## **SIEMENS**

Data sheet 3RT2027-1BB40



Power contactor, AC-3 32 A, 15 kW / 400 V 1 NO + 1 NC, 24 V DC 3-pole, size S0 screw terminals

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	8.1 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.7 W
<ul> <li>without load current share typical</li> </ul>	5.9 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation 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 (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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	
<ul> <li>during operation</li> </ul>	-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 %

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	50 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	50 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	42 A
• at AC-3	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-4 at 400 V rated value	22 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	44 A
• at AC-5b up to 400 V rated value	26.5 A
• at AC-6a	
up to 230 V for current peak value n=20 rated value	30.8 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	30.8 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	27 A
— up to 690 V for current peak value n=20 rated value  value	21 A
<ul> <li>at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	20.5 A
— up to 400 V for current peak value n=30 rated value	20.5 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	18 A
— up to 690 V for current peak value n=30 rated value	18 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	10 mm²
cycles at AC-4	
at 400 V rated value	12 A
at 690 V rated value	12 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1A
— at 440 V rated value	0.4 A
— at 440 V rated value  — at 600 V rated value	0.25 A
	0.20 A
with 2 current paths in series at DC-1	05.4
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	

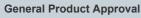
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	1.7 //
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	0.00 A
— at 24 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
	0.27 A
— at 440 V rated value	0.16 A
— at 600 V rated value	0.10 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>— at 24 V rated value</li> </ul>	35 A
— at 24 v rated value — at 110 V rated value	35 A 35 A
— at 220 V rated value  — at 440 V rated value	10 A
— at 440 V rated value — at 600 V rated value	0.6 A 0.6 A
	0.0 A
operating power	
• at AC-3	7.5.120
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
• at AC-3e	7.5.120
— at 230 V rated value	7.5 kW
<ul><li>— at 400 V rated value</li><li>— at 500 V rated value</li></ul>	15 kW
	15 kW
— at 690 V rated value	18.5 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	6 kW
at 690 V rated value	10.3 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	12.2 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	21.3 kVA
• up to 500 V for current peak value n=20 rated value	23.3 kVA
• up to 690 V for current peak value n=20 rated value	25 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	8.1 kVA
• up to 400 V for current peak value n=30 rated value	14.2 kVA
• up to 500 V for current peak value n=30 rated value	15.5 kVA
• up to 690 V for current peak value n=30 rated value	21.5 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	499 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	395 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	260 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	186 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	152 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	1 500 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h

at AC-3e maximum	750 1/h
at AC-3e maximum     at AC-4 maximum	250 1/h
Control circuit/ Control	255 1111
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	21 7
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 17.5 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	1
instantaneous contact	
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     at 125 V rated value	3 A 2 A
at 125 V rated value  at 220 V rated value	
<ul><li>at 220 V rated value</li><li>at 600 V rated value</li></ul>	1 A 0.15 A
operational current at DC-13	U.15 A
• 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	1 A
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	27 A
at 600 V rated value	27 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
<ul> <li>at 110/120 V rated value</li> </ul>	2 hp
— at 230 V rated value	5 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp
contact rating of auxiliary contacts according to UL	A600 / P600

design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions    design of the fuse link   of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of or short-circuit protection of the auxiliary switch required    of of or short-circuit protection of the auxiliary switch required    of of or short	ort-circuit protection	
• for short-circuit protection of the main circuit     — with type of coordination 1 required     — with type of assignment 2 required     — with type of assignment 2 required     — with type of assignment 2 required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for short-circuit protection of the auxiliary switch required     — for such space and space promounting on the state of		
- 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  - side-by-side mounting  - side-by-side mounting  - forwards  - downwards  - downwards  - downwards  - downwards  - downwards  - at the side  - downwards  - at the side  - for live parts  - downwards  - at the side  - for live parts  - downwards  - ownwards		
- with type of assignment 2 required 86.KA)  • for short-circuit protection of the auxiliary switch required  Installation/mounting/dimensions  mounting position  ***F180* rotation possible on vertical mounting surface: can be fill forward and backward by +** 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  • side-by-side mounting  • side-by-side mounting  • with side-by-side mounting  - forwards  - upwards  - upwards  - upwards  - of regrounded parts  - for grounded parts  - downwards  - upwards  - of rike parts  - forwards  - upwards  - of rike parts  - forwards  - upwards  - of rike parts  - forwards  - of main current circuit  • for auxiliary and control circuit  • for main current circuit  - solid  - solid or stranded  - finely stranded with core end processing  • at AVIG cables for main contacts  - solid  • sinch y stranded with core end processing  • at sinch y 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  • fine	·	
for short-circuit protection of the auxiliary switch required	— with type of assignment 2 required	(415V,80kA) gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V,
required mounting position  fastening method  side-by-side mounting width depth  forwards  downwards  downwards  forwards  for	for short-circuit protection of the auxiliary switch	·
mounting position forward and backward by 1/- 22.5° on vertical mounting surface; can be till forward and backward by 1/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  **side-by-side mounting**  **e side-by-side mounting**  **helght**  **width**  **depth**  **required spacing**  **with side-by-side mounting**  **e with side-by-side mounting**  **orwards**  **orwards**  **orwards**  **orwards**  **or grounded parts*  **or for live parts*  **or for live parts*  **or lowwards**  **or upwards**  **or low parts*  **or for live parts*  **or low parts*  **or magnet coil screw-type terminals*  **screw-type terminals*  **Scr	required	
fastening method side-by-side mounting height width depth required spacing with side-by-side mounting fastening method score and snapp-on mounting onto 35 mm standard mounting rai according to DIN EN 60715  Yes Smm depth required spacing with side-by-side mounting forwards for live parts forwards for live parts forwards for live parts forwards for live parts forwards for main contacts solid for stranded finely stranded with core end processing five of connectable conductor cross-sections solid or stranded finely stranded with core end processing full minus for suxiliary and dentine contacts for main contacts formain contacts for main contacts formain cont	tallation/ mounting/ dimensions	
e side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards — upwards — upwards — at the side  • for grounded parts — forwards — upwards — the side  • for grounded parts — forwards — upwards — the side — downwards — 10 mm — upwards — the side — downwards — 10 mm — at the side — downwards — to mm — the side — downwards — upwards — upwards — to mm — the side — downwards — to mm — the side — downwards — to mm — the side — to mm — the side — to railiary and control 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 • at AWG cables for main contacts  • solid • stranded • finely stranded with core end processing	nounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Neight   Width   45 mm   45	astening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
width     45 mm       depth     107 mm       required spacing     • with side-by-side mounting       - forwards     10 mm       - upwards     10 mm       - at the side     0 mm       • for grounded parts     10 mm       - forwards     10 mm       - at the side     6 mm       - at we side     6 mm       - downwards     10 mm       • for live parts     10 mm       - forwards     10 mm       - upwards     10 mm       - downwards     10 mm       - for awaillary and control circuit     screw-type terminals       screw-type terminals     screw-type terminals       type of connectable conductor cross-sections     2x (1 2.5 mm²), 2x (2.5 10 mm²)       - solid or stranded     2x (1 2	side-by-side mounting	Yes
depth   required spacing	eight	85 mm
required spacing  with side-by-side mounting — forwards — upwards — downwards — at the side — for grounded parts — forwards — lo mm — at the side — forwards — upwards — lo mm — at the side — downwards — lo mm — at the side — downwards — lo mm — at the side — downwards — lo mm — downwards — lo mm — upwards — forwards — lo mm — upwards — at the side — at the side — at the side — at maxiliary and control circuit — so fr auxiliary and control circuit — for auxiliary and control circuit — so find a contactor for auxiliary contacts — solid — solid or stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — inely stranded with core end processing — at AWG cables for main contacts — solid — stranded — inely stranded with core end processing — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — inely stranded with core end processing — solid or stranded — solid or stran	vidth	45 mm
with side-by-side mounting  forwards  upwards  downwards  downwards  at the side  for grounded parts  forwards  upwards  for forwards  upwards  at the side  for man  forwards  for live parts  forwards  upwards  for live parts  forwards  for live parts  forwards  for man  forwards  for man  formards  for man  formards  for man  for auxiliary and control circuit  at contactor for auxiliary contacts  for man contacts  somew-type terminals  type of electrical connection  for man current circuit  at contactor for auxiliary contacts  for man contacts  sorew-type terminals  type of connectable conductor cross-sections  for main contacts  somew-type terminals  type of connectable conductor cross-sections  for main contacts  solid  style of connectable conductor cross-section for main contacts  solid  style of consectable conductor cross-section for main contacts  solid  style of consectable conductor cross-section for main contacts  solid  style of consectable conductor cross-section for main contacts  solid  style of consectable conductor cross-section for main contacts  solid  style of consectable conductor cross-section for auxiliary contacts  solid  style of consectable conductor cross-section for auxiliary contacts  solid  style of connectable conductor cross-section for auxiliary contacts  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  finely stranded  finely stran	epth	107 mm
forwards	equired spacing	
- upwards - downwards - 10 mm	with side-by-side mounting	
- downwards - at the side • for grounded parts - forwards - upwards - upwards - at the side - downwards - downwards • for live parts - forwards - upwards - forwards - forwards - forwards - forwards - forwards - forwards - upwards - downwards - downwards - downwards - downwards - at the side - formain current circuit • for auxiliary and control circuit • for main current circuit • for main contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid • finely stranded • finely stranded • finely stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • 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	— forwards	10 mm
- at the side  • for grounded parts  - forwards  - upwards  - at the side  - downwards  • for live parts  - forwards  - upwards  - downwards  - to man  • for live parts  - forwards  - downwards  - downwards  - downwards  - downwards  - downwards  - at the side  Connections/ Terminals  type of electrical connection  • 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  • at AWG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts  • solid  • stranded  • finely stranded with core end processing  connectable conductor cross-section for auxiliary 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  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  type of connectable conductor cross-section 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	— upwards	10 mm
• for grounded parts  — forwards — upwards — at the side — downwards — 10 mm  • for live parts — forwards — upwards — upwards — 10 mm  • for live parts — forwards — upwards — 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 — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid 1 10 mm² 1 10 mm² 2 connectable conductor cross-section for auxiliary contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid 0 10 mm² 1 10 mm² 1 10 mm² 2 connectable conductor cross-section for auxiliary contacts • solid 0 2.5 mm² 1 10 mm² 1 10 mm² 2 connectable conductor cross-section for auxiliary contacts • solid 0 2.5 mm² 1 10 mm² 2 connectable conductor cross-section for auxiliary contacts • solid 0 2.5 mm² 1 10 mm² 2 2.5 mm² 2 2.5 mm²	— downwards	10 mm
- forwards - upwards - at the side - downwards - for live parts - forwards - upwards - for live parts - forwards - upwards - upwards - upwards - downwards - downwards - at the side - 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 - solid - finely stranded with core end processing - at AWG cables for main contacts - solid - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - 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	— at the side	0 mm
- upwards - at the side - downwards • for live parts - forwards - upwards - upwards - downwards - upwards - downwards - at the side - downwards - upwards - downwards - at the side - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary contacts - of magnet coil - at contactor for auxiliary contacts - solid - solid - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - 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 -	for grounded parts	
- at the side - downwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - at the side 6 mm   Connections/ Terminals  type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals  - solid - 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 10 mm²) - solid - stranded 1 10 mm² - finely stranded with core end processing 5 tranded 1 10 mm² - finely stranded with core end processing 5 tranded 1 10 mm² - solid - stranded 1 10 mm² - solid - stranded 1 10 mm² - finely stranded with core end processing 5 2.5 mm² - solid or stranded 0.5 2.5 mm²		10 mm
- 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 - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts - solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • 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 • 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	— upwards	10 mm
- 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 - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts - solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • 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 • 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	·	6 mm
for live parts         — forwards         — upwards         — downwards         — at the side  Connections/ Terminals      type of electrical connection         • for main current circuit         • for auxiliary and control circuit         • at contactor for auxiliary contacts         • of magnet coil         type of connectable conductor cross-sections         • for main contacts         — solid         — solid or stranded         — finely stranded with core end processing         • at AWG cables for main contacts         • solid             • solid             • stranded             • finely stranded with core end processing         • solid             • stranded             • finely stranded with core end processing         • solid             • stranded             • finely stranded with core end processing             • solid             • 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             • 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		
- forwards - upwards - upwards - downwards - at the side - 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 - solid or 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 • 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  type of connectable conductor cross-sections		
- upwards - downwards - at the side  Connections/ Terminals  type of electrical connection	·	10 mm
- downwards - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit • at 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 • stranded • finely stranded with core end processing • solid or stranded • solid • solid • solid • solid • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • 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 • 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  type of connectable conductor cross-sections		
- 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  — solid or stranded — finely stranded with core end processing  • stranded • finely stranded with core end processing  • solid • stranded • solid • stranded • finely stranded with core end processing • solid or 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  type of connectable conductor cross-sections	·	
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 • stranded • stranded • stranded • finely stranded with core end processing • solid or stranded • solid or stranded • solid or stranded • stranded • 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  type of connectable conductor cross-sections		
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 • stranded • 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 • 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  type of connectable conductor cross-sections		
• 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     • at 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     • 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     • solid or 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     • 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 and control circuit     • at contactor for auxiliary contacts     • of magnet coil      **Screw-type terminals**      **Screw-type term	•	screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>— solid</li> <li>— at AWG cables for main contacts</li> <li>— solid</li> <li>— in at AWG cables for main contacts</li> <li>— solid</li> <li>— solid</li> <li>— solid</li> <li>— solid</li> <li>— solid</li> <li>— stranded</li> <li>— stranded</li> <li>— in 10 mm²</li> <li>— stranded with core end processing</li> <li>— in 10 mm²</li> <li>— solid or stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded with core end processing</li> <li>— solid or stranded of inely stranded or inel</li></ul>		•
• of magnet coil  type of connectable conductor cross-sections  • for main contacts  — solid  — solid or stranded — finely stranded with core end processing  • at AWG cables for main contacts  • solid  stranded  • stranded  • stranded  • stranded  • stranded  • finely stranded with core end processing  • solid  • stranded  • finely stranded with core end processing  • solid  • 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  • finely stranded conductor cross-sections	-	· · · · · · · · · · · · · · · · · · ·
type of connectable conductor cross-sections  of for main contacts	·	
<ul> <li>for main contacts  — solid  — solid or stranded  — solid or stranded  — finely stranded with core end processing  • at AWG cables for main contacts  • solid  • 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  • solid or 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  • finely stranded with core end processing  • solid or stranded  • finely stranded with core end processing  • solid or stranded  • solid or stranded</li></ul>	-	odew-type terminals
- solid - solid or stranded - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - solid - solid - solid - finely stranded with core end processing - at AWG cables for main contacts - solid - stranded - stranded - finely stranded with core end processing - solid - stranded - 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 - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - solid o	•	
- solid or stranded - finely stranded with core end processing  ● at AWG cables for main contacts  • solid • stranded • finely stranded with core end processing  • solid • stranded • finely stranded with core end processing  • solid • finely stranded with core end processing • solid or stranded • finely 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		2v (1 2 5 mm²) 2v (2 5 10 mm²)
<ul> <li>— finely stranded with core end processing         <ul> <li>at AWG cables for main contacts</li> <li>2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²</li> </ul> </li> <li>connectable conductor cross-section for main contacts         <ul> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>1 10 mm²</li> </ul> </li> <li>connectable conductor cross-section for auxiliary contacts         <ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>1 2.5 mm²</li> </ul> </li> <li>o.5 2.5 mm²</li> <li>type of connectable conductor cross-sections</li> </ul>		
<ul> <li>at AWG cables for main contacts</li> <li>connectable conductor cross-section for main contacts</li> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>2x (16 12), 2x (14 8)</li> <li>1 10 mm²</li> <li>1 10 mm²</li> <li>2 10 mm²</li> <li>1 10 mm²</li> <li>1 10 mm²</li> <li>2 2.5 mm²</li> <li>1 2.5 mm²</li> <li>1 2.5 mm²</li> <li>2 2.5 mm²</li> <li>3 2.5 mm²</li> <li>4 20 mm²</li> <li>5 2.5 mm²</li> <li>6 finely stranded conductor cross-sections</li> </ul>		
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  type of connectable conductor cross-sections		
solid     stranded     stranded     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 or stranded     solid or stranded     finely stranded with core end processing     type of connectable conductor cross-sections	onnectable conductor cross-section for main	ZA (10 12), ZA (14 0)
stranded     inely stranded with core end processing     1 10 mm²      connectable conductor cross-section for auxiliary contacts     solid or stranded     inely stranded with core end processing     type of connectable conductor cross-sections		1 10 mm <sup>2</sup>
• 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  1 10 mm²  0.5 2.5 mm²  0.5 2.5 mm²  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  0.5 2.5 mm²  0.5 2.5 mm²		
<ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> </ul>	onnectable conductor cross-section for auxiliary	
• finely stranded with core end processing 0.5 2.5 mm²  type of connectable conductor cross-sections		0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections		
		U.J 2.J IIIII
■ ior anxillary contacts	•	
·	•	2v (0.5
— 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)		
• at AWG cables for auxiliary contacts  2x (20 16), 2x (18 14)		ZX (ZU 10), ZX (18 14)
AWG number as coded connectable conductor cross section		

• for main contacts	16 8
<ul> <li>for auxiliary contacts</li> </ul>	20 14
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
B10 value with high demand rate according to SN 31920	450 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
<ul> <li>safety-related switching OFF</li> </ul>	Yes
Certificates/ approvals	

0 15 1 14





Confirmation





<u>KC</u>



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Type Examination Certificate UK Declaration of Conformity



Type Test Certificates/Test Report

Special Test Certificate

<b>Test Certificates</b>	Marine / Shipp	ping
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**Miscellaneous** 











Marine / Shipping other Dangerous Good



Confirmation

Environmental Confirmations



Transport Information

## Further information

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=3RT2027-1BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1BB40

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

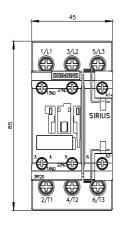
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1BB40

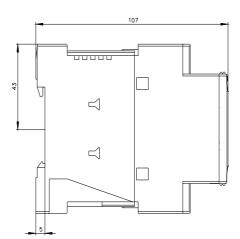
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

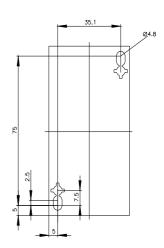
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2027-1BB40&lang=en

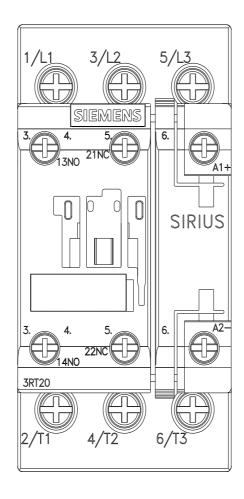
Characteristic: Tripping characteristics, I2t, Let-through current

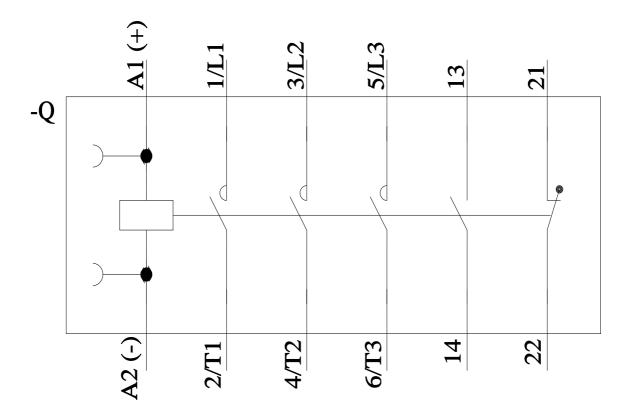
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1BB40/char











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