# **SIEMENS**

Data sheet 3RT2025-1AB04



power contactor, AC-3 17 A, 7.5 kW / 400 V 2 NO + 2 NC, 24 V AC, 50 Hz, 3-pole, Size S0 screw terminal Removable auxiliary switch

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
<ul><li>auxiliary switch</li></ul>	No
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	1.8 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.6 W
<ul> <li>without load current share typical</li> </ul>	7.6 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 AC	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
mechanical service life (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	40 A
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	40 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	35.2 A
at AC-5b up to 400 V rated value	14.1 A
• at AC-6a	
up to 230 V for current peak value n=20 rated value	11.4 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	11.4 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	11.4 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>	11.3 A
— up to 230 V for current peak value n=30 rated value	7.6 A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	7.6 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	10 mm <sup>2</sup>
cycles at AC-4	
at 400 V rated value	7.7 A
at 690 V rated value	7.7 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	0.207.
— at 24 V rated value	35 A
	35 A
— at 110 V rated value	
— 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
<ul><li>at 600 V rated value</li></ul>	1.4 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
<ul><li>— at 110 V rated value</li></ul>	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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	4.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles	
at AC-4	
<ul><li>at 400 V rated value</li></ul>	3.5 kW
at 690 V rated value	6 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	4.5 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	7.8 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.9 kVA
up to 690 V for current peak value n=20 rated value	13.6 kVA
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	3 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	5.2 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	6.6 kVA
• up to 690 V for current peak value n=30 rated value	9.1 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	180 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	115 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	96 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
at AC-3 maximum	1 000 1/h

-t 4.0 0i	4 000 4/1-
• at AC-3e maximum	1 000 1/h
at AC-4 maximum	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
at 50 Hz rated value	24 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	65 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.82
apparent holding power of magnet coil at AC	
● at 50 Hz	7.6 VA
inductive power factor with the holding power of the	
coil	
• at 50 Hz	0.25
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	2
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 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 110 V rated value	3 A
at 125 V rated value	2 A
at 125 V rated value     at 220 V rated value	1 A
	1 A 0.15 A
at 600 V rated value  Operational current at DC 13	0.10 A
operational current at DC-13	6.4
at 24 V rated value	6 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	14 A
at 600 V rated value	17 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	1 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	

	-t 000/000 Vtdl	O.b.
al 480/480 V rated value	— at 200/208 V rated value	3 hp
		·
contact rating of auxillary contacts according to UL  short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit — with type of coordination 1 required  Installation mounting differentiates with the properties of the auxiliary with the required of the properties of		
Short-Circuit protection		·
design of the fuse link		70007 2000
• for short-circuit protection of the main circuit — with type of assignment 2 required with type of assignment 2 required e for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required mounting position  fastening method  • side-by-side mounting  fastening method  • side-by-side mounting  • side-by-side mounting  • with side-by-side mounting  • with side-by-side mounting  • with side-by-side mounting  • of mounting surface  • of mounting surface  • with side-by-side mounting  • with side-by-side mounting  • of mounting  • of mounting  • for grounded parts  • for grounded parts  • for prounded parts  • for five parts  • for wards  • for main current circuit • of or auxiliary and control circuit • of main current circuit • solid • solid or stranded • finely stranded with core end processing • solid • shanded • finely stranded with core end processing • connectable conductor cross-section for auxiliary contacts • solid • finely stranded with core end processing • connectable conductor cross-sections • for connectable conductor cross-sections • for finely stranded with core end processing • solid or stranded • finely stranded with core end processing • connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • connectable conductor cross-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 • connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • connectable conductor cross-sections • for auxiliary contacts • solid or stranded • finely stranded with core end		
- with type of coordination 1 required - with type of assignment 2 required s for short-circuit protection of the auxiliary switch required Installation mounting idmensions  mounting position  mounting position  fastening method side-by-side mounting side-by-side mounting with side-by-side mounting - for with side-by-side mounting - for with side-by-side mounting - with side-by-side mounting - with side-by-side mounting - with side-by-side mounting - for grounded parts - downwards - at the side - downwards - to inversion - for live parts - forwards - to main current circuit - forman current circuit - of main current circuit - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - solid or stranded - finely stranded with core end processing - at May Stranded - finely stranded with core end processing - to make a solid - solid or stranded - finely stranded with core end processing - finely stranded with core end proce	•	
		gG: 63A (690V.100kA), aM: 32A (690V.100kA), BS88: 63A (415V.80kA)
* for short-circul protection of the auxiliary switch required installation/ mounting/ dimensions  mounting position		
installation mounting dimensions  mounting position fastening method forward and backward by ++ 22.5° on vertical mounting surface; can be tilted forward and backward by ++ 22.5° on vertical mounting surface according to DIN EN 60715  * side-by-side mounting	for short-circuit protection of the auxiliary switch	
mounting position    +1.180" rotation possible on vertical mounting surface; can be tilted forward and backward by +2.25 or vertical mounting surface can be tilted forward and backward by +2.25 or overtical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715   yes	·	
forward and backward by 4+ 22.5° on vertical mounting surface scording to DIN EN 60715  side-by-side mounting helpht width depth 141 mm  required spacing  • with side-by-side mounting  — forwards — upwards — downwards — ownwards — ownwards — ownwards — at the side — downwards — at the side — downwards — 10 mm — at the side — downwards — 10 mm — in for live parts — for live parts — for live parts — for live parts — for main current circuit • for auxillary contacts • of magnet coil  type of connectable conductor cross-section for main contacts  • solid • stranded • inelly stranded with core end processing • for sullary stranded with core end processing • for live parts • for main current circuit • stranded • for main current circuit • solid • stranded • finely stranded with core end processing • for connectable conductor cross-section for auxillary contacts • solid or stranded • finely stranded with core end processing • for connectable conductor cross-section for auxillary contacts • solid or stranded • finely stranded with core end processing • for connectable conductor cross-section for auxillary contacts • for connectable	Installation/ mounting/ dimensions	
according to DIN EN 60715	mounting position	
Neight	fastening method	
height width d5 mm depth 141 mm  required spacing • with side-by-side mounting • ownered space of the side of the	• side-by-side mounting	-
width depth		85 mm
required spacing  with side-by-side mounting —forwards — upwards — downwards — at the side  for grounded parts — forwards — to the side — for grounded parts — forwards — at the side — downwards — to mm — upwards — at the side — downwards — forwards — forwards — forwards — forwards — to mm — downwards — to mm — downwards — forwards — to mm —		45 mm
with side-by-side mounting	depth	141 mm
forwards	required spacing	
- upwards	<ul> <li>with side-by-side mounting</li> </ul>	
- downwards - at the side	— forwards	10 mm
- at the side  • for grounded parts  - forwards  - upwards  - at the side  - downwards  • for live parts  - forwards  - upwards  - forwards  - to man  • for live parts  - forwards  - upwards  - downwards  - downwards  - downwards  - downwards  - at the side  - downwards  - downwards  - at the side  - for man  - at the side  - forman  - for main current circuit  - for auxiliary and control circuit  - for auxiliary contacts  - for man current circuit  - solid  - 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  - for auxiliary contacts	— upwards	10 mm
• for grounded parts  — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — of for live parts — forwards — upwards — upwards — upwards — upwards — downwards — downwards — at the side  Connections/ Terminals  type of electrical connection • for auxiliary contacts • of magnet coil  type of connectable conductor cross-section for main contacts — solid — solid or stranded — at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • for nectable conductor cross-section 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 • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts	— downwards	10 mm
forwards upwards upwards at the side downwards at the side downwards 10 mm	— at the side	0 mm
- upwards - at the side - downwards - for live parts - forwards - upwards - upwards - downwards - upwards - downwards - at the side - formain current circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - of magnet coil - 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 - finely stranded with core end processing - solid or stranded - solid or stranded - solid or stranded - solid or stranded	<ul> <li>for grounded parts</li> </ul>	
- 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  • of or auxiliary and control circuit screw-type terminals  • of magnet coil Screw-type terminals  type of connectable conductor cross-sections  • for main contacts  — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²)  — sinely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  • at AWG cables for main contacts  • solid 1 10 mm²  • stranded 5 tranded 1 10 mm²  • finely stranded with core end processing 1 10 mm²  • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  connectable conductor cross-section for main contacts  • solid 1 10 mm²  • stranded 1 10 mm²  • finely stranded with core end processing 1 10 mm²  connectable conductor cross-section for auxiliary contacts  • solid or stranded 6 10 mm²  finely stranded with core end processing 1 10 mm²  • finely stranded with core end processing 1 10 mm²  • finely stranded with core end processing 1 10 mm²  • finely stranded with core end processing 1 10 mm²  • finely stranded with core end processing 0.5 2.5 mm²  type of connectable conductor cross-sections • for auxiliary contacts	— forwards	10 mm
- downwards • for live parts - forwards - upwards - upwards - downwards - at the side  Connections/ Terminals  type of electrical connection • for main contacts - solid - solid or stranded - finely stranded with core end processing • solid or stranded • storanded • 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 • finely stranded with core end processing • 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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts	— upwards	10 mm
• for live parts — forwards — upwards — downwards — at the side  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 • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • 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 • 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 • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts	— at the side	6 mm
- 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 • stranded • finely stranded with core end processing - solid - stranded • finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - for auxiliary contacts	— downwards	10 mm
- 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 • 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 • stranded • finely stranded with core end processing • solid or 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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts	<ul> <li>for live parts</li> </ul>	
- 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 • 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 • 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 • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts	— forwards	10 mm
The side 6 mm  Connections/ Terminals  type of electrical connection  • for main current circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-type terminals • for main contacts - solid - solid or stranded - finely stranded with core end processing • stranded • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid 0 1 10 mm² • stranded • finely stranded with core end processing • solid 0 1 10 mm² • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid 0 0.5 2.5 mm² • solid 0 0.5 2.5 mm² • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • solid 0 0.5 2.5 mm² • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts	— upwards	10 mm
type of electrical connection	— downwards	10 mm
type of electrical connection  • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts  — solid — solid or stranded — finely stranded with core end processing • stranded • stranded • finely stranded with core end processing • 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 • 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
<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>Screw-type terminals</li> <li>4x (1 2.5 mm²), 2x (2.5 10 mm²)</li> <li>2x (1 2.5 mm²), 2x (2.5 10 mm²)</li> <li>2x (1 2.5 mm²), 2x (2.5 10 mm²)</li> <li>2x (1 2.5 mm²), 2x (2.5 10 mm²)</li> <li>1 10 mm²</li> <li>2 10 mm²</li> <li>1 10 mm²</li> <li>2 10 mm²</li> <li>1 10 mm²</li> <li>2 10 mm²</li> <li>3 10 mm²</li> <li>4 10 mm²</li> <li>5 2.5 mm²</li> <li>6 12), 2x (14 28</li> <li>6 12), 2x (14 28</li> <li>7 10</li></ul>	Connections/ Terminals	
<ul> <li>for auxiliary and control circuit</li> <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>otherwise stranded</li> <li>at AWG cables for main contacts</li> <li>at Solid</li> <li>solid</li> <li>tyne of connectable conductor cross-section for main contacts</li> <li>at AWG cables for main contacts</li> <li>solid</li> <li>otherwise stranded</li> <li>finely stranded with core end processing</li> <li>otherwise stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> </ul>	type of electrical connection	
<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>at AWG cables for main contacts</li> <li>at a solid</li> <li>at a so</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 • 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 • 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  • finely stranded with core end processing • finely stranded conductor cross-sections • for auxiliary contacts		**
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 • 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 auxiliary contacts • for auxiliary contacts	-	
<ul> <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 or stranded with core end processing</li> <li>— at AWG cables for main contacts</li> <li>— at AWG cables for main contacts</li> <li>— solid</li> <li>— stranded</li> <li>— stranded</li> <li>— stranded with core end processing</li> <li>— finely stranded with core end processing</li> <li>— solid or stranded</li> <li>— solid o</li></ul>		Screw-type terminals
- 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 • finely stranded with core end processing  • solid • finely stranded with core end processing  • solid or 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 • finely stranded with core end processing  • for auxiliary contacts		
<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> <li>2x (16 12), 2x (14 8)</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>finely stranded with core end processing</li> </ul> </li> <li>type of connectable conductor cross-sections         <ul> <li>for auxiliary contacts</li> </ul> </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>1 10 mm²</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> </ul>		
connectable conductor cross-section for main contacts  • solid • stranded • stranded with core end processing 1 10 mm² • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing  • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts		
contacts  • solid • stranded • stranded • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing  of inely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts		2x (16 12), 2x (14 8)
<ul> <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>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> </ul>	contacts	
• finely stranded with core end processing      connectable conductor cross-section for auxiliary contacts     • solid or stranded     • finely stranded with core end processing      type of connectable conductor cross-sections     • for auxiliary contacts      1 10 mm²      0.5 2.5 mm²      0.5 2.5 mm²      10.5 2.5 mm²      10.5 2.5 mm²		
connectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts		
contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  • for auxiliary contacts		1 10 mm²
<ul> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> </ul>		
type of connectable conductor cross-sections  • for auxiliary contacts	solid or stranded	
for auxiliary contacts	finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>
	type of connectable conductor cross-sections	
0 (0 F 4 F 3) 0 (0 F 5 C 7)	-	
— solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	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
<ul> <li>positively driven operation according to IEC 60947- 5-1</li> </ul>	No
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 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
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	

#### Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



EMC	Safety/Safety of Machinery	Declaration of Conformity	Test Certificates



Type Examination Certificate



Type Test Certificates/Test Report

Special Test Certificate

## Marine / Shipping













## other

Confirmation



Confirmation

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) <a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2025-1AB04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1AB04

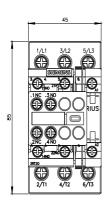
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AB04

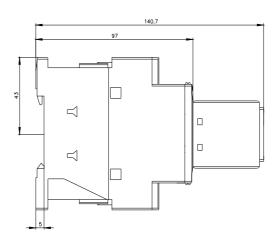
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2025-1AB04&lang=en

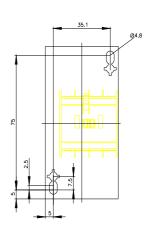
Characteristic: Tripping characteristics, I2t, Let-through current

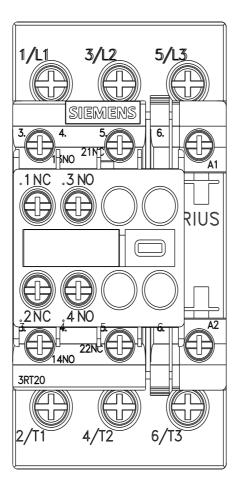
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AB04/char

Further characteristics (e.g. electrical endurance, switching frequency) <a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AB04&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AB04&objecttype=14&gridview=view1</a>









last modified: 6/2/2022 🖸