping





Miscellaneous

Confirmation

other

Railway

Environment

Confirmation

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



Environmental Confirmations

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=3RT2025-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1AP00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AP00

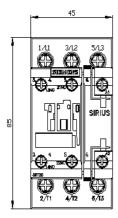
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

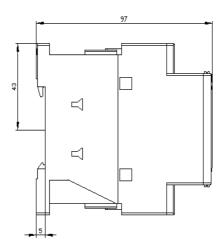
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20

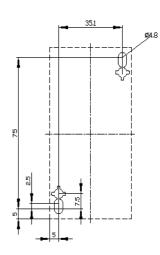
Characteristic: Tripping characteristics, I2t, Let-through current

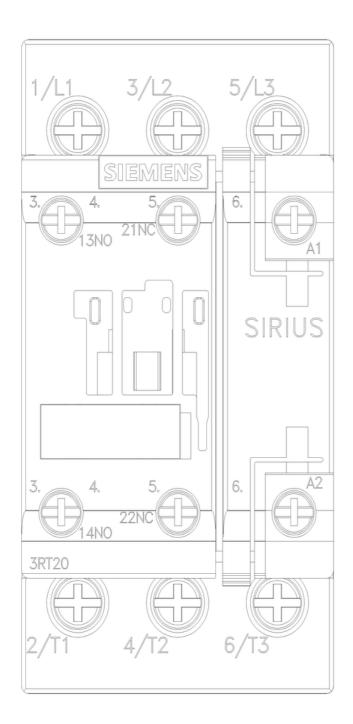
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AP00/char

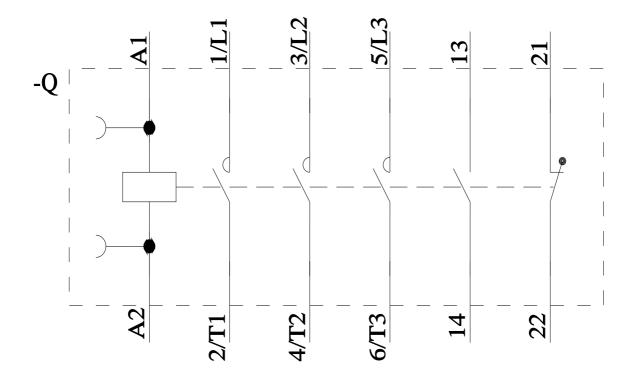
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AP00&objecttype=14&gridview=view1











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