SIEMENS

Data sheet 3RT2025-1BM40



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 220 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
Weight	0.587 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	221 kg
Global Warming Potential [CO2 eq] during manufacturing	2.65 kg
Global Warming Potential [CO2 eq] during operation	219 kg
Global Warming Potential [CO2 eq] after end of life	-0.639 kg
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
at AC-3e rated value maximum	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 	40 A
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ 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	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 valueat AC-6a	14.1 A
— 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	
— 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 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1 at 24 V roted value.	25 A
— at 24 V rated value — at 60 V rated value	35 A 35 A
— at 100 V rated value — 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
— at 000 v rated value	U.U A

with 3 current naths in series at DC-1	
 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 110 V rated value	2.5 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-	II NVV
4	
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	7.8 kVA
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	
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
	6.6 kVA
up to 500 V for current peak value n=30 rated value	
up to 690 V for current peak value n=30 rated value short time withstand current in cold operating state up to	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 3 s switching at zero current maximum limited to 10 s switching at zero current maximum	189 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 10's switching at zero current maximum Ilmited to 30's switching at zero current maximum	140 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 50 s switching at zero current maximum Ilmited to 60 s switching at zero current maximum	115 A; Use minimum cross-section acc. to AC-1 rated value
·	110 A, USE HIIIIIII GUSS-SECTION ACC. TO AC-1 Tateu Value
no-load switching frequency	

100	4 500 4/1
• at DC	1 500 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	DC
control supply voltage at DC rated value	220 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 110 V rated value at 125 V rated value	0.9 A
at 125 V rated value 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	44.0
at 480 V rated value at 600 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 	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp

contact rating of auxillary contacts according to UL A600 / P600 A600 / P600	— at 460/480 V rated value	10 hp
Short-circular protection design of the fuse tink	— at 575/600 V rated value	15 hp
design of the fuse link I of orthort-drout protection of the main circuit — with type of coordination in required — with type of assignment 2 required girl 10, 4 (500 V, 1.84), 4 (500 V, 1.004), BS88: 53A (415V,80kA) girl 10, 4 (500 V, 1.84), 4 (500 V, 1.004), BS88: 53A (415V,80kA) girl 10, 4 (500 V, 1.84), 4 (500 V, 1.004), BS88: 53A (415V,80kA) girl 10, 4 (500 V, 1.84), 4 (500 V, 1.004), BS88: 53A (415V,80kA) girl 10, 5 (500 V, 1.004) girl	contact rating of auxiliary contacts according to UL	A600 / P600
• for short-circult protection of the main circuit — with type of assignment 2 required for short-circult protection of the auxiliary switch required fratilitation incumpting dimensions mounting position # 4-180" rotation possible on vertical mounting surface; can be tilted forward and backward by *-2.25" on vertical mounting surface. # 55 mm # 65 mm # 66 mm # 66 mm # 66 mm # 67 grounded parts — of ownwards — ow	Short-circuit protection	
- with type of contrination 1 required - with type of assignment 2 required - with type of assignment 2 required - for short-circular protection of the auxiliary switch required installation incuming (ministro): for short-circular protection of the auxiliary switch required fination incuming terminations fastering method side-by-side mounting fastering method side-by-side mounting fastering method side-by-side mounting - fastering method side-by-side mounting - fastering method side-by-side mounting - with side-by-side mounting - vith side-by-side mounting - vith side-by-side mounting - forwards - upwards - forwards -	design of the fuse link	
- with type of assignment 2 required of or short-circuit protection of the auxiliary switch required installation mounting crimensions mounting position fastening method side by-side mounting fastening method height odd that the side of the sid	 for short-circuit protection of the main circuit 	
* of a short-circular protection of the auxiliary switch required installation incenting dimensions **mounting position** **mounting position** **fastering method side-by-side mounting Yes **screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 80715 **height** **width** **width** **width** **with side-by-side mounting** **with side-by-side mounting side side side side side side side side	 — with type of coordination 1 required 	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
Installation/ mounting/ dimensions mounting position 4-180° rotation possible on vertical mounting surface, can be tilled forward and backward by 4-2.25° on vertical mounting surface. fastening method side by-side mounting Fastening method Seriew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 45 mm depth 6pth 10 mm - forwards - upwards - downwards - of more and	 — with type of assignment 2 required 	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
Mounting position	for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
fastening method side-by-side mounting fastening method fastenin	Installation/ mounting/ dimensions	
fastening method height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height serve and snap-on mounting onto min serve and snap-on mounting ont	mounting position	
height width 45 mm depth 107 mm required spacing • with side-by-side mounting — forwards 10 mm — downwards 10 mm — at the side 0 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — the side 6 mm — downwards 10 mm — forwards 10 mm — ownwards 10 mm — ownwards 10 mm — ownwards 10 mm — ownwards 10 mm — of main current circuit 5 mm — ownwards 10 mm — at the side 6 mm — ownwards 10 mm — ownwar	fastening method side-by-side mounting	Yes
width depth 107 mm required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side — forwards — ownwards — forwards — forwards — ownwards — ownwar	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 — ownwards — at the side — downwards — the side — of or grounded parts — forwards — at the side — downwards — to man — at the side — downwards — to man — ownwards — to man — ownwards — forwards — forwards — forwards — forwards — forwards — forwards — ownwards — own	height	85 mm
required spacing with side-by-side mounting -forwards -upwards -upwards -downwards -at the side -for grounded parts -forwards -upwards -to for grounded parts -forwards -to mwards -to mw	width	45 mm
with side by-side mounting	depth	107 mm
forwards upwards	required spacing	
- upwards - downwards - at the side • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - for live parts - forwards - forwards - forwards - forwards - downwards - for live parts - forwards - upwards - downwards - for main current circuit - for auxiliary and control circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - solid - solid - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - solid - siranded - finely stranded with core end processing - for AWG cables for main contacts - solid or stranded - finely stranded with core end processing - for downwards - solid or stranded - finely stranded with core end processing - for downwards - solid or stranded - finely stranded with core end processing - for downwards - solid or stranded - finely stranded with core end processing - for with cor	with side-by-side mounting	
	— forwards	10 mm
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - forwards - at the side - downwards • for live parts - forwards - upwards - forwards - upwards - downwards - for main current circuit • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil type of olectrical conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • for AWG 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 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 • for formain contacts • for suxiliary contacts • for formain cont	— upwards	10 mm
for grounded parts forwards forwards upwards at the side downwards forwards forwards forwards forwards forwards forwards upwards upwards downwards forwards forwards forwards downwards downwards downwards downwards for man downwards for man downwards for man downwards	— downwards	10 mm
- forwards	— at the side	0 mm
- upwards - at the side - downwards + for live parts - forwards - upwards - downwards + for live parts - forwards - upwards - downwards + downwards - downwards - downwards - at the side - downwards - at the side - downwards - at the side - for man - at the side - for main current 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 current - for main corrents - solid - solid - solid - solid - solid - solid - finely stranded with core end processing - for AWG cables for main contacts - solid - 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 - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely	 for grounded parts 	
at the side — downwards 10 mm • for live parts — forwards 10 mm — 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 contacts • of magnetic oil 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 stranded • finely stranded with core end processing • for stranded • finely stranded with core end processing • for stranded • finely stranded with core end processing • for 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 main 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 • for auxiliary	— forwards	10 mm
- downwards - for live parts - forwards - upwards - upwards - downwards - downwards - at the side Connections/ Terminals type of electrical connection - for auxiliary and control circuit - so find an 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 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 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 strande - finely stranded with core end processing - for auxiliary cont	— upwards	10 mm
• for live parts — forwards — upwards — upwards — 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 AWG cables for main contacts • solid • stranded • finely stranded with core end processing • for electrical connectable conductor cross-sections • for provided (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 2x (1, 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • finely stranded with core end processing • for AWG 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 auxiliary contacts • for aux	— at the side	6 mm
forwards upwards downwards at the side at contactor for auxiliary contacts and for auxiliary contac	— downwards	10 mm
- upwards - 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 AWG cables for main contacts • solid • 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 • finely stranded with core end processing type of connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • 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 - 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 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 - solid auxiliary contacts - solid a	• for live parts	
- downwards — 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 • for anixiliary and control circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-type terminals Screw-type terminals Screw-type terminals Screw-type terminals • for onnectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • 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 auxiliary contacts • for AWG cables for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • f	— forwards	10 mm
Type of electrical connection • for main current 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 • for auxiliary contacts • solid 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 10 mm²) 2x (1 2.5 mm²), 2x (0.75 2.5 mm²) 2x (2.5 10 mm²), 2x (0.75 2.5 mm²) 2x (2.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (2.5 10 mm²), 2x (2.5 10 mm²)	— upwards	10 mm
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 • finely stranded with core end processing • finely stranded with core end processing • 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 connectable conductor cross-section for auxiliary 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 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 - 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 AWG number as coded connectable conductor cross-section • for main contacts 16 8	— downwards	10 mm
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 • finely stranded with core end processing • finely 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 • 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 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 main contacts 16 8	— at the side	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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing type of 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 • for AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • for auxiliary contacts • for nain contacts • for nain contacts • for main contacts	Connections/ Terminals	
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals for main contacts solid - solid - solid or stranded - finely stranded with core end processing of stranded solid 1 10 mm² solid stranded of inely stranded with core end processing for number as coded connectable conductor cross-section for main contacts solid solid 1 10 mm² stranded finely stranded with core end processing 2 10 mm² solid solid solid finely stranded with core end processing monetable conductor cross-section 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 main contacts for main contacts for main contacts for main contacts 	type of electrical connection	
 at contactor for auxiliary contacts of magnet coil Screw-type terminals Screw-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing of or AWG cables for main contacts solid 1 10 mm² otranded of inely stranded with core end processing e finely stranded with core end processing of stranded of inely stranded with core end processing of onnectable conductor cross-sections of on auxiliary contacts — solid or stranded of auxiliary contacts — solid or stranded of onnectable conductor cross-sections of on auxiliary contacts — solid or stranded — finely stranded with core end processing of on auxiliary contacts — solid or stranded — finely stranded with core end processing of on auxiliary contacts — solid or stranded — finely stranded with core end processing of on auxiliary contacts AWG cables for auxiliary contacts a (0.5 1.5 mm²), 2x (0.75 2.5 mm²) a (2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) a (2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) a (2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) b (0.5 1.5 mm²), 2x (0.75 2.5 mm²) c (0.5 1.5 mm²),	for main current circuit	screw-type terminals
of magnet coil type of connectable conductor cross-sections of or main contacts	 for auxiliary and control circuit 	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 2x (1 2.5 mm²), 2x (2.5 10 mm²) — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • 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 • finely stranded with core end processing • 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 • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8	 at contactor for auxiliary contacts 	Screw-type terminals
 for main contacts — solid — solid or stranded — finely stranded with core end processing for AWG cables for main contacts solid 1 10 mm² stranded stranded 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 finely stranded with core end processing solid or stranded finely stranded with core end processing to 5 2.5 mm² type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts solid or stranded for auxiliary contacts solid or stranded for auxiliary contacts for auxiliary contacts for auxiliary contacts for auxiliary contacts for AWG cables for auxiliary contacts for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section for main contacts for main contacts for main contacts 	of magnet coil	Screw-type terminals
- solid - solid or stranded - solid or stranded - 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 - 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 - 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 - 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 - 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 - 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 - 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 - solid or stranded - solid or strande	type of connectable conductor cross-sections	
- solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • finely stranded • finely 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 - 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 • for main contacts 16 8	• for main contacts	
- 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 • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG number as coded connectable conductor crosssection • for main contacts • for main contacts • for main contacts 16 8	— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
of raw G cables for main contacts connectable conductor cross-section for main contacts o solid o stranded of finely stranded with core end processing connectable conductor cross-section for auxiliary contacts o solid or stranded of finely stranded with core end processing of raw illiary contacts of or auxiliary contacts of or auxiliary contacts of or auxiliary contacts of raw illiary contact	 solid or stranded 	2x (1 2.5 mm²), 2x (2.5 10 mm²)
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 • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8	 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
 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 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 2x (20 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section for main contacts 16 8 	for AWG cables for main contacts	2x (16 12), 2x (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 mode of the conductor cross-sections for auxiliary contacts would be conducted auxiliary contacts for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section for main contacts 	connectable conductor cross-section for main contacts	
 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 finely stranded with core end processing finely stranded with core end processing for AWG cables for auxiliary contacts for main contacts for main contacts 1 10 mm² 2x (0.5 2.5 mm²) 2x (0.75 2.5 mm²) 2x (20 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 	• solid	1 10 mm²
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 - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8	• stranded	1 10 mm²
 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 for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section for main contacts 16 8 	finely stranded with core end processing	1 10 mm²
 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 for AWG number as coded connectable conductor cross section for main contacts 16 8 	connectable conductor cross-section for auxiliary contacts	
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 • for main contacts 16 8	 solid or stranded 	0.5 2.5 mm²
 for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts ■ for main contacts In the formula of the formula of	finely stranded with core end processing	0.5 2.5 mm ²
 — solid or stranded — finely stranded with core end processing ● for AWG cables for auxiliary contacts ■ for main 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 ● for main contacts 16 8 	type of connectable conductor cross-sections	
— finely stranded with core end processing of or 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 of or main contacts 16 8	 for auxiliary contacts 	
• for AWG cables for auxiliary contacts	 — solid or stranded 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
AWG number as coded connectable conductor cross section • for main contacts 16 8	 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
section ● for main contacts 16 8	for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
• for auxiliary contacts 20 14	• 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







General Product Approval

General Product Approval

EMV

Test Certificates

Marine / Shipping

<u>KC</u>





Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping







LRS





Miscellaneous

other

other Railway Dangerous goods Environment

Confirmation

Special Test Certificate

Transport Information



Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2025-1BM40

Cax online generator

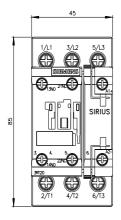
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1BM40

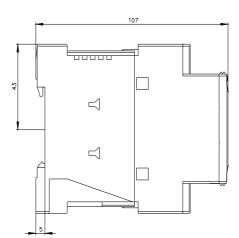
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BM40

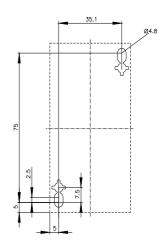
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

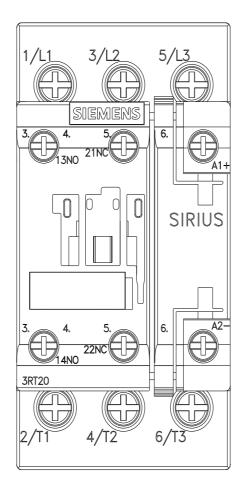
http://www.automation.siemens.com/pulluar/caa_college/files/ https://support.industry.siemens.com/cs/ww/en/ps/3RT20

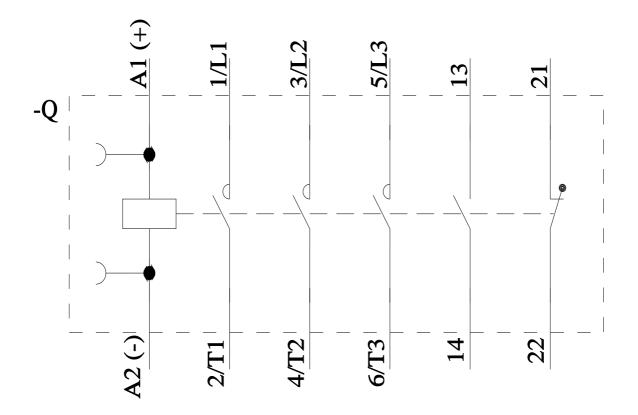
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1BM40&objecttype=14&gridview=view1











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