SIEMENS

Data sheet 3RT2025-1BB40



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 24 V DC, 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	5.9 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 DC	10g / 5 ms, 7,5g / 10 ms	
shock resistance with sine pulse		
• at DC	15g / 5 ms, 10g / 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	
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	221 kg
Global Warming Potential [CO2 eq] during manufacturing	2.65 kg
Global Warming Potential [CO2 eq] during manufacturing Global Warming Potential [CO2 eq] during operation	219 kg
Global Warming Potential [CO2 eq] after end of life	-0.639 kg
Main circuit	-0.000 kg
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
at AC-3e rated value maximum	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	47.
— 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 AC-3e — at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
at AC-4 at 400 V rated value	15.5 A
• at AC-5a up to 690 V rated value	35.2 A
at AC-5b up to 400 V rated value	14.1 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	11.4 A
— up to 400 V for current peak value n=20 rated value	11.4 A
— up to 500 V for current peak value n=20 rated value	11.4 A
— up to 690 V for current peak value n=20 rated value	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 value	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	05.4
— 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 0.4 A
— at 440 V rated value— at 600 V rated value	0.4 A 0.25 A
at 600 V rated value with 2 current paths in series at DC-1	0.20 A
with 2 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	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
5 Santant patrio in correct at 50-1	

— 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 110 V rated value	2.5 A		
— at 220 V rated value	1A		
— 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	4114		
— 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 690 V rated value	6 kW		
operating apparent power at AC-6a			
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 600 V for current peak value n=20 rated value	9.9 kVA		
• up to 690 V for current peak value n=20 rated value	13.6 kVA		
operating apparent power at AC-6a	014/4		
• 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	5.2 kVA		
• up to 500 V for current peak value n=30 rated value	6.6 kVA		
up to 690 V for current peak value n=30 rated value	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 			
 limited to 5 s switching at zero current maximum limited to 10 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	225 A; Use minimum cross-section acc. to AC-1 rated value 189 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum 	225 A; Use minimum cross-section acc. to AC-1 rated value 189 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum 	225 A; Use minimum cross-section acc. to AC-1 rated value 189 A; Use minimum cross-section acc. to AC-1 rated value		
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum 	225 A; Use minimum cross-section acc. to AC-1 rated value 189 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value		

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	DC	
control supply voltage at DC rated value	24 V	
operating range factor control supply voltage rated value of magnet coil at DC		
• initial value	0.8	
• full-scale value	1.1	
closing power of magnet coil at DC	5.9 W	
holding power of magnet coil at DC	5.9 W	
closing delay		
• at DC	50 170 ms	
opening delay		
• at DC	15 18 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 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	
at 60 V rated value	2 A	
• at 110 V rated value	1A	
• at 125 V rated value	0.9 A	
at 220 V rated value	0.3 A	
at 600 V rated value	0.1 A	
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)	
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
at 480 V rated value	14 A	
at 600 V rated value	17 A	
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value	1 hp	
— at 230 V rated value	3 hp	
• for 3-phase AC motor	V . Р	
— at 200/208 V rated value	3 hn	
— at 220/230 V rated value	3 hp 5 hp	
— at 460/480 V rated value	10 hp	

context rating of auxiliary contacts according to UL. ABOUT PB00 Short-certain protection design of the true link * for short-circuit protection of the main circuit — with type of coordination 1 required — it is short-circuit protection of the auxiliary switch required * for short-circuit protection of the auxiliary switch required * installation incomfling/ dimensions * for short-circuit protection of the auxiliary switch required * fastering method * fastering method * fastering method side by side mounting * for standing method side by side mounting * for standing method side by side mounting * with side by side mounting - forwards — upwards — of ownwards — of ownwards — of ownwards — of ownwards — of the side * for grounded paris — forwards — of the side — ownwards — of the side — ownwards — of the parts — forwards — ownwards — ownwards — of the parts — forwards — ownwards	— at 575/600 V rated value	15 hp	
Signet certain protection of the main circuit		·	
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 main circuit — with type of assignment 2 required • for short-circuit protection of the auxiliary exist in required • for short-circuit protection of the auxiliary exist in required • for short-circuit protection of the auxiliary exist in required • for short-circuit protection of the auxiliary exist in required • fasterning method		7000/1000	
• for short-direction protection of the main circuit — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — so for short-circuit protection of the auxiliary switch required Installation mounting of illuminations * of a stending position • fastening method • fastening method • fastening method depth with a surface and showed by +/2 2.5° or vertical mounting surface; can be titled forward and belowed by +/2 2.5° or vertical mounting surface. • fastening method depth with side-by-side mounting • fastening method depth with side-by-side mounting • for sowads • for grounded sparts • for grounded parts • for grounded parts • for grounded parts • for forwards • for fire parts • for wards • for fire side • for muxiliary and control circuit • for nuxiliary and control circuit • for nuxiliary and control circuit • for muxiliary and control circuit • for muxiliary and control circuit • for muxiliary contacts • of magnet coil • for morticate • for minger coil • for morticate • for muxiliary contacts • for manufaction of requirities • for muxiliary contacts • for			
with type of condendation 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 statening method fastening method fastening method fastening method side-by-side mounting with s	· ·		
		aG: 634 (690V 100k4), aM: 324 (690V 100k4), BS88: 634 (415V 80k4)	
**Cor short-circuit protection of the auxiliary switch required invalation for invalation position when the protection of the auxiliary switch required by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and backward by **F2.25' on vertical mounting surface; can be titled forward and to on monity and can be the side of on man can be an expected by the surface of on surface and the surface and the side of man can be an expected by the surface and the side of man can be an expected by the su			
mounting position			
#-150" rotation possible on vertical mounting surface, can be sitted forward and backward by *-1.22.5" on vertical mounting surface. • fastening method • fastening method side-by-side mounting * fastening method side-by-side mounting * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes * 55 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * separate * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * separate * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * server and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 * 45 mm * 10 mm * 20 maxillary and control circuit * 10 mm * 20 maxillary and control circuit * 20 maxi	· · · · · · · · · · · · · · · · · · ·	gg. 10 A (300 V, 1 kA)	
* fastening method		+/-180° rotation possible on vertical mounting surface: can be tilted forward and	
Motight			
Motight			
Neight Width 45 mm	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
width 45 mm depth 107 mm required spacing 10 mm - forwards 10 mm - downwards 10 mm - at the side 0 mm - for grounded parts 10 mm - forwards 10 mm - at the side 6 mm - downwards 10 mm - downwards 10 mm - for live parts 10 mm - downwards 10 mm - for will connectable connectable connectable connectable connectable connectable connectable connectable conductor cross-sections Screw-type terminals * for awill aliany and contacts <td>fastening method side-by-side mounting</td> <td>Yes</td>	fastening method side-by-side mounting	Yes	
depth 107 mm 10	height	85 mm	
required spacing • with side-by-side mounting - forwards - upwards - downwards - downwards - of grounded parts - forwards - forwards - upwards - downwards - downwards - downwards - downwards - forwards - downwards - downwards - downwards - downwards - at the side - some - formain current circuit - for auxiliary and control circuit - solid - sol	width		
• with side-by-side mounting - forwards - upwards - at the side - of or grounded parts - forwards - upwards - upwards - downwards - upwards - downwards - downwards - downwards - downwards - downwards - for index at the side - downwards - forwards - downwards - downwards - downwards - downwards - downwards - at the side - for auxiliary contection - for auxiliary and control circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - solid - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - solid - stranded - innely stranded with core end processing - for auxiliary contacts - solid - stranded - innely stranded with core end processing - for AWG cables for main contacts - solid - stranded - innely stranded with core end processing - for auxiliary contacts - solid or stranded - innely stranded with core end processing - for auxiliary contacts - solid or stranded - innely stranded with core end processing - for auxiliary contacts - solid or stranded - innely stranded with core end processing - for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - innely stranded with core end processing - for AWG cables for auxiliary contacts - solid or s	•	107 mm	
forwards			
- upwards	,		
- downwards			
- at the side • for grounded parts - forwards - upwards - at the side - downwards - for live parts - forwards - upwards - for live parts - forwards - upwards - downwards - upwards - downwards - downwards - downwards - downwards - downwards - for man - at the side - for man - at the side - for man - at the side - formal current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil - solid - solid or stranded - finely stranded with core end processing • for AWC cables for main contacts • solid • stranded • finely stranded with core end processing • for faviliary and with core end processing • for faviliary contacts - solid - solid or stranded - finely stranded with core end processing • for AWC cables for main contacts - solid • stranded • finely stranded with core end processing • for faviliary contacts • solid or stranded • finely stranded with core end processing • for faviliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for faviliary contacts	— upwards		
• for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - upwards • for live parts - forwards - upwards - downwards • for live parts - forwards - upwards - downwards - at the side - for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - soli			
		0 mm	
- upwards - at the side - downwards 10 mm • for live parts - forwards - upwards 10 mm - downwards 10 mm - at the side - downwards 10 mm - at the side - downwards - at the side Connectons/ 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 - solid or stranded - finely stranded with core end processing • for MWG cables for main contacts • solid • stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded - finely stranded with core end processing • for auxiliary contacts • solid or stranded - finely stranded with core end processing • for farwiliary contacts • solid or stranded - finely stranded with core end processing • for farwiliary contacts • solid or stranded - finely stranded with core end processing • for farwiliary contacts • solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts			
- 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 screw-type terminals • at contactor for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • for main contacts Screw-type terminals • for AWG cables for auxiliary contacts Screw-type terminals • for AWG cables for auxiliary contacts • solid Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 5x (1 10 mm² 1 10 mm² 1 10 mm² 1 10 mm² 5x (1 10 mm² 1 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 20 mm²) 1 10 mm² 1 10 mm² 1 10 mm² 1 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 20 mm²) 1 10 mm² 2x (1 10 mm² 1 10 mm² 2x (1 10 mm² 2x (1 10 mm² 2x (1 10 mm²), 2x (2.5 mm²), 2x (2.5 mm²) 1 10 mm² 2x (1 10 mm² 2x (1 10 mm²), 2x (2.5 mm²), 2x (2.5 mm²) 2x (2x (1 15 mm²), 2x (2x (2x (2x (2x (2x (2x (2x (2x (2x			
− downwards	·		
for live parts — forwards — upwards — upwards — downwards — at the side Connections/ Torminals 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 — solid or stranded — finely stranded with core end processing • stranded • for AWG cables for main contacts • solid • stranded • for finely stranded with core end processing • for finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG cables for	— at the side	6 mm	
- forwards	— downwards	10 mm	
- upwards - downwards - 10 mm	• for live parts		
- downwards - at the side 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 - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts			
Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • of magnet coil Screw-type terminals • for main contacts • solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) • for AWG cables for main contacts • solid 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 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 • solid 0 r stranded 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for auxiliary contacts - solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	•		
type of electrical connection		10 mm	
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 - solid or stranded - finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • for auxiliary contacts • solid or stranded • finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section		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 — solid or stranded — finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • for new for outcor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for for stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for fawligary contacts • for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section	Connections/ Terminals		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals Screw-type terminals Screw-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — solid or stranded with core end processing for AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² for AWG cables for main contacts solid 1 10 mm² stranded finely stranded with core end processing solid or stranded finely stranded with core end processing solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded for auxiliary contacts — solid or stranded for auxiliary contacts — solid or stranded — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) type of connectable conductor cross-sections for alxiliary contacts — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) a connectable conductor cross-sections for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 			
 at contactor for auxiliary contacts of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid — finely stranded with core end processing • for AWG cables for auxiliary contacts • solid • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 			
• of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 4WG number as coded connectable conductor cross-section	•	**	
type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing 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 AWG number as coded connectable conductor cross section	•		
 for main contacts — solid — solid or stranded — solid or stranded with core end processing — finely stranded with core end processing — for AWG cables for main contacts — solid — stranded — stranded — stranded — finely stranded with core end processing — stranded — stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — solid or stranded — solid or stranded — solid or stranded with core end processing — solid or stranded with core end processing — solid or stranded with core end processing — solid or stranded — solid or stranded — solid or stranded — solid or stranded with core end processing — solid or stranded with core end processi		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 finely stranded with core end processing 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts solid stranded 1 10 mm² finely stranded with core end processing 1 10 mm² finely stranded with core end processing 2.5 mm² finely stranded with core end processing 3 2.5 mm² type of connectable conductor cross-sections 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) finely stranded with core end processing 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) finely stranded with core end processing 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) finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
- solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section		0 (4 05 3) 0 (05 12 3)	
 finely stranded with core end processing for AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section 			
 for AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing 0.5 2.5 mm² finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) for AWG cables for auxiliary contacts for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section			
connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing 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 AWG number as coded connectable conductor cross section			
 solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts media or stranded finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section 		ZX (10 12), ZX (14 8)	
 stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts for linely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section 		4 402	
 finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing for auxiliary contacts solid or stranded for auxiliary contacts finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) finely stranded with core end processing for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section 			
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 finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section		0.5 2.5 mm²	
type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)			
 for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 	· · · · · · · · · · · · · · · · · · ·	U.O ∠.O IIIIII	
 — solid or stranded — finely stranded with core end processing ● for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 			
— finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section	•	0 (0 5 4 5 2) 0 (0 75 2 5 2)	
• for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section			
AWG number as coded connectable conductor cross section			
section		ZX (ZU 10), ZX (18 14)	
• for main contacts 16 8			
	• for main contacts	16 8	
• for auxiliary contacts 20 14	for auxiliary contacts	20 14	

Safety related data		
product function		
 mirror contact according to IEC 60947-4-1 	Yes	
suitability for use safety-related switching OFF	Yes; applies only to contactor operating mechanism	
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	
IEC 61508		
T1 value		
• for proof test interval or service life according to IEC 20 a 61508		
Electrical Safety		
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
Approvals Certificates		
General Product Approval		







Confirmation





Genera	l Produ	ict Approval
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EMV

Functional Saftey

Test Certificates

<u>KC</u>





Type Examination Cer-<u>tificate</u>

Type Test Certificates/Test Report

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

Test Certificates

Marine / Shipping

Miscellaneous











Marine / Shipping

other

Dangerous Good

Environment



Miscellaneous

Confirmation

Transport 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=3RT2025-1BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1BB40 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BB40

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

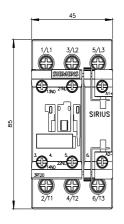
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2025-1BB40&lang=en

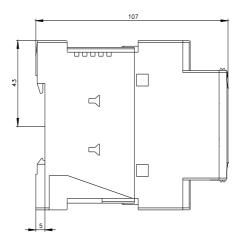
Characteristic: Tripping characteristics, I2t, Let-through current

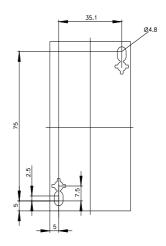
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BB40/char

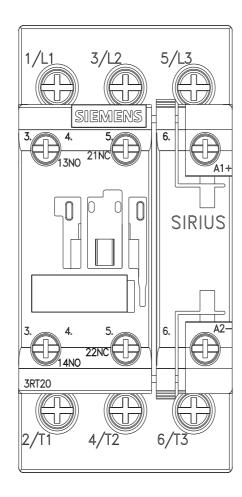
Further characteristics (e.g. electrical endurance, switching frequency)

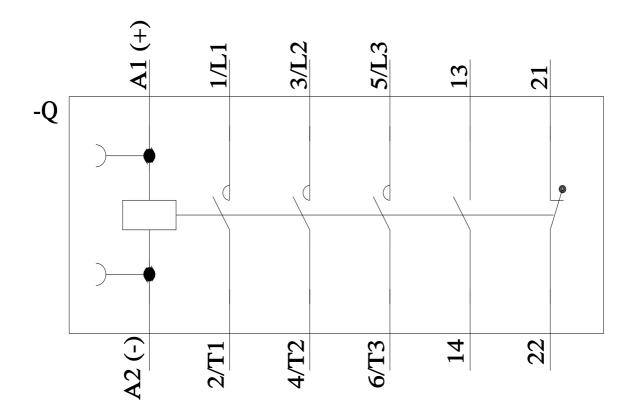
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1BB40&objecttype=14&gridview=view1











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