SIEMENS

Data sheet 3RT2023-1BB40



power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 24 V DC 3-pole, Size S0 screw terminal

| product brand name | SIRIUS |
|---|--------------------------|
| product designation | Power contactor |
| product type designation | 3RT2 |
| General technical data | |
| size of contactor | S0 |
| product extension | |
| function module for communication | No |
| auxiliary switch | Yes |
| power loss [W] for rated value of the current | |
| at AC in hot operating state | 0.6 W |
| at AC in hot operating state per pole | 0.2 W |
| without load current share typical | 5.9 W |
| insulation voltage | |
| of main circuit with degree of pollution 3 rated value | 690 V |
| of auxiliary circuit with degree of pollution 3 rated value | 690 V |
| surge voltage resistance | |
| of main circuit rated value | 6 kV |
| of auxiliary circuit rated value | 6 kV |
| maximum permissible voltage for 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) | |
| of contactor typical | 10 000 000 |
| of the contactor with added electronically optimized auxiliary switch block typical | 5 000 000 |
| of the contactor with added auxiliary switch block typical | 10 000 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| during operation | -25 +60 °C |
| during storage | -55 +80 °C |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |

| 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 | 40 A |
| rated value | |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 40 A |
| | 35 A |
| up to 690 V at ambient temperature 60 °C rated value | 35 A |
| • at AC-3 | |
| — at 400 V rated value | 9 A |
| — at 500 V rated value | 9 A |
| — at 690 V rated value | 9 A |
| • at AC-3e | |
| — at 400 V rated value | 9 A |
| — at 500 V rated value | 9 A |
| — at 690 V rated value | 9 A |
| at AC-4 at 400 V rated value | 8.5 A |
| at AC-5a up to 690 V rated value | 35.2 A |
| at AC-5b up to 400 V rated value | 7.4 A |
| • at AC-6a | |
| — up to 230 V for current peak value n=20 rated | 11.4 A |
| value | |
| up to 400 V for current peak value n=20 rated | 11.4 A |
| value | |
| — up to 500 V for current peak value n=20 rated | 9.1 A |
| value | |
| up to 690 V for current peak value n=20 rated value | 9 A |
| • at AC-6a | |
| — up to 230 V for current peak value n=30 rated | 7.6 A |
| value | 7.0 A |
| — up to 400 V for current peak value n=30 rated | 7.6 A |
| value | |
| up to 500 V for current peak value n=30 rated | 6.1 A |
| value | |
| up to 690 V for current peak value n=30 rated value | 6.1 A |
| minimum cross-section in main circuit at maximum AC-1 | 10 mm² |
| rated value | TO THE |
| operational current for approx. 200000 operating | |
| cycles at AC-4 | |
| • at 400 V rated value | 4.1 A |
| at 690 V rated value | 3.3 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 | |
| — 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 |
| with 3 current paths in series at DC-1 | |
| | |



| — 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 | |
| — 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 | |
| — 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 |
| with 3 current paths in series at DC-3 at DC-5 | 5.1071 |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 35 A |
| | 35 A 10 A |
| — at 220 V rated value | |
| — at 440 V rated value | 0.6 A |
| — at 600 V rated value | 0.6 A |
| operating power | |
| • at AC-3 | 001111 |
| — at 230 V rated value | 2.2 kW |
| — at 400 V rated value | 4 kW |
| — at 500 V rated value | 4 kW |
| — at 690 V rated value | 7.5 kW |
| • at AC-3e | |
| — at 230 V rated value | 2.2 kW |
| — at 400 V rated value | 4 kW |
| — at 500 V rated value | 4 kW |
| — at 690 V rated value | 7.5 kW |
| operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 2 kW |
| • at 690 V rated value | 2.5 kW |
| operating apparent power at AC-6a | |
| up to 230 V for current peak value n=20 rated value | 4.5 kVA |
| up to 400 V for current peak value n=20 rated value | 7.8 kVA |
| • up to 500 V for current peak value n=20 rated value | 7.8 kVA |
| • up to 690 V for current peak value n=20 rated value | 10.7 kVA |
| operating apparent power at AC-6a | |
| • up to 230 V for current peak value n=30 rated value | 3 kVA |
| • up to 400 V for current peak value n=30 rated value | 5.2 kVA |
| • up to 500 V for current peak value n=30 rated value | 5.2 kVA |
| | 7.2 kVA |
| up to 690 V for current peak value n=30 rated value short time withstand current in cold expraising state. | 1.2 NVA |
| short-time withstand current in cold operating state up to 40 °C | 470 A 11 |
| limited to 1 s switching at zero current maximum | 170 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 5 s switching at zero current maximum | 170 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 10 s switching at zero current maximum | 122 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 30 s switching at zero current maximum | 78 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 60 s switching at zero current maximum | 68 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 | 1 000 1/h |
| • at AC-3 maximum | 1 000 1/h |
| | |



| at AC-3e maximum | 1 000 1/h |
|--|---|
| at AC-3e maximum at AC-4 maximum | 300 1/h |
| Control circuit/ Control | 000 ml |
| | DO. |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC | 2414 |
| • rated value | 24 V |
| operating range factor control supply voltage rated value of magnet coil at DC | |
| initial value | 0.8 |
| full-scale value | 1.1 |
| closing power of magnet coil at DC | 5.9 W |
| | |
| holding power of magnet coil at DC | 5.9 W |
| closing delay | FO 470 mg |
| • at DC | 50 170 ms |
| opening delay | 45 47 5 |
| • 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 | 1 |
| instantaneous contact | 4 |
| number of NO contacts for auxiliary contacts instantaneous contact | 1 |
| operational current at AC-12 maximum | 10 A |
| operational current at AC-15 | 1074 |
| at 230 V rated value | 10 A |
| at 400 V rated value | 3 A |
| at 500 V rated value at 500 V rated value | 2 A |
| | 1A |
| at 690 V rated value Approximately approximately DC 42 | I A |
| operational current at DC-12 | 40.4 |
| • at 24 V rated value | 10 A |
| • at 48 V rated value | 6 A |
| • at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 125 V rated value | 2 A |
| at 220 V rated value | 1 A |
| at 600 V rated value | 0.15 A |
| operational current at DC-13 | |
| at 24 V rated value | 10 A |
| • at 48 V rated value | 2 A |
| at 60 V rated value | 2 A |
| • at 110 V rated value | 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 | 7.6 A |
| • at 600 V rated value | 9 A |
| yielded mechanical performance [hp] | |
| for single-phase AC motor | |
| — at 110/120 V rated value | 1 hp |
| — at 230 V rated value | 1 hp |
| • for 3-phase AC motor | |
| — at 200/208 V rated value | 2 hp |
| — at 220/230 V rated value | 3 hp |
| — at 460/480 V rated value | 5 hp |
| — at 575/600 V rated value | 7.5 hp |
| contact rating of auxiliary contacts according to UL | A600 / P600 |
| the state of the s | |



| design of the fase link * for short-circuit protection of the main circuit - with type of coordination 1 required - with type of cossipment 2 required - with type of assignment 3 required - with side-by-side mounting - with side-b | Short-circuit protection | |
|---|--|--|
| of or short circuit protection of the main circuit with type of condination if required with type of condination in required who type of condination is required by the condition is side by-side mounting who side by-side mounting wh | | |
| - with type of coordination 1 required - with type of assignment 2 required 1 or short-circuit protection of the auxiliary switch required. Installation mounting! dimensions mounting position fastening method side-by-side mounting height width depth - forwards - downwards - downwards - downwards - downwards - downwards - if one wards - if one w | _ | |
| | • | gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA) |
| For short-circuit protection of the auxiliary switch required possible | | |
| required installation/mounting/dimensions mounting position side-by-side mounting estimates side-by-side mounting height side-by-side mounting width depth 107 mm required spacing • with side-by-side mounting - forwards - upwards - downwards - at the side - at the side - downwards - for grounded parts - forwards - at the side - downwards - forwards - forwards - forwards - 10 mm - at the side - downwards - forwards - forwards - forwards - forwards - 10 mm - at the side - downwards - forwards - 10 mm - at the side - forwards | | |
| mounting position fastening method side-by-side mounting with depth side-by-side mounting - with side-by-side mounting - downwards - upwards - at the side - downwards - upwards - the side - downwards - upwards - to file parts - forwards - upwards - at the side - downwards - upwards - to file parts - forwards - to file parts - forwards - to file parts - forwards - to main current clicuit - of main current clicuit - solid or stranded - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - 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 stran | required | |
| forward and backward by +f- 22.5' on vertical mounting surface screw and sage-on mounting on 0.35 mm standard mounting rail according to DIN EN 60715 Yes height 85 mm depth 45 mm depth 107 mm required spacing width 45 mm depth 107 mm - forwards 10 mm - downwards 10 mm - downwards 10 mm - downwards 10 mm - forwards 10 mm - for live parts 10 mm - for live parts 10 mm - for live parts 10 mm - for filve parts 10 mm - for filve parts 10 mm - for filve parts 10 mm - for main current circuit 10 mm - for main current circuit 20 mm - for auxiliary and control circuit 30 mm - for main contacts 30 mm - filve of connectable conductor cross-sections 20 mm - filve of connectable conductor cross-section for mails contacts 30 mm - filve of connectable conductor cross-section for mails contacts 30 mm - filve of connectable conductor cross-section for mails contacts 30 mm - filve of connectable conductor cross-section for mails contacts 30 mm - filve of connectable conductor cross-section for mails contacts 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for mails 30 mm - filve of connectable conductor cross-section for auxiliary 30 mm - filve of connectable conductor cross-section for auxiliary 30 mm - filve of connectable conductor cross-section for auxiliary 30 mm - filve of connectable conductor cross-section for auxiliary 30 mm - filve of connectable conductor cross-section for auxiliary 30 mm - filve of connectable conductor cross-section for auxiliary | Installation/ mounting/ dimensions | |
| side-by-side mounting Yes height witch 45 mm depth 107 mm required spacing • with side-by-side mounting — forwards — upwards — ownwards — of main contacts — ownwards — of main current circuit • of or anidary and control circuit • a to contactor for axilliary contacts • solid — solid or stranded — finely stranded • finely stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded — inely stranded with core end processing • inel axillary contacts • solid or stranded • inely stranded with core end processing • inel axillary contacts • solid or stranded • inely stranded with core end processing • conte | mounting position | |
| helght 85 mm width 45 mm depth 107 mm required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side — downwards — forwards — upwards — upwards — upwards — upwards — upwards — downwards — upwards — downwards — forwards — forwards — downwards — forwards — forwards — upwards — downwards — dow | fastening method | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| width depth 107 mm required spacing with side-by-side mounting 107 mm required spacing 2 with side-by-side mounting 107 mm 107 m | side-by-side mounting | Yes |
| depth required spacing e-with side-by-side mounting -with side -with s | height | 85 mm |
| required spacing with side-by-side mounting -forwards - upwards - downwards - at the side of grounded parts - for grounded parts - for grounded parts - downwards - upwards - at the side of mm - upwards - at the side - downwards - at the side - downwards - for live parts - for live parts - for wards - upwards - for live parts - for live parts - for live parts - downwards - upwards - upwards - upwards - upwards - downwards - upwards - downwards - of man the side - for man urrent circuit - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary and control circuit - for far auxiliary contacts - solid - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely strand | width | 45 mm |
| with side-by-side mounting | depth | 107 mm |
| - forwards - upwards - upwards - downwards - at the side • for grounded parts - forwards - upwards - upwards - the side • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - to five parts - forwards - upwards - upwards - to five parts - forwards - upwards - at the side - domnwards - upwards - at the side - domnwards - upwards - at the side - domnwards - upwards - at the side - for main current circuit - of for main current circuit - at contactor for auxiliary contacts - solid - solid or stranded - finely stranded with core end processing - standed - finely stranded with core end processing - solid or stranded - | required spacing | |
| - upwards - downwards - at the side • for grounded parts - forwards - upwards - upwards - at the side - downwards - upwards - at the side - downwards - for live parts - forwards - for live parts - forwards - upwards - for live parts - forwards - upwards - upwards - upwards - upwards - downwards - upwards - downwards - upwards - downwards - downwards - downwards - downwards - at the side Connections/ Torminals type of electrical connection • for main current circuit • at contactor for auxiliary contacts - of auxiliary and control circuit • at contactor for auxiliary contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts - solid • finely stranded with core end processing • solid or stranded • finely stranded with core | with side-by-side mounting | |
| - downwards - at the side • for grounded parts - forwards - upwards - at the side - downwards - downwards • for live parts - for live parts - forwards - upwards • for live parts - forwards - upwards - downwards - upwards - upwards - downwards - downwards - downwards - at the side - for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for main current circuit • for main cortacts • 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 or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded wi | — forwards | 10 mm |
| - at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - forwards • for live parts - forwards - upwards - downwards 10 mm • for live parts - forwards - upwards - downwards 10 mm - at the side - downwards - upwards - downwards - downwards - to mm - at the side - formal current circuit • 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 - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - f | — upwards | 10 mm |
| • for grounded parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — to main current circuit • for auxiliary and control circuit • for main current circuit • for auxiliary and control circuit • for main contacts • of magnet coil type of electrical connections • for main contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — 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 auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts AWG number as coded connectable conductor cross-sections | — downwards | 10 mm |
| - forwards | — at the side | 0 mm |
| - upwards - at the side - downwards • for live parts - forwards - forwards - downwards - downwards - downwards - downwards - downwards - downwards - at the side - downwards - at the side - for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - at AWG cables for main contacts • 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 • finely stranded with core end processing - solid • 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 with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections * for auxiliary contacts AWG number as coded connectable conductor cross-sections * for auxiliary contacts AWG number as coded connectable conductor cross-sections | for grounded parts | |
| - at the side — downwards 10 mm • for live parts — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil screw-type terminals type of connectable conductor cross-sections • for main contacts — solid — solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - at AWG cables for main contacts • solid 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2 10 mm² • finely stranded with core end processing 3 10 mm² • finely stranded with core end processing 4 10 mm² • finely stranded with core end processing 5 2.5 mm² type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded 5 2.5 mm² • finely stranded with core end processing 5 2.5 mm² • finely stranded with core end processing 5 2.5 mm² • finely stranded with core end processing 5 2.5 mm² • finely stranded with core end processing 6 2.5 mm² • finely stranded with core end processing 7 2.5 mm² • finely stranded with core end processing 8 2.5 mm² • finely stranded with core end processing 9 2.5 mm² • at AWG cables for auxiliary contacts 9 2.5 mm² • 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) | — forwards | 10 mm |
| - downwards • for live parts - forwards - upwards - upwards - at the side - 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 currant direction • for main currant direction • 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 1 10 mm² • finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing - solid or stranded - fine | — upwards | 10 mm |
| • for live parts - forwards - upwards - upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary 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 or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid conductor cross sections | — at the side | 6 mm |
| - forwards - upwards - downwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary contacts • for main contacts - solid - solid or stranded - finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • for nectable 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 • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts - AWG number as coded connectable conductor cross-sections • for auxiliary contacts - AWG number as coded connectable conductor cross-sections | — downwards | 10 mm |
| - upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary and control circuit • at contactor for auxiliary and control circuit • 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 • solid • 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 AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts AWG number as coded connectable conductor cross-sections - finely stranded conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts | • 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 • solid • stranded • finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts | — forwards | 10 mm |
| 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 • 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 • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts | — upwards | 10 mm |
| type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • 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 AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts AWG number as coded connectable conductor cross-sections | — downwards | 10 mm |
| type of electrical connection | — at the side | 6 mm |
| • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid — solid connectable 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 • stranded • finely stranded with core end processing • solid 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 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 | Connections/ Terminals | |
| 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 at AWG cables for main contacts stranded at AWG connectable conductor cross-section for main contacts stranded at AWG cables for main contacts at a solid be stranded connectable conductor cross-section for main contacts connectable conductor cross-section for main contacts at a solid at a solid or stranded at a solid or stranded< | type of electrical connection | |
| at contactor for auxiliary contacts of magnet coil type of connectable conductor cross-sections for main contacts — solid — solid or stranded at AWG cables for main contacts Solid at AWG cables for main contacts at solid by stranded with core end processing at a finely stranded with core end processing by stranded connectable conductor cross-section for main contacts connectable conductor cross-section for main contacts at a finely stranded with core end processing at a finely stranded with core end processing<td>for main current circuit</td><td>screw-type terminals</td> | for main current circuit | screw-type terminals |
| of magnet coil type of connectable conductor cross-sections of or main contacts | for auxiliary and control circuit | screw-type terminals |
| type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • 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 • solid • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts - solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts - at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for number as coded connectable | at contactor for auxiliary contacts | Screw-type terminals |
| for main contacts — solid — solid or stranded — finely stranded with core end processing at AWG cables for main contacts • solid 1 10 mm² • stranded • stranded 1 10 mm² • finely stranded with core end processing • solid • finely stranded with core end processing 1 10 mm² • 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 • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section | of magnet coil | 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 ■ 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 ■ for auxiliary contacts ■ 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 ■ at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (1 2.5 mm²), 2x (14 8) 2x (1 2.5 mm²), 2x (14 8) 1 10 mm² 1 10 mm² 2 10 mm² 2 2.5 mm² 2 2.5 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | type of connectable conductor cross-sections | |
| - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid - stranded - stranded - stranded - stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - solid o | for main contacts | |
| finely stranded with core end processing at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts for auxiliary contacts finely stranded with core end processing at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section | | |
| at AWG cables for main contacts connectable conductor cross-section for main contacts 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 type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts for all stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section | | |
| connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — solid or stranded — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) — finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section | | |
| contacts solid stranded finely stranded with core end processing 1 10 mm² connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section AWG number as coded connectable conductor cross section | | 2x (16 12), 2x (14 8) |
| stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded for auxiliary contacts for auxiliary contacts finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) finely stranded with core end processing at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section | 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 solid or stranded finely stranded with core end processing finely stranded with core end processing at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section finely stranded connectable conductor cross section | | |
| connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section | | |
| contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded with core end processing at AWG cables for auxiliary contacts at AWG number as coded connectable conductor cross section AWG number as coded connectable conductor cross section | | 1 10 mm² |
| ◆ finely stranded with core end processing type of connectable conductor cross-sections ◆ for auxiliary contacts — solid or stranded — finely stranded with core end processing ◆ at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 0.5 2.5 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | | |
| type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | solid or stranded | |
| for auxiliary contacts — solid or stranded — finely stranded with core end processing at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | | 0.5 2.5 mm² |
| — solid or stranded — finely stranded with core end processing ■ at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | | |
| — finely stranded with core end processing at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) | for auxiliary contacts | |
| • at AWG cables for auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section | — solid or stranded | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| AWG number as coded connectable conductor cross section | finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| section | | 2x (20 16), 2x (18 14) |
| • for main contacts 16 8 | | |
| | for main contacts | 16 8 |



| for auxiliary contacts | 20 14 |
|---|--|
| Safety related data | |
| product function | |
| mirror contact according to IEC 60947-4-1 | Yes |
| 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 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 | |
| safety-related switching OFF | Yes |
| Cartificates approvale | |

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



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



Type Examination Certificate





Special Test Certificate Type Test Certificates/Test Report

Marine / Shipping













other Dangerous Good

Confirmation

Environmental Confirmations



<u>Transport Information</u>

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=3RT2023-1BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2023-1BB40

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

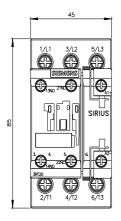
https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1BB40

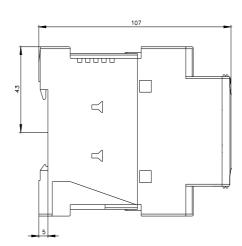
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

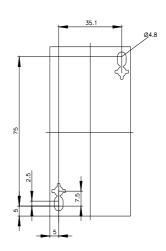
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2023-1BB40\&lang=en}}$

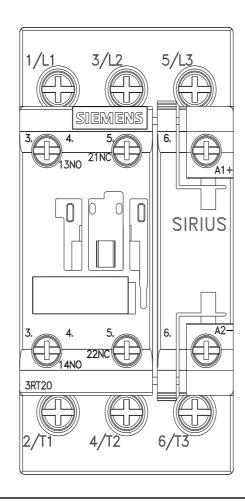
Characteristic: Tripping characteristics, I2t, Let-through current

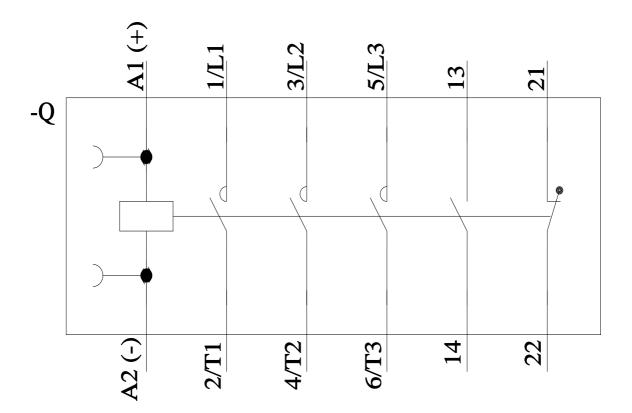












last modified: 6/2/2022 🖸