## **Data sheet**

**SIEMENS** 





Traction contactor, AC-3 17 A, 7.5 kW / 400 V 1 NO + 1 NC with electronic drive 24 V DC, 0.7-1.25\* US, with integrated varistor, 3-pole, Size S0, Spring-type terminal

product brand name	SIRIUS	
product designation	Contactor	
design of the product	With extended operating range	
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>	2.7 W	
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.9 W	
<ul> <li>without load current share typical</li> </ul>	0.8 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	
<ul> <li>of auxiliary circuit rated value</li> </ul>	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>	-40 +70 °C	
during storage	-55 +80 °C	
relative humidity minimum	10 %	

95 %	
maximum lain circuit	
3	
3	
690 V	
690 V	
40 A	
40 A	
35 A	
17 A	
17 A	
17 A	
13 A	
17 A	
17 A	
13 A	
15.5 A	
10 mm <sup>2</sup>	
10 mm <sup>2</sup>	
7.7 A	
7.7 A	
7.5 kW	
4 kW	
7.5 kW	
7.5 kW	
11 kW	
4 kW	
7.5 kW	
7.5 kW	
11 kW	
3.5 kW	
6 kW	
225 At Line minimum gross section and to AC 4 rated value	
225 A; Use minimum cross-section acc. to AC-1 rated value	
225 A; Use minimum cross-section acc. to AC-1 rated value	
180 A; Use minimum cross-section acc. to AC-1 rated value	
115 A; Use minimum cross-section acc. to AC-1 rated value	
115 A; Use minimum cross-section acc. to AC-1 rated value 96 A; Use minimum cross-section acc. to AC-1 rated value	
115 A; Use minimum cross-section acc. to AC-1 rated value	
115 A; Use minimum cross-section acc. to AC-1 rated value 96 A; Use minimum cross-section acc. to AC-1 rated value 1 500 1/h	
115 A; Use minimum cross-section acc. to AC-1 rated value 96 A; Use minimum cross-section acc. to AC-1 rated value	

at AC-3e maximum	1 000 1/h
at AC-3e maximum     at AC-2 at AC-3e maximum	1 000 1/h
• at AC-4 maximum	300 1/h
Ratings for railway applications	300 1/11
thermal current (lth) up to 690 V	40.4
• up to 40 °C according to IEC 60077 rated value	40 A
• up to 70 °C according to IEC 60077 rated value	30 A
Control circuit/ Control	
type of voltage	DC
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.7
• full-scale value	1.25
design of the surge suppressor	with varistor
inrush current peak	3 A
duration of inrush current peak	30 µs
locked-rotor current mean value	0.3 A
locked-rotor current peak	0.52 A
duration of locked-rotor current	180 ms
holding current mean value	45 mA
closing power of magnet coil at DC	6.7 W
holding power of magnet coil at DC	1.4 W
closing delay	
• at DC	50 75 ms
opening delay	
• at DC	30 50 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
Auxiliary circuit number of NC contacts for auxiliary contacts	1
	1
number of NC contacts for auxiliary contacts	
number of NC contacts for auxiliary contacts  • instantaneous contact	1
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts	1 1
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact	1 1 1
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum	1 1 1
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15	1 1 1 10 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value	1 1 1 10 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 400 V rated value	1 1 1 10 A 10 A 3 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 500 V rated value	1 1 1 10 A 10 A 3 A 2 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  operational current at DC-12  • at 24 V rated value	1 1 1 10 A 10 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  operational current at DC-12  • at 24 V rated value  • at 48 V rated value	1 1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A
number of NC contacts for auxiliary contacts  • instantaneous contact  number of NO contacts for auxiliary contacts  • instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  operational current at DC-12  • at 24 V rated value	1 1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value	1 1 1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 60 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 60 V rated value  at 110 V rated value  at 125 V rated value  at 220 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value  at 125 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 48 V rated value  at 110 V rated value  at 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  at 600 V rated value  operational current at DC-13	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  at 220 V rated value  at 600 V rated value  at 600 V rated value  at 24 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value  at 125 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  at 64 V rated value  at 64 V rated value  at 64 V rated value  at 65 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 220 V rated value  at 220 V rated value  at 600 V rated value  at 24 V rated value  at 24 V rated value  at 25 V rated value  at 27 V rated value  at 28 V rated value  at 29 V rated value  at 29 V rated value  at 20 V rated value  at 20 V rated value  at 24 V rated value  operational current at DC-13  at 24 V rated value  at 48 V rated value  at 60 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  at 220 V rated value  at 220 V rated value  at 48 V rated value  at 600 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 600 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value  at 125 V rated value  at 600 V rated value  at 125 V rated value	1 1 1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 8 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 690 V rated value  at 690 V rated value  at 48 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 600 V rated value  at 125 V rated value	1 1 1 10 A  10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  operational current at DC-12  at 24 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 600 V rated value  at 24 V rated value  at 25 V rated value  at 26 V rated value  at 27 V rated value  at 28 V rated value  at 29 V rated value  at 20 V rated value  at 110 V rated value  at 125 V rated value  at 125 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value	1 1 1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 8 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A
number of NC contacts for auxiliary contacts  instantaneous contact  number of NO contacts for auxiliary contacts  instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  at 230 V rated value  at 400 V rated value  at 690 V rated value  at 690 V rated value  at 48 V rated value  at 48 V rated value  at 110 V rated value  at 125 V rated value  at 600 V rated value  at 125 V rated value	1 1 1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 8 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A

at 600 V rated value  yielded mechanical performance [hp]  for single-phase AC motor  - at 110/120 V rated value - at 230 V rated value  for 3-phase AC motor  - at 200/208 V rated value  - at 220/230 V rated value  - at 460/480 V rated value  - at 575/600 V rated value  contact rating of auxiliary contacts according to UL  17 A  17 A  17 A  18 A  17 A  18 A  19 A  18 A  19 A  19 A  10 A		
visited machanical performance (hp)	<ul> <li>at 480 V rated value</li> </ul>	14 A
• for single-phase AC motor — at 101/20 V rated value — at 220/20 V rated value — 1 379/20 V rated value — 1 420/20 V rated value — 1 420/20 V rated value — 1 4579/60 V rated value — 1 579/60 V rated value — 2 579/60 V r		17 A
at 101/20 V rated value	yielded mechanical performance [hp]	
— at 220 V rated value	· .	
• for 3-phase AC motor  — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 450/500 V rated value — at 575/600 V rated value  Froduct function short circuit protection  design of the fuse link — with type of coordination 1 required — with type of assignment 2 required — with side-by-side mounting — with side-by-side mounting — with side-by-side mounting — odownwards — at the side — odownwards — at the side — odownwards — of the parts — forwards — of the parts — forwards — other parts — for required parts — of maniferation contects • for nani contacts • for nani contacts • for nani contacts • for nani contacts — solid or stranded — level y stranded with core end processing — at AWC cables for main contacts	<ul> <li>— at 110/120 V rated value</li> </ul>	1 hp
- at 220/220 V rated value	— at 230 V rated value	3 hp
- at 220/230 V rated value	<ul> <li>for 3-phase AC motor</li> </ul>	
at 480/480 V rated value	<ul> <li>at 200/208 V rated value</li> </ul>	3 hp
	<ul> <li>at 220/230 V rated value</li> </ul>	5 hp
A600 / O600	<ul> <li>at 460/480 V rated value</li> </ul>	10 hp
Short-circuit protection product function short circuit protection design of the fuse link	<ul> <li>at 575/600 V rated value</li> </ul>	15 hp
Product function short circuit protection   See   For short-circuit protection of the main circuit	contact rating of auxiliary contacts according to UL	A600 / Q600
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for switch switch and switch and switch according to DIN K	Short-circuit protection	
design of the fuse link	product function short circuit protection	No
— with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  • side-by-side mounting  • side-by-side mounting  • side-by-side mounting  • side-by-side mounting  • with side-by-side mounting  • of rowards  • forwards  • for live parts  • forwards  • for main current circuit  • for auxillary and control circuit  • for auxillary and control circuit  • for main current circuit  • for main current circuit  • for main cortacts  • of magnet coil  type of connectable conductor cross-sections  • formal stranded  • finely stranded without core end processing  • at AWG cables for main contacts  type of connectable conductor cross-sections  • type of connectable conductor cross-sections	· · · · · · · · · · · · · · · · · · ·	
— with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  • side-by-side mounting  • side-by-side mounting  • side-by-side mounting  • side-by-side mounting  • with side-by-side mounting  • of rowards  • forwards  • for live parts  • forwards  • for main current circuit  • for auxillary and control circuit  • for auxillary and control circuit  • for main current circuit  • for main current circuit  • for main cortacts  • of magnet coil  type of connectable conductor cross-sections  • formal stranded  • finely stranded without core end processing  • at AWG cables for main contacts  type of connectable conductor cross-sections  • type of connectable conductor cross-sections	for short-circuit protection of the main circuit	
- with type of assignment 2 required equired equired required (ps. 10 A (500 V, 10AA), aM: 20A (690 V, 10AA), BS88: 25A (415 V,80A) (ps. 10 A (500 V, 1 AA) (ps. 10 A (500 V, 1 AA)) (ps. 10 A (500 V, 1 AA) (ps. 10 A (500 V, 1 AA)) (ps. 10 A (500 V, 1 AA) (ps. 10 A (500 V		qG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
of short-circuit protection of the auxiliary switch required  installation/mounting/dimensions  mounting position		
required		
#/-180* rotation possible on vertical mounting surface; can be titled forward and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled for surface for one to */- 45 mm on the \$4.5* mm one to */- 45 mm one to */-		J(,,
#/-180* rotation possible on vertical mounting surface; can be titled forward and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served and backward by */- 22.5* on vertical mounting surface served by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward backward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled forward by */- 22.5* on vertical mounting surface; can be titled for surface for one to */- 45 mm on the \$4.5* mm one to */- 45 mm one to */-	Installation/ mounting/ dimensions	
fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  is side-by-side mounting height width depth 102 mm  width depth 107 mm  required spacing is with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — 10 mm — of rowards — upwards — 10 mm  if or grounded parts — forwards — upwards — at the side — downwards — 10 mm — of nive parts — forwards — to fine parts — forwards — upwards — to mm — the side — downwards — to mm — to mm  if or ive parts — forwards — upwards — to mm — upwards — to mm — to mm  if or main current circuit of or auxiliary and control circuit • of or 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 — at AVIG cables for main contacts  type of connectable conductor cross-sections  for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — at AVIG cables for main contacts  type of connectable conductor cross-sections  fyee of connectable conductor cross-sections		+/-180° rotation possible on vertical mounting surface; can be tilted
e side-by-side mounting         Yes           height width         45 mm           depth         107 mm           required spacing         ****           • with side-by-side mounting         ****           — forwards         10 mm           — upwards         10 mm           — downwards         10 mm           — for grounded parts         10 mm           — forwards         10 mm           — upwards         10 mm           — at the side         6 mm           — downwards         10 mm           • for live parts         10 mm           — forwards         10 mm           — upwards         10 mm           — downwards         10 mm           — at the side         6 mm           Connections/ Terminals         10 mm           connections/ Terminals         5 mm           type of electrical connection         6 mm           • for main current circuit         spring-loaded terminals           • at contactor for auxiliary and control circuit         spring-loaded terminals           • of magnet coil         Spring-type terminals           type of connectable conductor cross-sections         for main contacts         2x (1 10 mm²)	fastening method	
Meight		according to DIN EN 60715
width         45 mm           depth         107 mm           required spacing         Forwards           with side-by-side mounting         Forwards           - forwards         10 mm           - downwards         10 mm           - downwards         0 mm           - for grounded parts         10 mm           - forwards         10 mm           - upwards         10 mm           - at the side         6 mm           - downwards         10 mm           - for live parts         10 mm           - upwards         10 mm           - upwards         10 mm           - downwards         10 mm           - downwards         10 mm           - downwards         10 mm           - drownwards         10 mm           - for live parts         2 mm           - for main current circuit         spring-loaded terminals           - of magnet coil<	side-by-side mounting	Yes
required spacing  with side-by-side mounting  forwards upwards downwards at the side forwards upwards forwards forwards forwards the side downwards the side forwards the side downwards to mm the side downwards to mm the side downwards to mm upwards to mm upwards to mm downwards to mm downwards at the side downwards at the side downwards at the side downwards at the side for auxiliary 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 sol	height	102 mm
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — upwards — upwards — upwards — the side — downwards — the side — downwards — the side — downwards — to mm — the side — downwards — to mm — the side — downwards — to mm — the side — downwards — upwards — upwards — upwards — upwards — upwards — the side — downwards — the side — downwards — 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 — finely stranded without core end processing • at AWG cables for main contacts  type of connectable conductor cross-sections  type of connectable conductor cross-sections  at AWG cables for main contacts  2x (1 10 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (1 8 mm²)	width	45 mm
<ul> <li>with side-by-side mounting</li> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>o mm</li> <li>for grounded parts</li> <li>forwards</li> <li>upwards</li> <li>forwards</li> <li>upwards</li> <li>at the side</li> <li>6 mm</li> <li>downwards</li> <li>10 mm</li> <li>at the side</li> <li>6 mm</li> <li>downwards</li> <li>10 mm</li> <li>for live parts</li> <li>forwards</li> <li>upwards</li> <li>for main current circuit</li> <li>for main current circuit</li> <li>for main current circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>spring-loaded terminals</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>at Connectable conductor cross-sections</li> </ul>	depth	107 mm
forwards	required spacing	
- upwards 10 mm 10	<ul> <li>with side-by-side mounting</li> </ul>	
- downwards - at the side  • for grounded parts  - forwards 10 mm  - upwards 10 mm  - upwards 10 mm  - at the side 6 mm  - downwards 10 mm  • for live parts  - forwards 10 mm  • for live parts  - forwards 10 mm  - upwards 10 mm  - upwards 10 mm  - upwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - at the side 6 mm   Connections/ Terminals  type of electrical connection • for 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 without core end processing • at AWG cables for main contacts  • at AWG cables for main contacts  type of connectable conductor cross-sections  • at AWG cables for main contacts	— forwards	10 mm
- at the side 0 mm  • for grounded parts  - forwards 10 mm  - upwards 10 mm  - at the side 6 mm  - downwards 10 mm  • for live parts  - forwards 10 mm  • for live parts  - forwards 10 mm  - upwards 10 mm  - at the side 6 mm  - downwards 10 mm  - at the side 6 mm  Connections/ Terminals   type of electrical connection  • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-loaded terminals • of magnet coil Spring-type terminals  type of connectable conductor cross-sections  • for main contacts  - solid 2x (1 10 mm²)  - solid or stranded 2x (1 10 mm²)  - finely stranded with out core end processing - finely stranded without core end processing - at AWG cables for main contacts  • at AWG cables for main contacts 2x (1 6 mm²)	— upwards	10 mm
• for grounded parts  — forwards — upwards — at the side — downwards — 10 mm  — downwards — for live parts — forwards — upwards — upwards — 10 mm  • for live parts — forwards — upwards — 10 mm — upwards — 10 mm — upwards — 10 mm — at the side — 6 mm  Connections/ Terminals  type of electrical connection • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts  type of connectable conductor cross-sections • at AWG cables for main contacts  2x (1 10 mm²)  2x (1 6 mm²)  2x (1 6 mm²)  4 at AWG cables for main contacts  2x (18 8)	<ul><li>downwards</li></ul>	10 mm
- forwards 10 mm 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm - downwards 10 mm - for live parts 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 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 - 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 10 mm - downwards 10 mm - at the side 10 mm - downwards 10 mm - at the side 10 mm - downwards 10 mm	— at the side	0 mm
- upwards - at the side - downwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - at the side 6 mm  Connections/ Terminals  type of electrical connection • for 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  • at WG cables for main contacts  2x (1 10 mm²) - finely stranded without core end processing - at AWG cables for main contacts  type of connectable conductor cross-sections • formain contacts - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts  type of connectable conductor cross-sections  • type of connectable conductor cross-sections - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts  type of connectable conductor cross-sections	<ul> <li>for grounded parts</li> </ul>	
- at the side - downwards 10 mm  • for live parts - forwards - upwards - downwards 10 mm - downwards 10 mm - downwards - at the side 6 mm  Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts  • at AWG cables for main contacts  - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts  type of connectable conductor cross-sections  • for main contacts - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts  - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts  - solid or stranded - solid or solid or stranded - solid or solid or solid or stranded - solid or solid o	— forwards	10 mm
- downwards  • for live parts  - forwards  - upwards  - upwards  - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit  • for auxiliary and control circuit  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  - solid  - solid or stranded  - finely stranded with our cend processing  - finely stranded without core end processing  • at AWG cables for main contacts  type of connectable conductor cross-sections  • type of connectable conductor cross-sections	— upwards	10 mm
<ul> <li>for live parts         <ul> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>Connections/ Terminals</li> <li>type of electrical connection         <ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>spring-loaded terminals</li> </ul> </li> <li>of magnet coil</li> <li>spring-lype terminals</li> <li>for main contacts</li> <li>solid</li> <li>solid</li> <li>solid</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> <li>type of connectable conductor cross-sections</li> </ul>	— at the side	6 mm
forwards	— downwards	10 mm
forwards	for live parts	
- 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 - finely stranded without core end processing • at AWG cables for main contacts  10 mm  6 mm  5 pring-loaded terminals  Spring-loaded terminals  Spring-type terminals  2x (1 10 mm²)  2x (1 10 mm²)  2x (1 10 mm²)  2x (1 6 mm²)  2x (1 8 mm²)	— forwards	10 mm
- 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 - finely stranded without core end processing • at AWG cables for main contacts  10 mm  5 mm  5 mm  5 pring-loaded terminals  Spring-loaded terminals  Spring-type terminals  5 pring-type terminals  2 x (1 10 mm²)  2 x (1 10 mm²)  2 x (1 10 mm²)  2 x (1 6 mm²)  4 at AWG cables for main contacts  5 type of connectable conductor cross-sections		10 mm
— at the side  Connections/ Terminals  type of electrical connection  • for main current circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of magnet coil Spring-type terminals  type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — solid or stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts  type of connectable conductor cross-sections  type of connectable conductor cross-sections  type of connectable conductor cross-sections		10 mm
type of electrical connection  • for main current circuit spring-loaded terminals  • for auxiliary and control circuit spring-loaded terminals  • at contactor for auxiliary contacts Spring-type terminals  • of magnet coil Spring-type terminals  type of connectable conductor cross-sections  • for main contacts  — solid — solid 2x (1 10 mm²) — solid or stranded — finely stranded with core end processing — finely stranded without core end processing 2x (1 6 mm²)  • at AWG cables for main contacts  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 — finely stranded without core end processing • at AWG cables for main contacts  type of connectable conductor cross-sections  2x (1 10 mm²)  2x (1 6 mm²)  2x (1 6 mm²)  2x (1 6 mm²)  2x (1 6 mm²)		
<ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</li> <li>for main contacts</li> <li>for main contacts</li> <li>a solid</li> <li>a solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> </ul>		
<ul> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</li> <li>for main contacts</li> <li>solid</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG cables for main contacts</li> <li>2x (1 10 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (1 8)</li> </ul>		spring-loaded terminals
<ul> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</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>— finely stranded without core end processing</li> <li>— at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> </ul> Spring-type terminals 2x (1 10 mm²) 2x (1 10 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (1 8) 4 type of connectable conductor cross-sections		
<ul> <li>◆ of magnet coil</li> <li>Spring-type terminals</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>— finely stranded without core end processing</li> <li>— finely stranded without core end processing</li> <li>• at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> </ul> Spring-type terminals 2x (1 10 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (18 8)		
type of connectable conductor cross-sections		
<ul> <li>for main contacts         — solid         — solid or stranded         — solid or stranded         — finely stranded with core end processing         — finely stranded without core end processing         — at AWG cables for main contacts         2x (1 10 mm²)         2x (1 6 mm²)         2x (1 6 mm²)         2x (1 8)         2x (1 8)</li> </ul>		oping type terminals
<ul> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> <li>— finely stranded without core end processing</li> <li>— at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> </ul> 2x (1 10 mm²) 2x (1 6 mm²) 2x (1 6 mm²) 2x (18 8)		
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> <li>— at AWG cables for main contacts</li> <li>type of connectable conductor cross-sections</li> <li>2x (1 6 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (18 8)</li> </ul>		2v (1 10 mm²)
<ul> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> <li>• at AWG cables for main contacts</li> <li>2x (1 6 mm²)</li> <li>2x (1 6 mm²)</li> <li>2x (1 8)</li> <li>type of connectable conductor cross-sections</li> </ul>		
— finely stranded without core end processing  ● at AWG cables for main contacts  2x (1 6 mm²)  2x (18 8)  type of connectable conductor cross-sections		
• at AWG cables for main contacts 2x (18 8)  type of connectable conductor cross-sections		
type of connectable conductor cross-sections		
		∠x (1δ δ)
• for auxiliary contacts		
	tor auxiliary contacts	

- solid or stranded 2x (0.5 ... 2.5 mm²) - finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>) - finely stranded without core end processing 2x (0.5 ... 2.5 mm²) • at AWG cables for auxiliary contacts 2x (20 ... 14) AWG number as coded connectable conductor cross section for main contacts 18 ... 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-No 5-1 B10 value with high demand rate according to SN 31920 450 000 proportion of dangerous failures • with low demand rate according to SN 31920 40 % • with high demand rate according to SN 31920 73 % failure rate [FIT] with low demand rate according to SN 100 FIT T1 value for proof test interval or service life according to 20 y IP20 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front product function bus communication No

Certificates/ approvals

## **General Product Approval**





Confirmation



<u>KC</u>



Functional
EMC Safety/Safety of Declaration of Conformity Test Certificates
Machinery



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

## Marine / Shipping













Marine / Shipping other Railway



Confirmation



<u>Vibration and Shock</u> <u>Special Test Certificate</u>

Type Test Certificates/Test Report

**Dangerous Good** 

## **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=3RT2025-2XB40-0LA2

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2025-2XB40-0LA2}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-2XB40-0LA2

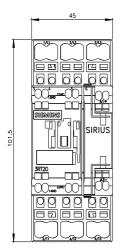
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

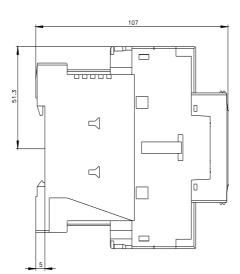
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2025-2XB40-0LA2&lang=en

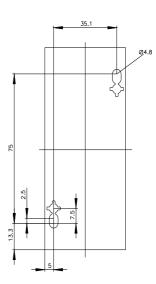
Characteristic: Tripping characteristics, I2t, Let-through current

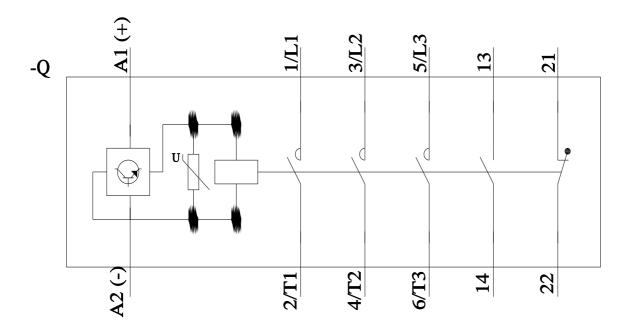
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-2XB40-0LA2/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-2XB40-0LA2&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-2XB40-0LA2&objecttype=14&gridview=view1</a>









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