SIEMENS

Data sheet

3RT2015-1AF02



Power contactor, AC-3 7 A, 3 kW / 400 V 1 NC, 110 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal

| 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 | 1.2 W |
| • per pole | 0.4 W |
| power loss [W] for rated value of the current without load current share typical | 4.2 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 AC | 6,7g / 5 ms, 4,2g / 10 ms |
| shock resistance with sine pulse | |
| • at AC | 10,5g / 5 ms, 6,6g / 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 |
| Substance Prohibitance (Date) | 01.10.2009 00:00:00 |
| 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 |
| 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 | 18 A |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 18 A |
| — up to 690 V at ambient temperature 60 $^\circ\mathrm{C}$ rated value | 16 A |
| • at AC-3 | |
| — at 400 V rated value | 7 A |
| — at 500 V rated value | 6 A |
| — at 690 V rated value | 4.9 A |
| • at AC-4 at 400 V rated value | 6.5 A |
| at AC-5a up to 690 V rated value | 15.8 A |
| at AC-5b up to 400 V rated value | 5.8 A |
| • at AC-6a | |
| up to 230 V for current peak value n=20 rated value | 4 A |
| up to 400 V for current peak value n=20 rated value | 4 A |
| — up to 500 V for current peak value n=20 rated value | 3.8 A |
| — up to 690 V for current peak value n=20 rated value | 3.6 A |
| • at AC-6a | 274 |
| — up to 230 V for current peak value n=30 rated value | 2.7 A |
| — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated | 2.7 A 2.5 A |
| value — up to 690 V for current peak value n=30 rated | 2.4 A |
| value | |
| minimum cross-section in main circuit at maximum AC-1 rated value | 2.5 mm ² |
| operational current for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 2.6 A |
| at 690 V rated value | 1.8 A |
| operational current | |
| at 1 current path at DC-1 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 1.5 A |
| — at 220 V rated value | 0.6 A |
| — at 440 V rated value | 0.42 A |
| — at 600 V rated value | 0.42 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 8.4 A |
| — at 220 V rated value | 1.2 A |
| — at 440 V rated value | 0.6 A |
| — at 600 V rated value | 0.5 A |
| • with 3 current paths in series at DC-1 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 15 A |
| | 0.9 A |
| — at 440 V rated value | 0.7.1 |
| — at 600 V rated value | 0.7 A |
| — at 600 V rated value operational current | 0.7 A |
| — at 600 V rated value | 0.7 A15 A |

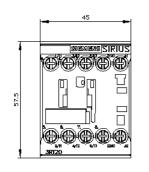
| — at 110 V rated value | 0.1 A |
|--------------------------------------------------------------------------------|-----------------------------------------------------------|
| with 2 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 0.25 A |
| with 3 current paths in series at DC-3 at DC-5 | |
| — at 24 V rated value | 15 A |
| — at 110 V rated value | 15 A |
| — at 220 V rated value | 1.2 A |
| — at 440 V rated value | 0.14 A |
| — at 600 V rated value | 0.14 A |
| operating power | |
| • at AC-3 | |
| — at 230 V rated value | 1.5 kW |
| — at 400 V rated value | 3 kW |
| — at 500 V rated value | 3 kW |
| — at 690 V rated value | 4 kW |
| operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 1.15 kW |
| at 690 V rated value | 1.15 kW |
| operating apparent power at AC-6a | |
| • up to 230 V for current peak value n=20 rated value | 1.5 kV·A |
| • up to 400 V for current peak value n=20 rated value | 2.7 kV·A |
| • up to 500 V for current peak value n=20 rated value | 3.3 kV·A |
| • up to 690 V for current peak value n=20 rated value | 4.3 kV·A |
| operating apparent power at AC-6a | |
| • up to 230 V for current peak value n=30 rated value | 1 kV·A |
| • up to 400 V for current peak value n=30 rated value | 1.8 kV·A |
| • up to 500 V for current peak value n=30 rated value | 2.2 kV·A |
| • up to 690 V for current peak value n=30 rated value | 2.9 kV·A |
| short-time withstand current in cold operating state | |
| up to 40 °C | |
| limited to 1 s switching at zero current maximum | 120 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 5 s switching at zero current maximum | 86 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 10 s switching at zero current maximum | 67 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 30 s switching at zero current maximum | 52 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 60 s switching at zero current maximum | 43 A; Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency | |
| • at AC | 10 000 1/h |
| operating frequency | |
| • at AC-1 maximum | 1 000 1/h |
| • at AC-2 maximum | 750 1/h |
| • at AC-3 maximum | 750 1/h |
| • at AC-4 maximum | 250 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC |
| control supply voltage at AC | |
| • at 50 Hz rated value | 110 V |
| • at 60 Hz rated value | 110 V |
| operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 1.1 |
| • at 60 Hz | 0.85 1.1 |
| apparent pick-up power of magnet coil at AC | |
| • at 50 Hz | 27 V·A |
| • at 60 Hz | 24.3 V·A |
| | |
| inductive power factor with closing power of the coil | |
| | 0.8 |
| inductive power factor with closing power of the coil | 0.8 0.75 |

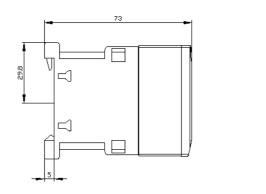
| • at 50 Hz 42 VA • at 60 Hz 33 VA inductive power factor with the holding power of the coll 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at 60 Hz 0.25 • at AC 9 35 ms opening delay 0.15 ms • at AC 7 13 ms arcing dime 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 10 15 ms number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-14 0 40 • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-2 6 A • at 600 V rated value 6 A • at 600 V rated value 1 A operational current at DC-13 0 A • at 600 V rated value 1 A operational current at DC-13 0 A • at 600 V rated value 1 A operational current at DC-13 0 A | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------|
| • et 60 Hz 3.3 V/A Inductive power factor with the holding power of the coll 0.25 • et 60 Hz 0.25 closing delay 0.25 • et AC 9 35 ms opening delay 0.15 ms • et AC 7 13 ms arcing time 10 15 ms control version of the switch operating machanism Standard A1 - A2 Auxiliary circuit 10 A operational current at AC-15 1 • at 200 V rated value 10 A operational current at AC-15 10 A • at 400 V rated value 2 A • at 400 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 1 A operational current at DC-12 1 A • at 600 V rated value 3 A • at 600 V rated value 1 A operational current at DC-13 3 A • at 60 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A operational current at DC-13 3 A • at 10 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at 22 V rated value 1 A • at | apparent holding power of magnet coil at AC | |
| inductive power factor with the holding power of the coil 0.25 • at 60 Hz 0.25 • closing delay 0.25 • at AC 9 35 ms opening delay 0.15 ms • at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism 10 15 ms Axiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10.A operational current at AC-15 1 • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 6A • at 10 V rated value 1A • at 220 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 600 V rated value 1A • at 110 V rated value 1A • at 220 V rated value 1A • at 220 V rated value 1A • at 60 V rated value 1A • at 110 V rated value 1A • at 220 V rated value 1A • at 220 V rated value 1A • at 220 V rated | | |
| coli 0.25 • at 80 Hz 0.25 closing delay 935 ms • at AC 935 ms • opening delay 1015 ms • at AC 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Axtiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 10 A operational current at AC-12 maximum 10 A • at 200 V rated value 3 A • at 300 V rated value 1 A operational current at DC-12 0 A • at 400 V rated value 1 A operational current at DC-12 0 A • at 400 V rated value 0 A • at 40 V rated value 0 A • at 22 V rated value 0 A • at 40 V rated val | | 3.3 V·A |
| • at 80 Hz 0.25 closing delay 935 ms opening delay 713 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Availary circuit 1 number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A • at 200 V rated value 3 A • at 300 V rated value 1 A operational current at DC-12 10 A • at 400 V rated value 1 A operational current at DC-12 1 A • at 400 V rated value 1 A operational current at DC-12 10 A • at 40 V rated value 1 A operational current at DC-12 1 A • at 40 V rated value 1 A • at 40 V rated value 2 A • at 40 V rated value 2 A • at 410 V rated value 0 A • at 22 V rated value 0 A • at 42 V rated value 0 A • at 43 V rated value 0 A • at 44 V rated value 0 A • at 450 V rated value 0 A • at 4 | | |
| closing delay 9 35 ms opening delay 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Askilary circuit 1 number of NC contacts for auxillary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 200 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 • • at 24 V rated value 10 A • at 600 V rated value 6 A • at 10 V rated value 6 A • at 20 V rated value 1 A operational current at DC-12 • • at 24 V rated value 10 A • at 24 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A | • at 50 Hz | 0.25 |
| • eit AC 9 35 ms opening delay - • eit AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Axillary circuit 1 number of NC contacts for auxiliary contacts 1 operational current at AC-12 maximum 10 A operational current at DC-12 10 A • at 600 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 10 A • at 82 V rated value 10 A • at 60 V rated value 10 A • at 22 V rated value 10 A • at 60 V rated value 10 A • at 110 V rated value 10 A • at 12 V rated value 10 A <td>• at 60 Hz</td> <td>0.25</td> | • at 60 Hz | 0.25 |
| opening delay 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxilary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 • at 230 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at AC-12 1 A operational current at DC-12 2 A • at 600 V rated value 10 A • at 600 V rated value 6 A • at 10 V rated value 10 A • at 22 V rated value 10 A • at 24 V rated value 2 A • at 25 V rated value 10 A • at 260 V rated value 0.15 A operational current at DC-13 0.10 A • at 260 V rated value 2 A • at 60 V rated value 0.3 A • at 22 V rated value 0.3 A • at 22 V rated value | closing delay | |
| • at AC 7 13 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 operational current at AC-12 maximum 10 A operational current at AC-13 maximum 10 A operational current at AC-12 maximum 10 A • at 230 V rated value 10 A • at 500 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 1 • at 24 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 6 A • at 25 V rated value 10 A • at 25 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 10 A • at 600 V rated value 2 A • at 600 V rated value < | • at AC | 9 35 ms |
| arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts 1 instantaneous contact 10.A operational current at AC-12 maximum 10 A operational current at AC-15 10 A • at 200 V rated value 3 A • at 500 V rated value 1 A operational current at DC-12 0 A • at 80 V vrated value 6 A • at 80 V rated value 10 A • at 80 V rated value 1 A • at 80 V rated value 1 A • at 20 V rated value 2 A • at 20 V rated value 10 A • at 20 V rated value 1 A • at 20 V rated value 1 A • at 20 V rated value 1 A | opening delay | |
| control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit Immber of NC contacts for auxiliary contacts 1 instantaneous contact 1 10 A operational current at AC-12 maximum 10 A 10 A operational current at AC-15 10 A 10 A • at 230 V rated value 10 A 3A • at 400 V rated value 1 A 0 operational current at DC-12 10 A 3A • at 500 V rated value 1 A 0 operational current at DC-12 10 A 3A • at 24 V rated value 6 A 3A • at 44 V rated value 6 A 3A • at 25 V rated value 1 A 0 • at 25 V rated value 2 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 A 3A • at 20 V rated value 1 | • at AC | 7 13 ms |
| Auxillary circuit number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-15 1 eit 230 V rated value 3 A eit 600 V rated value 1 A operational current at DC-12 1 A eit 600 V rated value 6 A eit 60 V rated value 6 A eit 10 V rated value 6 A eit 220 V rated value 1 A operational current at DC-12 0.15 A eit 220 V rated value 1 A eit 220 V rated value 1 A eit 220 V rated value 1 A eit 200 V rated value 2 A eit 200 V rated value 1 A eit 200 V rated value 1 A eit 200 V rated value 1 A eit 600 V rated value 10 A eit 300 V rated value 1 A eit 600 | arcing time | 10 15 ms |
| number of NC contacts for auxiliary contacts 1 instantaneous contact 0perational current at AC-12 maximum operational current at AC-15 10 A • at 230 V rated value 3 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 10 A • at 600 V rated value 1 A operational current at DC-12 0 A • at 12 V rated value 10 A • at 10 V rated value 6 A • at 10 V rated value 10 A • at 24 V rated value 10 A • at 10 V rated value 10 A • at 24 V rated value 10 A • at 10 V rated value 10 A • at 25 V rated value 10 A • at 20 V rated value 2 A • at 600 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 2 A • at 60 V rated value 2 A • at 20 V rated value 0.16 A • at 20 V rated value 0.18 A • at 200 V rated value 0.1 A concater reliability of auxilia | control version of the switch operating mechanism | Standard A1 - A2 |
| instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15 • at 230 V rated value • at 300 V rated value • at 600 V rated value • at 600 V rated value • at 44 V rated value • at 48 V rated value • at 100 V rated value • at 24 V rated value • at 100 V rated value • at 25 V rated value • at 260 V rated value • at 260 V rated value • at 270 V rated value • at 280 V rated value • at 200 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 200 V rated value • at 200 V rated value • at 600 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value | Auxiliary circuit | |
| operational current at AC-15• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 Aoperational current at DC-12• 1 A• at 24 V rated value6 A• at 48 V rated value6 A• at 45 V rated value6 A• at 24 V rated value1 A• at 24 V rated value6 A• at 25 V rated value1 A• at 20 V rated value1 A• at 220 V rated value2 A• at 220 V rated value1 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value0.15 Aoperational current at DC-1310 A• at 25 V rated value1 A• at 25 V rated value2 A• at 60 V rated value1 A• at 25 V rated value0.9 A• at 26 V rated value0.14 A• at 270 V rated value0.14 A• at 280 V rated value0.14 A• at 480 V rated value0.14 A• at 480 V rated value0.14 A• at 480 V rated value0.15 A• at 480 V rated value0.25 hp• at 280 V rated value0.75 hp | | 1 |
| • at 230 V rated value 10 A • at 400 V rated value 3 A • at 600 V rated value 2 A • at 600 V rated value 1 A operational current at DC-12 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 6 A • at 10 V rated value 6 A • at 25 V rated value 1 A • operational current at DC-12 0 A • at 60 V rated value 6 A • at 60 V rated value 6 A • at 25 V rated value 1 A • at 26 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 10 A • at 24 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.15 A • at 220 V rated value 0.3 A • at 220 V rated value 0.14 A • at 220 V rated value 0.14 A • at 200 V rated value 0.14 A • at 600 V rated value 0.14 A • at 480 V rated value 6.1 A • yieided mechanical perfor | operational current at AC-12 maximum | 10 A |
| • at 400 V rated value 3 A • at 690 V rated value 2 A • at 690 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 6 A • at 48 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 6 A • at 10 V rated value 2 A • at 20 V rated value 1 A • at 20 V rated value 2 A • at 20 V rated value 1 A • at 20 V rated value 10 A • at 48 V rated value 2 A • at 10 V rated value 2 A • at 10 V rated value 0.9 A • at 20 V rated value 0.1 A • at 20 V rated value 0.1 A • at 600 V rated value 0.1 A • at 480 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A yielded mechanical perfor | operational current at AC-15 | |
| • at 500 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 10 V rated value 6 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 22 V rated value 2 A • at 22 V rated value 1 A • at 22 V rated value 2 A • at 22 V rated value 0.15 A operational current at DC-13 0 A • at 40 V rated value 10 A • at 40 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 6.1 A yielded mechanical performance [hp] 6.1 A • at 600 V rated value 6.1 A out rated value 0.25 hp • at 320 V rated value | • at 230 V rated value | 10 A |
| • at 680 V rated value 1 A operational current at DC-12 10 A • at 24 V rated value 6 A • at 60 V rated value 6 A • at 60 V rated value 3 A • at 10 V rated value 3 A • at 10 V rated value 3 A • at 220 V rated value 0.15 A operational current at DC-13 0.15 A • at 60 V rated value 0.15 A operational current at DC-13 0.4 • at 60 V rated value 0.16 A • at 60 V rated value 0.16 A • at 60 V rated value 0.15 A operational current at DC-13 0.15 A • at 60 V rated value 0.16 A • at 60 V rated value 0.16 A • at 60 V rated value 0.1 A • at 22 V rated value 0.3 A • at 800 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 0.25 hp | • at 400 V rated value | 3 A |
| operational current at DC-12• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 200 V rated value0.15 Aoperational current at DC-1310 A• at 48 V rated value2 A• at 24 V rated value0.15 Aoperational current at DC-130.16 A• at 24 V rated value2 A• at 24 V rated value2 A• at 25 V rated value2 A• at 26 V rated value0.9 A• at 25 V rated value0.3 A• at 220 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)ULCSA ratings1full-load current (FLA) for 3-phase AC motor4.8 A• at 480 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 110/120 V rated value0.75 hp• at 200/208 V rated value0.75 hp | • at 500 V rated value | 2 A |
| • at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value2 A• at 24 V rated value2 A• at 600 V rated value2 A• at 110 V rated value0.9 A• at 125 V rated value0.3 A• at 220 V rated value0.14 A• at 600 V rated value0.14 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings4.8 A• at 480 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor0.75 hp | • at 690 V rated value | 1 A |
| eat 48 V rated value 6 A • at 60 V rated value 6 A • at 110 V rated value 3 A • at 220 V rated value 2 A • at 220 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 0.15 A operational current at DC-13 0 • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 24 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 0.15 A operational current at DC-13 0 • at 24 V rated value 2 A • at 60 V rated value 2 A • at 10 V rated value 0.9 A • at 220 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A • for single-phase AC motor 0.25 hp - at 200 V rated value 0.25 hp - at 200 | operational current at DC-12 | |
| e 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 0 • at 24 V rated value 10 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 0.9 A • at 220 V rated value 0.9 A • at 200 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor - at 100/120 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - at 200/208 V rated value | • at 24 V rated value | 10 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 10 A • at 42 V rated value 2 A • at 43 V rated value 2 A • at 44 V rated value 2 A • at 45 V rated value 2 A • at 60 V rated value 2 A • at 110 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 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor • at 101/120 V rated value 0.25 hp • at 230 V rated value 0.75 hp | at 48 V rated value | 6 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 10 A • at 24 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 0.9 A • at 125 V rated value 0.9 A • at 20 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings 1 full-load current (FLA) for 3-phase AC motor 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • • for single-phase AC motor - - at 110/120 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - - at 200/208 V rated value 1.5 hp | • at 60 V rated value | 6 A |
| at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 480 V rated value bielded mechanical performance [hp] for single-phase AC motor at 230 V rated value at 5 hp | • at 110 V rated value | 3 A |
| • at 600 V rated value 0.15 A operational current at DC-13 10 A • at 24 V rated value 2 A • at 60 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 200 V rated value 0.1 A • at 600 V rated value 0.1 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 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] • for single-phase AC motor • at 200 V rated value 0.25 hp • at 230 V rated value 0.75 hp • for 3-phase AC motor - at 230 V rated value | • at 125 V rated value | 2 A |
| operational current at DC-1310 A• at 24 V rated value2 A• at 48 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• contact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 600 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor- at 110/120 V rated value0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor- at 200/208 V rated value1.5 hp | • at 220 V rated value | 1 A |
| • at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value6.1 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp | • at 600 V rated value | 0.15 A |
| at 48 V rated value at 60 V rated value at 10 V rated value at 110 V rated value at 125 V rated value 0.9 A at 220 V rated value 0.3 A at 600 V rated value 0.1 A UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 6.1 A at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200 V rated value 1.5 hp | operational current at DC-13 | |
| at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 600 V rated value 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 A at 600 V rated value A UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value A A at 600 V rated value A e at 600 V rated value A A bigle-phase AC motor at 110/120 V rated value A A A A A A A for single-phase AC motor at 230 V rated value A A A A A A | at 24 V rated value | 10 A |
| • at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp- at 110/120 V rated value0.75 hp• for 3-phase AC motor0.75 hp- at 230 V rated value1.5 hp | at 48 V rated value | 2 A |
| at 125 V rated value at 220 V rated value 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 4.8 A at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp | • at 60 V rated value | 2 A |
| • at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]0.25 hp- at 110/120 V rated value0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp | at 110 V rated value | 1 A |
| • at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor4.8 A• at 480 V rated value6.1 A• at 600 V rated value0.25 hp• for single-phase AC motor0.25 hp- at 230 V rated value0.75 hp• for 3-phase AC motor1.5 hp | at 125 V rated value | 0.9 A |
| contact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor0.25 hp- at 110/120 V rated value0.75 hp• for 3-phase AC motor1.5 hp | • at 220 V rated value | 0.3 A |
| UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 4.8 A • at 600 V rated value 6.1 A yielded mechanical performance [hp] 6.1 A • for single-phase AC motor - at 110/120 V rated value - at 230 V rated value 0.25 hp - at 230 V rated value 0.75 hp • for 3-phase AC motor - at 200/208 V rated value | • at 600 V rated value | 0.1 A |
| full-load current (FLA) for 3-phase AC motor• at 480 V rated value4.8 A• at 600 V rated value6.1 Ayielded mechanical performance [hp]• for single-phase AC motor— at 110/120 V rated value0.25 hp— at 230 V rated value0.75 hp• for 3-phase AC motor— at 200/208 V rated value1.5 hp | 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 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 5 hp | UL/CSA ratings | |
| at 480 V rated value at 600 V rated value 6.1 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 5 hp | full-load current (FLA) for 3-phase AC motor | |
| yielded mechanical performance [hp]• for single-phase AC motor— at 110/120 V rated value0.25 hp— at 230 V rated value0.75 hp• for 3-phase AC motor— at 200/208 V rated value1.5 hp | • at 480 V rated value | 4.8 A |
| for single-phase AC motor at 110/120 V rated value at 230 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp | • at 600 V rated value | 6.1 A |
| for single-phase AC motor at 110/120 V rated value at 230 V rated value 0.25 hp at 230 V rated value 0.75 hp for 3-phase AC motor at 200/208 V rated value 1.5 hp | yielded mechanical performance [hp] | |
| at 230 V rated value for 3-phase AC motor at 200/208 V rated value 0.75 hp 1.5 hp | | |
| for 3-phase AC motor — at 200/208 V rated value 1.5 hp | | 0.25 hp |
| for 3-phase AC motor — at 200/208 V rated value 1.5 hp | | |
| - at 200/208 V rated value 1.5 hp | for 3-phase AC motor | |
| | | 1.5 hp |
| - at 220/230 V rated value 2 hp | | 2 hp |
| — at 460/480 V rated value 3 hp | | |
| — at 575/600 V rated value 5 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 | • | |
| | | gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) |
| - with type of assignment 2 required gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA) | | gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, |

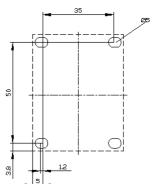
\bullet for short-circuit protection of the auxiliary switch required

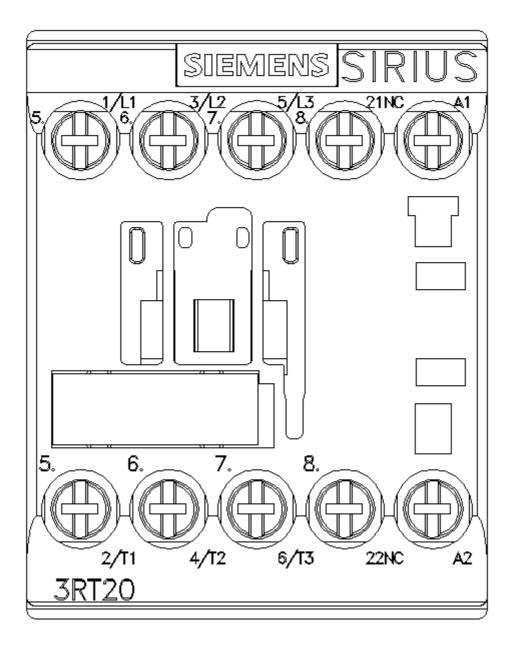
| nstallation/ mounting/ dimensions | |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| mounting position | +/-180° rotation possible on vertical 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 |
| side-by-side mounting | Yes |
| height | 58 mm |
| width | 45 mm |
| depth | 73 mm |
| required spacing | |
| with side-by-side mounting | |
| — 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 mm² |
| 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 |
| for auxiliary contacts | 20 12 |
| Safety related data | |
| product function mirror contact acc. to IEC 60947-4-1 | Yes |

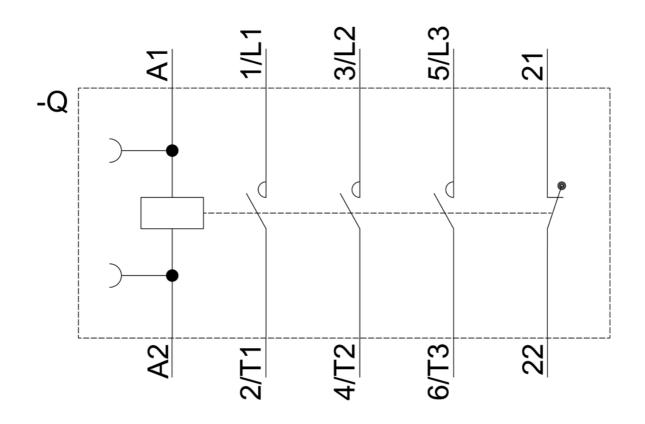
| B10 value with high demand rate acc. to SN 31920 1 000 000 proportion of dangerous failures 40 % • with low demand rate acc. to SN 31920 40 % • with high demand rate acc. to SN 31920 73 % failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to 20 y 20 y IEC 61508 IP20 touch protection 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 service if parts and the front service | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 73 % failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to 20 y IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 suitability for use safety-related switching OFF Yes | |
| with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to IEC 61508 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 | |
| failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT 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 | |
| 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 | |
| IEC 61508 IEC 61508 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 | |
| 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 | |
| suitability for use • safety-related switching OFF Yes | |
| safety-related switching OFF Yes | |
| | |
| Certificates/ approvals | |
| | |
| General Product Approval EMC | |
| | |
| Functional Safety/Safety of Machinery Declaration of Conformity Test Certificates Marine / Shipp | oing |
| Type Examination UK Declaration of Type Test Certific- Special Test Certific- ate Certificate Conformity EG-Konf. Type Test Certific- ate ate | |
| Marine / Shipping | |
| URS PRS RINA RINA RINA | |
| other | |
| Confirmation 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=3RT2015-1AF02 | |
| Cax online generator | |
| http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-1AF02 | |
| Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-1AF02 | |
| | |
| Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) | |
| Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en | |
| http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en Characteristic: Tripping characteristics, I ² t, Let-through current | |
| http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1AF02⟨=en | |











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