SIEMENS

Data sheet 3RT2028-2NB30



Power contactor, AC-3 38 A, 18.5 kW / 400 V 1 NO + 1 NC AC (50 - 60 Hz) / DC 21-28 V AC / DC, 3-pole Size S0, Spring-type terminals

| product type designation product type designation general technical data size of contactor product extension • function module for communication • auxiliary switch • auxiliary switch • at AC in hot operating state per pole • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary script with degree of pollution 3 rated value • of with circuit value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit value • of with circuit with degree of pollution 3 rated value • of with circuit with degree of pollution 3 rated value • of with circuit value • of with circ | product brand name | SIRIUS |
|---|--|----------------------------|
| Size of contactor product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary switch block typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient emperature • during operation | product designation | Power contactor |
| size of contactor product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of the contactor with sine pulse • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor | product type designation | 3RT2 |
| product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit tated value • of auxiliary circuit rated value • of main circuit rated value • of main circuit rated value • of main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance • at AC • at DC shock resistance • at AC • a | General technical data | |
| • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state | size of contactor | S0 |
| auxiliary switch power loss [W] for rated value of the current at AC in hot operating state per pole at AC in hot operating state per pole without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical reference code according to IEC 81346-2 Quubent conditions installation altitude at height above sea level maximum output for auxiliary circuit rated value output for auxiliary circuit rated value output for auxiliary switch block typical reference code according to IEC 81346-2 Quubent conditions installation altitude at height above sea level maximum output for auxiliary switch block to for auxiliary switch block | product extension | |
| power loss [W] for rated value of the current at AC in hot operating state at AC in hot operating state per pole without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value and main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC | function module for communication | No |
| at AC in hot operating state 9.6 W at AC in hot operating state per pole without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of at AC of contactor with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient temperature of during operation 9.6 W 3.2 W 3.9 W 690 V 690 V 690 V 640 V 680 V 68V 68V 68V 68V 68V 68V 68V 6 | auxiliary switch | Yes |
| at AC in hot operating state per pole without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary switch sine pulse of at AC of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added dectronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Question auxiliary switch block typical reference code according to IEC 81346-2 Question auxiliary switch block typical reference code according to IEC 81346-2 Question auxiliary switch block typical reference code according to IEC 81346-2 Question auxiliary switch block typical reference code according to IEC 81346-2 Question auxiliary switch block typical of the conflations installation altitude at height above sea level maximum ambient temperature of during operation 3.2 W 400 V 6kV 6kV 6kV 8.3g / 5 ms, 8,3g / 10 ms 10 000 000 10 000 000 10 000 000 10 000 00 | power loss [W] for rated value of the current | |
| insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of the contactor with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the cont | at AC in hot operating state | 9.6 W |
| insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC shock resis | at AC in hot operating state per pole | 3.2 W |
| of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value value surge voltage resistance of main circuit rated value of auxiliary circuit rated value aximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of at DC of at DC of at DC of at DC of contactor with sine pulse of the Contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the Contactor with added auxiliary switch block typical of the | without load current share typical | 2 W |
| of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of the contacts according to IEC 81346-2 Substance Prohibitance (Date) of contactor (Date) installation altitude at height above sea level maximum ambient temperature of during operation of safe V of auxiliary switch blo ck typical of by V of contactor with added event circuit and conditions installation altitude at height above sea level maximum ambient temperature of during operation of safe V of main circuit rated value of kV of w 400 V 400 V 400 V 400 V 4 | insulation voltage | |
| value surge voltage resistance | of main circuit with degree of pollution 3 rated value | 690 V |
| of main circuit rated value of auxiliary circuit rated value examinum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse o at AC o at DC shock resistance with sine pulse o at AC o at DC shock resistance with sine pulse o at AC o at DC mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical | , , | 690 V |
| of auxiliary circuit rated value maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse oat AC oat DC shock resistance with sine pulse oat AC oat DC at DC of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 6 kV 400 V 4 | surge voltage resistance | |
| maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC at DC shock resistance with sine pulse • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC | of main circuit rated value | 6 kV |
| shock resistance at rectangular impulse • at AC • at DC • at AC • at DC • at AC • at DC • at AC • at DC • at AC • at DC • at AC • at DC • at AC • at DC • at AC • at DC • of contactor life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the con | of auxiliary circuit rated value | 6 kV |
| at AC at DC 10g / 5 ms, 7,5g / 10 ms shock resistance with sine pulse at AC at DC 13,5g / 5 ms, 8,3g / 10 ms at DC 15g / 5 ms, 10g / 10 ms of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Question of the conditions installation altitude at height above sea level maximum ambient temperature during operation 48,3g / 5 ms, 5,3g / 10 ms 10 000 000 10 000 | | 400 V |
| at DC shock resistance with sine pulse at AC at DC at | shock resistance at rectangular impulse | |
| shock resistance with sine pulse at AC at DC 13,5g / 5 ms, 8,3g / 10 ms mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 13,5g / 5 ms, 8,3g / 10 ms 10,000 000 10,0 | • at AC | 8,3g / 5 ms, 5,3g / 10 ms |
| at AC at DC 15g / 5 ms, 8,3g / 10 ms mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation -25 +60 °C | • at DC | 10g / 5 ms, 7,5g / 10 ms |
| at DC mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 15g / 5 ms, 10g / 10 ms 10 000 000 5 000 000 10 000 000 10 000 000 10 000 00 | shock resistance with sine pulse | |
| mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 10 000 000 10 000 | • at AC | 13,5g / 5 ms, 8,3g / 10 ms |
| of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation 10 000 000 2 000 000 | • at DC | 15g / 5 ms, 10g / 10 ms |
| of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 5 000 000 10 000 000 10 000 000 10 000 00 | mechanical service life (switching cycles) | |
| auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 10 000 000 10/01/2009 2 000 m 2 000 m | of contactor typical | 10 000 000 |
| typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation Q 10/01/2009 2 000 m -25 +60 °C | | 5 000 000 |
| Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation 10/01/2009 2 000 m -25 +60 °C | · · · · · · · · · · · · · · · · · · · | 10 000 000 |
| Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation -25 +60 °C | reference code according to IEC 81346-2 | Q |
| installation altitude at height above sea level maximum ambient temperature • during operation 2 000 m -25 +60 °C | Substance Prohibitance (Date) | 10/01/2009 |
| ambient temperature ◆ during operation -25 +60 °C | Ambient conditions | |
| • during operation -25 +60 °C | installation altitude at height above sea level maximum | 2 000 m |
| | ambient temperature | |
| • during storage -55 +80 °C | during operation | -25 +60 °C |
| | during storage | -55 +80 °C |

| relative humidity minimum | 10 % |
|--|-------------------|
| relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 | 95 % |
| maximum | 00 /0 |
| Main circuit | |
| number of poles for main current circuit | 3 |
| number of NO contacts for main contacts | 3 |
| operating voltage | |
| at AC-3 rated value maximum | 690 V |
| at AC-3e rated value maximum | 690 V |
| operational current | |
| at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 | 50 A |
| — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C | 50 A 42 A |
| rated value | · - ·· |
| • at AC-3 | |
| — at 400 V rated value | 38 A |
| — at 500 V rated value | 32 A |
| — at 690 V rated value | 21 A |
| • at AC-3e | |
| — at 400 V rated value | 38 A |
| — at 500 V rated value | 32 A |
| — at 690 V rated value | 21 A |
| at AC-4 at 400 V rated value | 22 A |
| at AC-5a up to 690 V rated value | 44 A |
| at AC-5b up to 400 V rated value | 31.5 A |
| • at AC-6a | |
| up to 230 V for current peak value n=20 rated value | 30.8 A |
| up to 400 V for current peak value n=20 rated value | 30.8 A |
| up to 500 V for current peak value n=20 rated value | 30.8 A |
| up to 690 V for current peak value n=20 rated value | 21 A |
| • at AC-6a | |
| up to 230 V for current peak value n=30 rated value | 20.5 A |
| — up to 400 V for current peak value n=30 rated value | 20.5 A |
| — up to 500 V for current peak value n=30 rated value | 21.4 A |
| up to 690 V for current peak value n=30 rated value | 21 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 10 mm² |
| operational current for approx. 200000 operating cycles at AC-4 | |
| at 400 V rated value | 12 A |
| at 690 V rated value | 12 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 | |
| — at 24 V rated value | 35 A |
| — at 110 V rated value | 35 A |
| — at 220 V rated value | 10 A |
| — at 440 V rated value | 0.6 A |
| — at 600 V rated value | 0.6 A |
| operating power | |
| at AC-2 at 400 V rated value | 18.5 kW |
| • at AC-3 | |
| — at 230 V rated value | 11 kW |
| — at 400 V rated value | 18.5 kW |
| — at 500 V rated value | 18.5 kW |
| — at 690 V rated value | 18.5 kW |
| • at AC-3e | |
| — at 230 V rated value | 11 kW |
| — at 400 V rated value | 18.5 kW |
| — at 500 V rated value | 18.5 kW |
| — at 690 V rated value | 18.5 kW |
| operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 6 kW |
| at 400 V rated value at 690 V rated value | 10.3 kW |
| operating apparent power at AC-6a | TO.S KVV |
| • up to 230 V for current peak value n=20 rated value | 12.2 kVA |
| up to 250 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value | 21.3 kVA |
| up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value | 26.6 kVA |
| up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value | 25 kVA |
| operating apparent power at AC-6a | |
| up to 230 V for current peak value n=30 rated value | 8.1 kVA |
| up to 400 V for current peak value n=30 rated value | 14.2 kVA |
| up to 500 V for current peak value n=30 rated value | 18.5 kVA |
| • up to 690 V for current peak value n=30 rated value | 25 kVA |
| short-time withstand current in cold operating state up to 40 °C | |
| Iimited to 1 s switching at zero current maximum | 593 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 5 s switching at zero current maximum | 395 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 10 s switching at zero current maximum | 260 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 30 s switching at zero current maximum | 186 A; Use minimum cross-section acc. to AC-1 rated value |
| Iimited to 60 s switching at zero current maximum | 152 A; Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency | |
| • at AC | 1 500 1/h |
| | |

| a at DC | 1 500 1/b |
|--|------------------|
| • at DC | 1 500 1/h |
| operating frequency | 4 000 4 //- |
| • at AC-1 maximum | 1 000 1/h |
| • at AC-2 maximum | 750 1/h |
| • at AC-3 maximum | 750 1/h |
| at AC-3e maximum | 750 1/h |
| at AC-4 maximum | 250 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage at AC | |
| at 50 Hz rated value | 21 28 V |
| at 60 Hz rated value | 21 28 V |
| control supply voltage at DC | |
| rated value | 21 28 V |
| operating range factor control supply voltage rated value of magnet coil at DC | |
| • initial value | 0.7 |
| • full-scale value | 1.3 |
| operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.7 1.3 |
| • at 60 Hz | 0.7 1.3 |
| design of the surge suppressor | with varistor |
| inrush current peak | 3 A |
| duration of inrush current peak | 30 μs |
| locked-rotor current mean value | 0.3 A |
| locked-rotor current peak | 0.52 A |
| duration of locked-rotor current | 180 ms |
| holding current mean value | 45 mA |
| apparent pick-up power of magnet coil at AC | |
| • at 50 Hz | 6.6 VA |
| • at 60 Hz | 6.7 VA |
| inductive power factor with closing power of the coil | |
| • at 50 Hz | 0.98 |
| • at 60 Hz | 0.98 |
| apparent holding power of magnet coil at AC | |
| • at 50 Hz | 1.9 VA |
| • at 60 Hz | 2 VA |
| inductive power factor with the holding power of the coil | |
| ● at 50 Hz | 0.86 |
| ● at 60 Hz | 0.82 |
| closing power of magnet coil at DC | 5.9 W |
| holding power of magnet coil at DC | 1.4 W |
| closing delay | |
| • at AC | 50 80 ms |
| • at DC | 50 75 ms |
| opening delay | |
| • at AC | 30 50 ms |
| • at DC | 30 50 ms |
| arcing time | 10 10 ms |
| control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts instantaneous contact | 1 |
| number of NO contacts for auxiliary contacts instantaneous contact | 1 |
| operational current at AC-12 maximum | 10 A |
| operational current at AC-15 | |
| at 230 V rated value | 10 A |
| at 400 V rated value | 3 A |
| | |

| a at 500 V rated value | 2 A |
|---|--|
| at 500 V rated value at 600 V rated value | 2 A |
| at 690 V rated value | 1 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 | 34 A |
| at 600 V rated value | 27 A |
| yielded mechanical performance [hp] | |
| for single-phase AC motor | |
| — at 110/120 V rated value | 3 hp |
| — at 230 V rated value | 5 hp |
| • for 3-phase AC motor | |
| — at 200/208 V rated value | 10 hp |
| — at 220/230 V rated value | 10 hp |
| — at 460/480 V rated value | |
| | 25 hp |
| — at 575/600 V rated value | 25 hp |
| contact rating of auxiliary contacts according to UL | A600 / P600 |
| Short-circuit protection | |
| design of the fuse link | |
| for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA) |
| — with type of assignment 2 required | gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V, 80kA) |
| for short-circuit protection of the auxiliary switch required | gG: 10 A (500 V, 1 kA) |
| 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 |
| side-by-side mounting | Yes |
| height | 102 mm |
| width | 45 mm |
| depth | 107 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 |
| | 10 mm |
| — upwards | |
| — at the side | 6 mm |

| | 40 |
|---|--|
| — downwards | 10 mm |
| • for live parts | 40 |
| — forwards | 10 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 6 mm |
| Connections/ Terminals | |
| type of electrical connection | |
| for main current circuit | spring-loaded terminals |
| for auxiliary and control circuit | spring-loaded terminals |
| at contactor for auxiliary contacts | Spring-type terminals |
| of magnet coil | Spring-type terminals |
| type of connectable conductor cross-sections | |
| for main contacts | |
| — solid | 2x (1 10 mm²) |
| — solid or stranded | 2x (1 10 mm²) |
| finely stranded with core end processing | 2x (1 6 mm²) |
| finely stranded without core end processing | 2x (1 6 mm²) |
| at AWG cables for main contacts | 2x (18 8) |
| connectable conductor cross-section for main contacts | |
| • solid | 1 10 mm² |
| stranded | 1 10 mm² |
| finely stranded with core end processing | 1 6 mm² |
| finely stranded without core end processing | 1 6 mm² |
| connectable conductor cross-section for auxiliary | |
| contacts | |
| solid or stranded | 0.5 2.5 mm² |
| finely stranded with core end processing | 0.5 1.5 mm² |
| finely stranded without core end processing | 0.5 2.5 mm² |
| type of connectable conductor cross-sections | |
| for auxiliary contacts | |
| — solid or stranded | 2x (0.5 2.5 mm²) |
| finely stranded with core end processing | 2x (0.5 1.5 mm²) |
| finely stranded without core end processing | 2x (0.5 2.5 mm²) |
| at AWG cables for auxiliary contacts | 2x (20 14) |
| AWG number as coded connectable conductor cross section | |
| for main contacts | 18 8 |
| for auxiliary contacts | 20 14 |
| Safety related data | |
| product function | |
| mirror contact according to IEC 60947-4-1 | Yes |
| 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 ligh demand rate according to SN 31920 with high demand rate according to SN 31920 | 73 % |
| failure rate [FIT] with low demand rate according to SN | 100 FIT |
| 31920 | |
| 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 |
| Certificates/ approvals | |
| General Product Approval | |
| | |





Confirmation







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



Type Examination Certificate



Special Test Certificate

Type Test Certificates/Test Report

Test Certificates Marine / Shipping

Miscellaneous











Marine / Shipping other Dangerous Good





Confirmation



Confirmation

Transport Information

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=3RT2028-2NB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2028-2NB30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2NB30

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

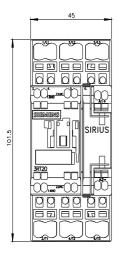
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-2NB30&lang=en

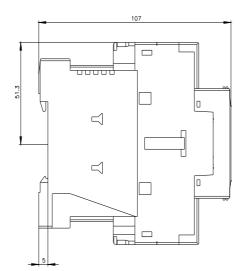
Characteristic: Tripping characteristics, I2t, Let-through current

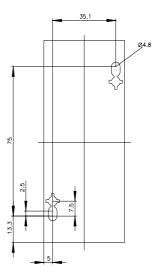
https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2NB30/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2028-2NB30&objecttype=14&gridview=view1







last modified:

6/2/2022