SIEMENS

Data sheet 3RT2018-1BB42



Power contactor, AC-3 16 A, 7.5 kW / 400 V 1 NC, 24 V DC 3-pole, Size S00 screw terminals

| product brand name | SIRIUS |
|---|----------------------------|
| product designation | Power contactor |
| product type designation | 3RT2 |
| General technical data | |
| size of contactor | S00 |
| 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 | 6.6 W |
| • per pole | 2.2 W |
| power loss [W] for rated value of the current without load current share typical | 4 W |
| 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 acc. to EN 60947-1 | 400 V |
| shock resistance at rectangular impulse | |
| • at DC | 7.3g / 5 ms, 4.7g / 10 ms |
| shock resistance with sine pulse | |
| • at DC | 11,4g / 5 ms, 7,3g / 10 ms |
| mechanical service life (switching cycles) | |
| of contactor typical | 30 000 000 |
| 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 acc. to IEC 81346-2 | Q |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature during operation | -25 +60 °C |
| ambient temperature during storage | -55 +80 °C |
| 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 |
| operational current | |

| at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 | 22 A |
|--|---------------|
| — up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value | 22 A |
| up to 690 V at ambient temperature 60 °C rated value | 20 A |
| • at AC-3 | |
| — at 400 V rated value | 16 A |
| — at 500 V rated value | 12.4 A |
| — at 690 V rated value | 8.9 A |
| • at AC-4 at 400 V rated value | 11.5 A |
| • at AC-5a up to 690 V rated value | 19.4 A |
| at AC-5b up to 400 V rated value | 13.2 A |
| • at AC-6a | |
| — up to 230 V for current peak value n=20 rated value | 9.6 A |
| — up to 400 V for current peak value n=20 rated value | 9.6 A |
| — up to 500 V for current peak value n=20 rated value | 9.6 A |
| up to 690 V for current peak value n=20 rated value at AC-6a | 8.9 A |
| — up to 230 V for current peak value n=30 rated value | 6.6 A |
| up to 400 V for current peak value n=30 rated value | 6.4 A |
| — up to 500 V for current peak value n=30 rated value | 6.4 A |
| — up to 690 V for current peak value n=30 rated value | 6.4 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 4 mm² |
| operational current for approx. 200000 operating cycles at AC-4 | |
| at 400 V rated value | 5.5 A |
| at 690 V rated value | 4.4 A |
| operational current | |
| at 1 current path at DC-1 | |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 2.1 A |
| — at 220 V rated value | 0.8 A |
| — at 440 V rated value | 0.6 A |
| — at 600 V rated value | 0.6 A |
| with 2 current paths in series at DC-1 | 00.4 |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 12 A |
| — at 220 V rated value | 1.6 A |
| — at 440 V rated value | 0.8 A |
| — at 600 V rated value | 0.7 A |
| with 3 current paths in series at DC-1 at 24 V reted value. | 20. 4 |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 20 A 20 A |
| — at 220 V rated value — at 440 V rated value | 1.3 A |
| — at 440 V rated value — at 600 V rated value | 1.3 A |
| operational current | 10 |
| • at 1 current path at DC-3 at DC-5 | |
| - at a carroint path at DO-0 at DO-0 | |
| | 20 A |
| — at 24 V rated value— at 110 V rated value | 20 A 0.1 A |



| with 2 current paths in series at DC-3 at DC-5 | |
|--|--|
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 0.35 A |
| with 3 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 20 A |
| — at 220 V rated value | 1.5 A |
| — at 440 V rated value | 0.2 A |
| — at 600 V rated value | 0.2 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 | 7.5 kW |
| operating power for approx. 200000 operating cycles | |
| at AC-4 | |
| • at 400 V rated value | 2.5 kW |
| • at 690 V rated value | 3.5 kW |
| operating apparent power at AC-6a | |
| • up to 230 V for current peak value n=20 rated value | 3.8 kV·A |
| • up to 400 V for current peak value n=20 rated value | 6.6 kV·A |
| • up to 500 V for current peak value n=20 rated value | 8.3 kV·A |
| • up to 690 V for current peak value n=20 rated value | 10.6 kV·A |
| operating apparent power at AC-6a | |
| up to 230 V for current peak value n=30 rated value | 2.5 kV·A |
| up to 400 V for current peak value n=30 rated value | 4.4 kV·A |
| up to 500 V for current peak value n=30 rated value | 5.5 kV·A |
| up to 300 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value | 7.6 kV·A |
| short-time withstand current in cold operating state | 7.0 KV A |
| up to 40 °C | |
| Iimited to 1 s switching at zero current maximum | 300 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 5 s switching at zero current maximum | 169 A; Use minimum cross-section acc. to AC-1 rated value |
| Iimited to 10 s switching at zero current maximum | 128 A; Use minimum cross-section acc. to AC-1 rated value |
| Ilmited to 30 s switching at zero current maximum | 92 A; Use minimum cross-section acc. to AC-1 rated value |
| Ilmited to 60 s switching at zero current maximum | 74 A; Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency | 74 A, OSC Millimitani Gloss-section acc. to AO-1 fatea value |
| • at DC | 10 000 1/h |
| operating frequency | 10 000 1/11 |
| at AC-1 maximum | 1 000 1/h |
| | |
| • at AC-2 maximum | 750 1/h 750 1/h |
| • at AC-3 maximum | |
| • at AC-4 maximum | 250 1/h |
| Control circuit/ Control | 20 |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC | 04.1/ |
| 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 | 4 W |
| holding power of magnet coil at DC | 4 W |
| closing delay | |
| • at DC | 30 100 ms |
| opening delay | |
| • at DC | 7 13 ms |
| arcing time | 10 15 ms |
| control version of the switch operating mechanism | Standard A1 - A2 |
| control version of the switch operating mechanism | |



| number of INC contacts for auxiliary contacts instantaneous contect operational current at AC-15 maximum | Auxiliary circuit | | |
|--|--|---|--|
| Instantaneous contact Operational current at AC-15 maximum | | 1 | |
| Operational current at AC-15 | instantaneous contact | | |
| et al 230 V rated value 3 A 2 | operational current at AC-12 maximum | 10 A | |
| at 400 V rated value | operational current at AC-15 | | |
| ext 550 V rated value | at 230 V rated value | 10 A | |
| • at 690 V rated value operational current at DC-12 • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 200 V rated value • at 200 V rated value • at 600 V rated value • at 110 V rated value • at 110 V rated value • at 120 V rated value • at 600 V rated value • at 200 V rated va | at 400 V rated value | 3 A | |
| 10 A | at 500 V rated value | 2 A | |
| • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 10 V rated value • at 110 V rated value • at 110 V rated value • at 1220 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 160 V rated value • at 160 V rated value • at 110 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 250 V rated value • at 250 V rated value • at 260 V rated value • at 260 V rated value • at 270 V rated value • at 270 V rated value • at 280 V rated value • brosphense AC motor • at 480 V rated value • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • at 280 V rated value • for single-phase AC motor • for sinch-circuit protection of the main circuit • with type of sasignm | at 690 V rated value | 1 A | |
| • at 48 V rated value • at 50 V rated value • at 150 V rated value • at 125 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 48 V rated value • at 125 V rated value • at 126 V rated value • at 126 V rated value • at 126 V rated value • at 127 V rated value • at 128 V rated value • at 128 V rated value • at 129 V rated value • at 120 V rated value • at 320 V rated value • at 357660 V rated value • at 460480 V rated value • at 460480 V rated value • at 460480 V rated value • at 578600 V rated value • with type of coordination 1 required • for short-circuit protection design of the fuse link • for short-circuit protection of the main circuit • with type of coordination 1 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of coordination 1 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • with type of sasignment 2 required • for short-circuit protection of the main circuit • wit | operational current at DC-12 | | |
| at 160 V rated value | at 24 V rated value | 10 A | |
| e at 110 V rated value e at 125 V rated value 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A | at 48 V rated value | 6 A | |
| at 125 V rated value 1 A | at 60 V rated value | 6 A | |
| at 220 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 36 0 V rated value at 36 0 V rated value at 36 0 V rated value at 110 V rated value at 110 V rated value at 20 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 200 V rated value but 600 V rated value at 200 V rated value at 200 V rated value but 600 V rated value at 200 V rated value at 200 V rated value but 600 V rated value at 200 V rated value at 200 V rated value at 200 V rated value but 600 V rated value at 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 600 V rated value but 600 V rated value at 6 | at 110 V rated value | 3 A | |
| a 1600 V rated value | at 125 V rated value | 2 A | |
| e at 24 V rated value | at 220 V rated value | 1 A | |
| • 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 126 V rated value • at 126 V rated value • at 127 V rated value • at 128 V rated value • at 128 V rated value • at 129 V rated value • at 129 V rated value • at 129 V rated value • at 120 V rated value • at 120 V rated value • at 125 V rated value • at 125 V rated value • at 126 V rated value • at 127 V rated value • at 128 V rated value • at 129 V rated value • at 129 V rated value • for single-phase AC motor • at 110 v rated value • at 220 v rated value • at 1575/600 V rated value • at 1575/600 V rated value • at 1575/600 V rated value • with type of coordination 1 required • with type of coordination 1 required • with type of sasignment 2 required • with vipe of assignment 2 required • with type of sasignment 2 required • side-by-side mounting • side-by-side mounting | at 600 V rated value | 0.15 A | |
| at 48 V rated value at 110 V rated value 2 A at 60 V rated value 2 A at 110 V rated value 3 1 A at 125 V rated value 3 1 220 V rated value 4 at 220 V rated value 5 at 600 V rated value 5 at 600 V rated value 6 at 600 V rated value 7 at 640 V rated value 9 at 600 V rated value 1 | operational current at DC-13 | | |
| at 160 V rated value at 110 V rated value at 125 V rated value 0.9 A at 220 V rated value 0.3 A 0.1 A | • at 24 V rated value | 10 A | |
| at 110 V rated value at 125 V rated value 0.9 A at 125 V rated value 0.3 A at 600 V rated value 0.1 A contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) LICSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A at 600 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor - at 1800 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor - at 230 V rated value 2 hp for 3-phase AC motor - at 200/208 V rated value 3 hp - at 220/230 V rated value - at 220/230 V rated value - at 270/208 V rated value - at 480/480 V rated value - at 480/480 V rated value - at 575/600 V rated value - at 575/600 V rated value - at 675/600 V rated value - at 757/600 V rated value - at 675/600 V rated value - at 757/600 V rated value - at 675/600 V rated value - at 757/600 V rated value - at 800 V rated value - at 757/600 V rated value - at 757/600 V rated value - at 800 V rate | • at 48 V rated value | 2 A | |
| at 125 V rated value at 220 V rated value 2.3 A at 600 V rated value 2.1 A contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 10/120 V rated value 11 A yielded mechanical performance [hp] for single-phase AC motor at 10/120 V rated value 1 hp at 220/230 V rated value 2 hp at 220/230 V rated value 3 hp at 575/600 V rated value 1 hp at 575/600 V rated value 1 hp at 575/600 V rated value 1 hp at 575/600 V rated value 3 hp at 575/600 V rated value 3 hp at 575/600 V rated value 3 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required for short-circuit protection of the auxiliary switch required with type of assignment 2 required forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting rail according to DIN EN 60715 **eside-by-side mounting** **with side-by-side mounting | • at 60 V rated value | 2 A | |
| at 220 V rated value at 600 V rated value 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 11 A at 600 V rated value 2 in 14 A at 600 V rated value 4 in 100 V rated value 5 for single-phase AC motor — at 110 /120 V rated value 6 for 3-phase AC motor — at 220 V rated value 9 for 3-phase AC motor — at 220 V rated value 10 hp — at 220/230 V rated value 9 for 3-phase AC motor — at 460 480 V rated value 9 for 3-phase AC motor — at 460 480 V rated value 9 for 3-phase AC motor — at 460 480 V rated value 9 for 3-phase AC motor At 600 / Q800 Short-circuit protection of the main circuit — with type of assignment 2 required with type of assignment 2 required 9 for short-circuit protection of the main circuit — with type of assignment 2 required 9 for short-circuit protection of the auxiliary switch required 1 fastening method a side-by-side mounting 45 mm width 45 mm depth 73 mm required spacing with side-by-side mounting | • at 110 V rated value | 1 A | |
| e at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor e at 480 V rated value e at 600 V rated value 11 A yielded mechanical performance [hp] e for single-phase AC motor — at 110/120 V rated value 2 hp for 3-phase AC motor — at 200/230 V rated value 2 hp e for 3-phase AC motor — at 200/230 V rated value 9 to 7-sphase AC motor — at 460/480 V rated value 9 to 9 hp — at 220/230 V rated value 9 to 9 hp — at 460/480 V rated value 9 to 9 hp — at 575/600 V rated value 10 hp Contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link e for short-circuit protection of the main circuit — with type of coordination 1 required with type of cosignment 2 required for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required so for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch e for short-circuit protection of the auxiliary switch e for short-circuit protection of the auxiliary switch so for short-circuit protection of the auxiliary switch e for short-circuit protection of the auxiliary switch so for short-cir | • at 125 V rated value | 0.9 A | |
| contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor | at 220 V rated value | 0.3 A | |
| full-load current (FLA) for 3-phase AC motor • at 480 V rated value 11 A yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 2 hp • for 3-phase AC motor — at 2200/230 V rated value 2 hp • for 3-phase AC motor — at 2200/230 V rated value 3 hp — at 2200/230 V rated value 5 hp — at 460/480 V rated value 10 hp — at 575/600 V rated value 10 hp — at 575/600 V rated value 10 hp contact rating of auxiliary 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 GG: 56A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k/g) • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position */-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting Yes height 73 mm required spacing • with side-by-side mounting • with side-by-side mounting | at 600 V rated value | 0.1 A | |
| full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • to for single-phase AC motor — at 110/120 V rated value • for 3-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value • at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 60/480 V rated value — at 60/400 V rated value — with type of coordination 1 required — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position #/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting rail according to DIN EN 60715 • side-by-side mounting • with side-by-side mounting | contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) | |
| at 480 V rated value 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 200/208 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 4575/600 V rated value — at 575/600 V rated value — at 575/600 V rated value contact rating of auxiliary 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 — with type of assignment 2 required for short-circuit protection of the auxiliary switch required socrea and snap-on mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting yes height with side-by-side mounting | UL/CSA ratings | | |
| * at 600 V rated value yielded mechanical performance [hp] * for single-phase AC motor | full-load current (FLA) for 3-phase AC motor | | |
| yielded mechanical performance [hp] • for single-phase AC motor — at 1101/20 V rated value — at 230 V rated value 2 hp • for 3-phase AC motor — at 220/230 V rated value 3 hp — at 250/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — with type of coordination 1 required — with type of coordination 1 required — with type of assignment 2 required 9G: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80k/gG: 10 A (500 V, 1 kA) gG: 10 A (500 V, 1 kA) required fastening method • side-by-side mounting • with side-by-side mounting | at 480 V rated value | 14 A | |
| • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value 2 hp • for 3-phase AC motor — at 220/228 V rated value 3 hp — at 220/230 V rated value 5 hp — at 460/480 V rated value — at 575/600 V rated value 10 hp contact rating of auxiliary 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method screw and snap-on mounting noto 35 mm standard mounting rail according to DIN EN 60715 vesible by-side mounting • with side-by-side mounting | at 600 V rated value | 11 A | |
| - at 110/120 V rated value | yielded mechanical performance [hp] | | |
| - at 230 V rated value • for 3-phase AC motor - at 200/208 V rated value - at 220/230 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 575/600 V rated value - at 575/600 V rated value contact rating of auxiliary 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 - with type of assignment 2 required • for short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required of side-by-side mounting • side-by-side mounting • with side-by-side mounting | for single-phase AC motor | | |
| for 3-phase AC motor — at 200/208 V rated value | — at 110/120 V rated value | 1 hp | |
| for 3-phase AC motor — at 200/208 V rated value | — at 230 V rated value | 2 hp | |
| - at 220/230 V rated value 5 hp - at 460/480 V rated value 10 hp - at 575/600 V rated value 10 hp contact rating of auxiliary contacts according to UL A600 / Q600 Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA) • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting • with side-by-side mounting • with side-by-side mounting • with side-by-side mounting | • for 3-phase AC motor | | |
| - at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 600 V rated | — at 200/208 V rated value | 3 hp | |
| - at 460/480 V rated value - at 575/600 V rated value 10 hp contact rating of auxiliary 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 - with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position #/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 ves height width 45 mm depth required spacing • with side-by-side mounting with side-by-side mounting #/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting rail according to DIN EN 60715 73 mm | — at 220/230 V rated value | | |
| - at 575/600 V rated value contact rating of auxiliary 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method • side-by-side mounting • with side-by-side mounting | — at 460/480 V rated value | | |
| contact rating of auxiliary 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required of the fuse link • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting height width depth required spacing • with side-by-side mounting • with side-by-side mounting | — at 575/600 V rated value | · | |
| Short-circuit protection design of the fuse link | contact rating of auxiliary contacts according to UL | | |
| design of the fuse link | | | |
| • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position ### Fastening method • side-by-side mounting height width depth for short-circuit protection of the auxiliary switch required gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA) gG: 10 A (500 V, 1 kA) ### Fastening position ### Fastening method ### Fasten | | | |
| - with type of coordination 1 required - with type of assignment 2 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch 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 gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) - for short-circuit protection of the auxi | | | |
| — with type of assignment 2 required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method of side-by-side mounting height width depth required spacing with side-by-side mounting with side-by-side mounting with side-by-side mounting with side-by-side mounting for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) ### Space of the sax of the s | · | gG: 50A (690V.100kA), aM: 25A (690V 100kA), BS88: 50A (415V 80kA) | |
| • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method • side-by-side mounting • side-by-side mounting height width depth required spacing • with side-by-side mounting • with side-by-side mounting | | | |
| Installation/ mounting/ dimensions mounting position | | | |
| mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting Yes height 58 mm width 45 mm depth 73 mm required spacing • with side-by-side mounting | | 30(000 +, + 10) | |
| mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting Yes height 58 mm width 45 mm depth 73 mm required spacing • with side-by-side mounting | Installation/ mounting/ dimensions | | |
| fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 ◆ side-by-side mounting Yes height 58 mm width 45 mm depth 73 mm required spacing with side-by-side mounting | - | | |
| according to DIN EN 60715 ✓ side-by-side mounting height 58 mm width 45 mm depth required spacing ✓ with side-by-side mounting | | | |
| height 58 mm width 45 mm depth 73 mm required spacing | | according to DIN EN 60715 | |
| width45 mmdepth73 mmrequired spacingwith side-by-side mounting | | | |
| depth 73 mm required spacing • with side-by-side mounting | | 58 mm | |
| required spacing • with side-by-side mounting | width | 45 mm | |
| with side-by-side mounting | depth | 73 mm | |
| | required spacing | | |
| forwards 10 mm | with side-by-side mounting | | |
| — IOI Wallus | — forwards | 10 mm | |



| — upwards | 10 mm | |
|--|--|-----|
| — downwards | 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 | |
| — upwards | 10 mm | |
| — downwards | 10 mm | |
| — at the side | 6 mm | |
| Connections/ Terminals | | |
| type of electrical connection | | |
| for main current circuit | screw-type terminals | |
| for auxiliary and control circuit | screw-type terminals | |
| at contactor for auxiliary contacts | Screw-type terminals | |
| of magnet coil | Screw-type terminals | |
| type of connectable conductor cross-sections | | |
| for main contacts | | |
| — solid | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² | |
| — solid or stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² | |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) | |
| at AWG cables for main contacts | 2x (20 16), 2x (18 14), 2x 12 | |
| connectable conductor cross-section for main contacts | | |
| • solid | 0.5 4 mm² | |
| stranded | 0.5 4 mm² | |
| finely stranded with core end processing | 0.5 2.5 mm² | |
| connectable conductor cross-section for auxiliary contacts | | |
| solid or stranded | 0.5 4 mm² | |
| finely stranded with core end processing | 0.5 2.5 mm ² | |
| type of connectable conductor cross-sections | | |
| for auxiliary contacts | | |
| — solid or stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² | |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) | |
| at AWG cables for auxiliary contacts | 2x (20 16), 2x (18 14), 2x 12 | |
| AWG number as coded connectable conductor cross section for main contacts | 20 12 | |
| AWG number as coded connectable conductor cross section for auxiliary contacts | 20 12 | |
| Safety related data | | |
| B10 value with high demand rate acc. to SN 31920 | 1 000 000 | |
| proportion of dangerous failures | | |
| with low demand rate acc. to SN 31920 | 40 % | |
| with high demand rate acc. to SN 31920 | 73 % | |
| failure rate [FIT] with low demand rate acc. to SN 31920 | 100 FIT | |
| product function | | |
| mirror contact acc. to IEC 60947-4-1 | Yes | |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y | |
| protection class IP on the front acc. to IEC 60529 | IP20 | |
| touch protection on the front acc. to IEC 60529 | finger-safe, for vertical contact from the front | |
| suitability for use safety-related switching OFF | Yes | |
| Certificates/ approvals | | |
| General Product Approval | | EMC |
| | | |













EMC

Declaration of Conformity

Test Certificates

Marine / Shipping





Miscellaneous

Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping













other

Confirmation



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=3RT2018-1BB42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1BB42

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1BB42

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1BB42&lang=en

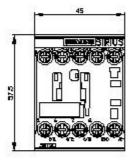
Characteristic: Tripping characteristics, I2t, Let-through current

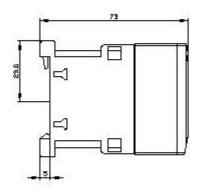
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1BB42/char

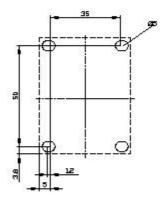
Further characteristics (e.g. electrical endurance, switching frequency)

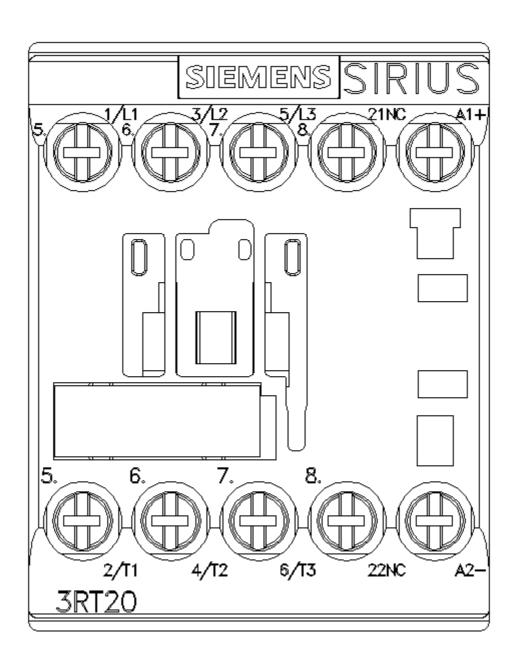
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1BB42&objecttype=14&gridview=view1

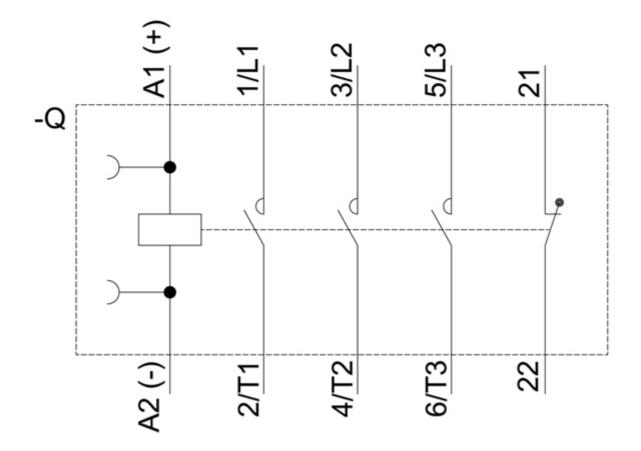












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