# **SIEMENS**

Data sheet 3RT2027-2NF30



power contactor, AC-3e/AC-3, 32 A, 15 kW / 400 V, 3-pole, 95-130 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0

| product brand name   | SIRIUS   |
|--|--|
| product designation  | Power contactor  |
| product type designation   | 3RT2   |
| General technical data   |  |
| size of contactor  | S0   |
| product extension  |  |
| <ul> <li>function module for communication</li> </ul>  | No   |
| auxiliary switch   | Yes  |
| power loss [W] for rated value of the current  |  |
| <ul> <li>at AC in hot operating state</li> </ul>   | 6.3 W  |
| <ul> <li>at AC in hot operating state per pole</li> </ul>  | 2.3 W  |
| <ul> <li>without load current share typical</li> </ul>   | 1.3 W  |
| type of calculation of power loss depending on pole  | quadratic  |
| insulation voltage   |  |
| <ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>                                   | 690 V  |
| <ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>                              | 690 V  |
| surge voltage resistance   |  |
| of main circuit rated value  | 6 kV   |
| of auxiliary circuit rated value   | 6 kV   |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V  |
| shock resistance at rectangular impulse  |  |
| • at AC  | 8,3g / 5 ms, 5,3g / 10 ms                                  |
| • at DC  | 10g / 5 ms, 7,5g / 10 ms                                   |
| shock resistance with sine pulse   |  |
| • at AC  | 13,5g / 5 ms, 8,3g / 10 ms                                 |
| • at DC  | 15g / 5 ms, 10g / 10 ms                                    |
| mechanical service life (operating cycles)   |  |
| of contactor typical   | 10 000 000   |
| <ul> <li>of the contactor with added electronically optimized<br/>auxiliary switch block typical</li> </ul>  | 5 000 000  |
| <ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>                               | 10 000 000   |
| reference code according to IEC 81346-2  | Q  |
| Substance Prohibitance (Date)  |  |
| SVHC substance name  | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8 |
| Weight   | 0.59 kg  |
| Ambient conditions   |  |
| installation altitude at height above sea level maximum  | 2 000 m  |
| ambient temperature  |  |
| during operation   | -25 +60 °C   |

| during storage  | -55 +80 °C         |
|---|--------------------|
| relative humidity minimum   | 10 %               |
| relative humidity at 55 °C according to IEC 60068-2-30                            | 95 %               |
| maximum   |                    |
| Environmental footprint   |                    |
| Environmental Product Declaration(EPD)  | Yes                |
| Global Warming Potential [CO2 eq] total   | 59.7 kg            |
| Global Warming Potential [CO2 eq] during manufacturing                            | 3.7 kg             |
| Global Warming Potential [CO2 eq] during operation                                | 56.6 kg            |
| Global Warming Potential [CO2 eq] after end of life                               | -0.626 kg          |
| Main circuit  |                    |
| number of poles for main current circuit  | 3                  |
| number of NO contacts for main contacts   | 3                  |
| operating voltage   |                    |
| <ul> <li>at AC-3 rated value maximum</li> </ul>                                   | 690 V              |
| at AC-3e rated value maximum  | 690 V              |
| operational current   |                    |
| <ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated<br/>value</li> </ul> | 50 A               |
| • at AC-1   |                    |
| <ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>          | 50 A               |
| — up to 690 V at ambient temperature 60 °C rated value                            | 42 A               |
| • at AC-3   |                    |
| — at 400 V rated value  | 32 A               |
| — at 500 V rated value  | 32 A               |
| — at 690 V rated value  | 21 A               |
| • at AC-3e  |                    |
| — at 400 V rated value  | 32 A               |
| — at 500 V rated value  | 32 A               |
| — at 690 V rated value  | 21 A               |
| <ul> <li>at AC-4 at 400 V rated value</li> </ul>                                  | 22 A               |
| ● at AC-5a up to 690 V rated value  | 44 A               |
| <ul> <li>at AC-5b up to 400 V rated value</li> </ul>                              | 26.5 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                             | 27 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                             | 18 A               |
| — up to 690 V for current peak value n=30 rated value                             | 18 A               |
| minimum cross-section in main circuit at maximum AC-1 rated value                 | 10 mm <sup>2</sup> |
| 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 60 V rated value   | 20 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             |
| <ul> <li>with 2 current paths in series at DC-1</li> </ul>                        |                    |
| — at 24 V rated value   | 35 A               |
| — at 60 V rated value   | 35 A               |

|  |  | A A   |
|--|--|---|
|  |  |   |
| • with 3 current paths in series at DC-1   |  |   |
| ### with 5 current paths in series at DC-1   |  |   |
|  |  | 0.8 A   |
|  | -  |   |
|  |  |   |
|  |  |   |
|  | — at 110 V rated value   |   |
| at 500 V rated value   |  | 35 A  |
| • at 1 current path at DC-3 at DC-5  — at 24 V rated value — at 400 V rated value — at 600  | — at 440 V rated value   |   |
|  | — at 600 V rated value   | 1.4 A   |
|  | <ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>                |   |
| - at 110 V rated value 1 A   | — at 24 V rated value  | 20 A  |
| at 220 V rated value   | — at 60 V rated value  | 5 A   |
|  | — at 110 V rated value   | 2.5 A   |
| • with 2 current paths in series at DC-3 at DC-5  - at 24 V rated value - at 50 V rated value - at 100 V rated value - at 220 V rated value - at 220 V rated value - at 220 V rated value - at 35 A  - at 440 V rated value - at 440 V rated value - at 600 V rated value - at 500 V rated value - at 600 V rated value - at 600 V rated value - at 500 V rated value - at 600  | — at 220 V rated value   | 1 A   |
| - with 2 current paths in series at DC-3 at DC-5  - at 224 V rated value - at 100 V rated value - at 220 V rated value - at 420 V rated value - at 420 V rated value - at 420 V rated value - at 440 V rated value - at 600 V rated value - at 220 V rated value - at 400 V rated value - at 600 V roted v | — at 440 V rated value   | 0.09 A  |
|  | — at 600 V rated value   | 0.06 A  |
|  | <ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>   |   |
|  | — at 24 V rated value  | 35 A  |
|  | — at 60 V rated value  | 35 A  |
|  | — at 110 V rated value   | 15 A  |
| ■ at 600 V rated value     ■ with 3 current paths in series at DC-3 at DC-5     ■ at 24 V rated value     ■ at 60 V rated value     ■ at 60 V rated value     ■ at 110 V rated value     ■ at 220 V rated value     ■ at 440 V rated value     ■ at 600 V rated value     ■ at 600 V rated value     ■ at 80-3     ■ at 230 V rated value     ■ at 400 V rated value     ■ at 690 V rated value     ■ at 400 V rated value     ■ at 500 V rated value     ■ at 400 V rated value     ■ at 690 V rated value     ■ at 690 V rated value     ■ at 900 V rated value     ■ at 690 V rated value     ■ at 900 V rated value     ■ at        | — at 220 V rated value   | 3 A   |
| with 3 current paths in series at DC-3   | — at 440 V rated value   | 0.27 A  |
| at 24 V rated value  | — at 600 V rated value   | 0.16 A  |
| - at 60 V rated value 35 A   - at 110 V rated value 35 A   - at 220 V rated value 0.6 A   - at 440 V rated value 0.6 A   - at 600 V rated value 15 kW   - at 400 V rated value 15 kW   - at 600 V rated value 15 kW   - at 600 V rated value 15 kW   - at 600 V rated value 15 kW   - at 75 kW   - at 230 V rated value 15 kW   - at 230 V rated value 15 kW   - at 400 V rated value 15 kW   - at 690 V rated value 15 kW   - at 690 V rated value 15 kW   - at 690 V rated value 10.3 kW    Operating power for approx. 200000 operating cycles at AC-4    • at 400 V rated value 10.3 kW    Operating apparent power at AC-6   • up to 230 V for current peak value n=20 rated value 21.3 kW    • up to 690 V for current peak value n=20 rated value 23.3 kW    oup to 500 V for current peak value n=20 rated value 23.4 kW    • up to 500 V for current peak value n=20 rated value 25 kV    operating apparent power at AC-6    • up to 500 V for current peak value n=30 rated value 25 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 25 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current peak value n=30 rated value 15.5 kV    operating apparent power at AC-8    • up to 500 V for current pea | <ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>   |   |
| - at 110 V rated value   | — at 24 V rated value  | 35 A  |
|  | — at 60 V rated value  | 35 A  |
| - at 440 V rated value   | — at 110 V rated value   | 35 A  |
| operating power  • at AC-3  — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value • at AC-3e — at 230 V rated value — at 690 V rated value n=20 rated value — at 690 V ror current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 690 V for current peak value n=20 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 6 | — at 220 V rated value   | 10 A  |
| oberating power     oblimate AC-3  | — at 440 V rated value   | 0.6 A   |
| • at AC-3  — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 230 V rated value • at AC-3e — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value • at 400 V rated value • at 400 V rated value • at 690 V rated value  • at 400 V rated value  • at 400 V rated value  • at 400 V rated value • at 690 V rated value  • at 690 V rated value  • at 690 V rated value  • at 690 V rated value • at 690 V rated value  • at 690 V rated value • at 690 V rated value • at 690 V rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 600 V for current peak value n=30 rated value  • up to 600 V for current peak value n=30 rated value  • limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value   | — at 600 V rated value   | 0.6 A   |
| - at 230 V rated value   | operating power  |   |
| - at 400 V rated value 15 kW - at 500 V rated value 18.5 kW  • at AC-3e - at 230 V rated value 7.5 kW - at 400 V rated value 15 kW - at 400 V rated value 15 kW - at 400 V rated value 15 kW - at 690 V rated value 15 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 690 V rated value 10.3 kW  operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 21.3 kVA • up to 400 V for current peak value n=20 rated value 23.3 kVA • up to 590 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=20 rated value 25 kVA • up to 590 V for current peak value n=30 rated value 25 kVA  operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 25 kVA  operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 25 kVA  operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 41.2 kVA • up to 500 V for current peak value n=30 rated value 5.5 kVA  oup to 500 V for current peak value n=30 rated value 15.5 kVA • up to 690 V for current peak value n=30 rated value 21.5 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.2 kVA • up to 690 V for current peak value n=30 rated value 41.5 kVA  | • at AC-3  |   |
| - at 500 V rated value - at 690 V rated value  • at AC-3e - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 500 V rated value - at 500 V rated value - at 690 V rated value - up to 230 V for current peak value n=20 rated value - up to 400 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated value - up to 600 V for current peak value n=30 rated | — at 230 V rated value   | 7.5 kW  |
| - at 690 V rated value  • at AC-3e  — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value  • at 400 V rated value  • at 400 V rated value  • at 400 V rated value  • at 690 V rated value  • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value  • up to 690 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up t | — at 400 V rated value   | 15 kW   |
| at AC-3e  — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 400 V rated value — at 690 V rated value  • at 400 V rated value  • at 400 V rated value  • at 400 V rated value  • at 690 V rated value  • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=  | — at 500 V rated value   | 15 kW   |
| - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 690 V rated value   | — at 690 V rated value   | 18.5 kW   |
| - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 690 V rated value  operating power for approx. 200000 operating cycles at AC-  at 400 V rated value  • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value   | • at AC-3e   |   |
| - at 500 V rated value - at 690 V rated value  operating power for approx. 200000 operating cycles at AC- 4  • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=3 | — at 230 V rated value   | 7.5 kW  |
| - at 690 V rated value  operating power for approx. 200000 operating cycles at AC-  4  • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 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 • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA • up to 690 V for current peak value n=30 rated value • 15.5 kVA   | — at 400 V rated value   | 15 kW   |
| operating power for approx. 200000 operating cycles at AC- 4  • at 400 V rated value • at 690 V rated value  • oup to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • 15.5 kVA   | — at 500 V rated value   | 15 kW   |
| at 400 V rated value at 690 V rated value 10.3 kW  operating apparent power at AC-6a  up to 230 V for current peak value n=20 rated value 12.2 kVA  up to 400 V for current peak value n=20 rated value 21.3 kVA  up to 500 V for current peak value n=20 rated value 23.3 kVA  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 4.2 kVA  up to 500 V for current peak value n=30 rated value 15.5 kVA  short-time withstand current in cold operating state up to 40 °C  limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value   | — at 690 V rated value   | 18.5 kW   |
| <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>10.3 kW</li> </ul> Operating apparent power at AC-6a <ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>23.3 kVA</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>25 kVA</li> </ul> Operating apparent power at AC-6a <ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>14.2 kVA</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>15.5 kVA</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>21.5 kVA</li> </ul> Short-time withstand current in cold operating state up to 40 °C <ul> <li>limited to 1 s switching at zero current maximum</li> <li>499 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>  |  |   |
| operating apparent power at AC-6a     oup to 230 V for current peak value n=20 rated value     oup to 500 V for current peak value n=20 rated value     oup to 690 V for current peak value n=20 rated value     oup to 690 V for current peak value n=20 rated value     oup to 690 V for current peak value n=20 rated value     operating apparent power at AC-6a     oup to 230 V for current peak value n=30 rated value     oup to 400 V for current peak value n=30 rated value     oup to 500 V for current peak value n=30 rated value     oup to 500 V for current peak value n=30 rated value     oup to 690 V for current pe      |  |   |
| operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value  • up to 230 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value  499 A; Use minimum cross-section acc. to AC-1 rated value   |  |   |
| <ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>23.3 kVA</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>15.5 kVA</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>15.5 kVA</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>499 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>   |  | 10.3 kW   |
| <ul> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>23.3 kVA</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>499 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>   |  |   |
| up to 500 V for current peak value n=20 rated value     up to 690 V for current peak value n=20 rated value  23.3 kVA  25 kVA   operating apparent power at AC-6a      up to 230 V for current peak value n=30 rated value     up to 400 V for current peak value n=30 rated value     up to 500 V for current peak value n=30 rated value     up to 690 V for current peak value n=30 rated value     vup to 690 V for current peak value n=30 rated value        | ·  |   |
| • up to 690 V for current peak value n=20 rated value  operating apparent power at AC-6a      • up to 230 V for current peak value n=30 rated value     • up to 400 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value   |  |   |
| operating apparent power at AC-6a         • up to 230 V for current peak value n=30 rated value         • up to 400 V for current peak value n=30 rated value         • up to 500 V for current peak value n=30 rated value         • up to 690 V for current peak value n=30 rated value         • up to 690 V for current peak value n=30 rated value         • up to 690 V for current peak value n=30 rated value          • limited to 1 s switching at zero current maximum          499 A; Use minimum cross-section acc. to AC-1 rated value   |  |   |
| <ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>this is the standard current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>8.1 kVA</li> <li>14.2 kVA</li> <li>15.5 kVA</li> <li>21.5 kVA</li> <li>499 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>   |  | 25 KVA  |
| <ul> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>timited to 1 s switching at zero current maximum</li> <li>timited to 1 s switching at zero current maximum</li> </ul>  |  |   |
| <ul> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>15.5 kVA</li> <li>21.5 kVA</li> <li>499 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>  |  |   |
| • up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value   |  |   |
| short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value  | ·  |   |
| 40 °C  ◆ limited to 1 s switching at zero current maximum  499 A; Use minimum cross-section acc. to AC-1 rated value   |  | 21.5 kVA  |
|  | 40 °C  |   |
| • limited to 5 s switching at zero current maximum  341 A; Use minimum cross-section acc. to AC-1 rated value  | -  |   |
|  | <ul> <li>limited to 5 s switching at zero current maximum</li> </ul> | 341 A; Use minimum cross-section acc. to AC-1 rated value |

| - limited to 40 a switching at your current magainsure                         | 200 A. Haa minimum areas section ass to AC 4 retail value |
|--|---|
| Iimited to 10 s switching at zero current maximum                              | 260 A; Use minimum cross-section acc. to AC-1 rated value |
| Iimited to 30 s switching at zero current maximum                              | 199 A; Use minimum cross-section acc. to AC-1 rated value |
| limited to 60 s switching at zero current maximum                              | 162 A; Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency  |   |
| • at AC  | 1 500 1/h   |
| • at DC  | 1 500 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-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   | 95 130 V  |
| at 60 Hz rated value   | 95 130 V  |
| control supply voltage at DC rated value                                       | 95 130 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  | 15 A  |
| duration of inrush current peak  | 30 µs   |
| locked-rotor current mean value  | 0.13 A  |
| locked-rotor current peak  | 0.19 A  |
| duration of locked-rotor current   | 180 ms  |
| holding current mean value   | 19 mA   |
| apparent pick-up power of magnet coil at AC                                    |   |
| • at 50 Hz   | 11.9 VA   |
| • at 60 Hz   | 12 VA   |
| inductive power factor with closing power of the coil                          |   |
| ● at 50 Hz   | 0.98  |
| ● at 60 Hz   | 0.98  |
| apparent holding power   |   |
| at minimum rated control supply voltage at DC                                  | 1.3 VA  |
| at maximum rated control supply voltage at DC                                  | 1.3 VA  |
| apparent holding power   |   |
| at minimum rated control supply voltage at AC                                  |   |
| — at 50 Hz   | 1.6 VA  |
| — at 60 Hz   | 1.8 VA  |
| at maximum rated control supply voltage at AC                                  |   |
| — at 50 Hz   | 1.6 VA  |
| — at 60 Hz   | 1.8 VA  |
| apparent holding power of magnet coil at AC                                    |   |
| • at 50 Hz   | 1.6 VA  |
| • at 60 Hz   | 1.8 VA  |
| inductive power factor with the holding power of the coil                      |   |
| • at 50 Hz   | 0.79  |
| • at 60 Hz   | 0.74  |
| closing power of magnet coil at DC   | 10.2 W  |
| holding power of magnet coil at DC   | 1.3 W   |
| closing delay  |   |
| • at AC  | 50 80 ms  |
| • at DC  | 50 80 ms  |
| opening delay  | 00 00 m3  |
| opening uelay  |   |

| • 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   |
| <ul> <li>at 400 V rated value</li> </ul>                           | 3 A  |
| • at 500 V rated value   | 2 A  |
| at 690 V rated value   | 1 A  |
| operational current at DC-12                                       |  |
| • at 24 V rated value  | 10 A   |
| at 48 V rated value  | 6 A  |
| • at 60 V rated value  | 6 A  |
| • at 110 V rated value   | 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   | 1A   |
| • 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  UL/CSA ratings          | 1 faulty switching per 100 million (17 V, 1 mA)  |
| full-load current (FLA) for 3-phase AC motor                       |  |
| • at 480 V rated value   | 27 A   |
| at 480 V rated value     at 600 V rated value                      | 27 A   |
| yielded mechanical performance [hp]                                | 2.77   |
| • for single-phase AC motor  |  |
| — at 110/120 V rated value   | 2 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   | 20 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 DIN rail according to DIN EN 60715   |
| height   | 102 mm   |
| width  | 45 mm  |
| depth  | 107 mm   |
| required spacing   |  |
| • with side-by-side mounting                                       |  |

| - Conversion - downwards - of the side - of the side - of the side - of prounded parts - forwards - of prounded parts - of the side - of the side - of the parts - of the side - of the parts - forwards - of the parts - forwards - of the parts - of the parts - of the side - of the sid | — forwards   | 10 mm                   |
|--|--|-------------------------|
| downwards downwards for grounded parts for yeards for yea   |  |                         |
| - at the add   | •  |                         |
| - forgrounded paths - forwards - upwards - at the side   |  |                         |
| Forwards 10 mm   |  | O min                   |
| - upwards  | -  | 40                      |
|  |  |                         |
| • for live parts • for live parts - forwards - upwards - upwards - downwards - downwards - at the side - for main current circuit - for auxiliary and control circuit - side connections - for main current circuit - for auxiliary and control circuit - side connections - for main contacts - solid or stranded - for side stranded - for side stranded - finely stranded without one end processing - finely stranded with core end processing - finely stranded without core end processing - finely stranded with core end processing - finely stranded without core end processing | ·  |                         |
| - for live parts - forwards - upwards - upwards - downwards - at the side - downwards - at the side - forman current circuit - for aunitary and control circuit - for main current circuit - for main contacts - forman contacts - solid - solid or stranded - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core and processing  |  |                         |
| forwards   |  | 10 mm                   |
| - upwards - downwards - for auxiliary and control circuit - for auxiliary and control circuit - downwards - for main contacts - solid or stranded - finely stranded with core end processing - finely stran | for live parts   |                         |
| downwards at the side  Connections Torminals  Type of olectrical connection for main current circuit for auxiliary and control circuit at contactor for auxiliary and control circuit at contactor for auxiliary contacts a condition of the conductor cross-sections for main contacts solid solid solid or stranded finely stranded with core end processing finely stranded with core en   | — forwards   | 10 mm                   |
| Connections Torminals  Type of electrical connection  • for main current clicuit  • at contactor for auxiliary contacts  • of magnet coil  Type of connectable conductor cross-sections  • for main contacts  - solid  - solid or stranded  - finely stranded with core end processing  • for AWG cables for main contacts  • solid  • sinded of training  • finely stranded with core end processing  • for ourising contacts  • for auxiliary contacts  • for au | — upwards  | 10 mm                   |
| Connections/ Terminals         Spring-loaded terminals           Type of electrical connection         spring-loaded terminals           • for main current circuit         spring-loaded terminals           • at contactor for auxiliary contacts         Spring-lype terminals           • of magnet coil         Spring-lype terminals           • for main contacts         • for main contacts           • solid         2x (1 10 mm²)           • solid or stranded         2x (1 6 mm²)           • for MVG cables for main contacts         2x (1 6 mm²)           • for MVG cables for main contacts         2x (1 6 mm²)           • solid or stranded without core end processing         1 10 mm²           • stranded without core end processing         1 6 mm²           • forley stranded without core end processing         1 6 mm²           • forley stranded without core end processing         0.5 2.5 mm²           • finely stranded without core end processing         0.5 2.5 mm²           • finely stranded without core end processing         0.5 2.5 mm²           • for auxiliary contacts         2x (0.5 2.5 mm²)           • for auxiliary contacts         2x (0.5 2.5 mm²)           • for auxiliary stranded without core end processing         2x (0.5 2.5 mm²)           • for auxiliary contacts   | — downwards  | 10 mm                   |
| type of electrical connectation  • for main current circuit  • a contactor for auxiliary contacts  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  • solid  — solid connectable conductor end processing — finely stranded without core end processing • for AWG cables for main contacts  • solid  • stranded • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid • stranded • finely stranded with core end processing • finely stranded without core end processing • for own conductor cross-sections • for auxiliary contacts  • for for the stranded • finely stranded without core end processing • for own conductor cross-sections • for auxiliary contacts  • for for the stranded • finely stranded without core end processing • for for the stranded • finely stranded without core end processing • for for the stranded • finely stranded without core end processing • for for auxiliary contacts  • for auxiliary  | — at the side  | 6 mm                    |
| For main current circuit     For auxillary and control circuit     For auxillary and control circuit     For auxillary and control circuit     For auxillary contacts     For main contacts     F      | Connections/ Terminals   |                         |
| e for auxillary and control circuit   spring-loaded terminals   Spring-type    | type of electrical connection  |                         |
| a t contactor for auxiliary contacts of magnet coil  type of connectable conductor cross-sections  for main contacts  - solid - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts  - solid  a stranded - finely stranded without core end processing - for AWG cables for main contacts - solid  a stranded - finely stranded without core end processing - for AWG cables for main contacts - solid - stranded - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - finely stranded without core end processing - solid or strander - finely stranded without core end processing - finely stranded without end processing - finely stranded without end processing - finely stranded without end proc  | • for main current circuit   | spring-loaded terminals |
| type of connectable conductor cross-sections  • for main contacts  — solid   | <ul> <li>for auxiliary and control circuit</li> </ul>                      | spring-loaded terminals |
| type of connectable conductor cross-sections  • for main contacts  — solid   | <ul> <li>at contactor for auxiliary contacts</li> </ul>                    | Spring-type terminals   |
| type of connectable conductor cross-sections  • for main contacts  — solid  — solid or stranded  — finely stranded with core end processing — finely stranded with core end processing  • for AWG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • for AWG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded without core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded with core end processing  • for fard Granded  — finely stranded  —  | •  |                         |
| Solid or stranded  |  |                         |
| solid or stranded 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) for AWG cables for main contacts solid 1 10 mm² solid connectable conductor cross-section for main contacts solid 1 10 mm² stranded 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 finely stranded without core end processing 0.5 2.5 mm² solid or stranded 0 2.5 mm² solid or stranded 0 2.5 mm² finely stranded with core end processing 0.5 2.5 mm² finely stranded without core end processing 0.5 2.5 mm² finely stranded without core end processing 2x (0.5 2.5 mm² finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded without core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end processing 2x (0.5 2.5 mm²) finely stranded with core end proces  |  |                         |
| - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing • for AWG cables for main contacts 2x (1 6 mm²) 2x (1 6 mm²) 2x (18 8)  connectable conductor cross-section for main contacts • solid 1 10 mm² • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts 2x (20 1.5 mm²)  • for fawG cables for auxiliary contacts 2x (20 1.5 mm²)  • for auxiliary contacts - for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for standed with core end processing • for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for standed with core end processing • for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for standed with core end processing • for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for standed with core end processing • for auxiliary contacts  2x (20 15 mm²)  2x (20  |  | 2x (1 10 mm²)           |
| - finely stranded with core end processing - finely stranded without core end processing - for AWG cables for main contacts  • solid • stranded • finely stranded without core end processing - solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded - finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • for faw for dealer for auxiliary contacts • solid or stranded - finely stranded with core end processing • for faw for cables for auxiliary contacts  • for main contacts • for main contacts • for main contacts • for main contacts • for auxiliary contacts  • for positively driven operation according to IEC 60947-5-1 • suitable for safely function • mirror contact according to IEC 60947-5-1 • suitable for safely function • mirror contact as safety-related switching OFF  yes  service iffe maximum 20 a  test wear-related service life necessary yes  proportion of dangerous fallures • with low demand rate according to SN 31920  ### 100 FITT  ### 100 Mirror ### |  |                         |
| - finely stranded without core end processing  • for AWG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • for availiary contacts  - solid or stranded  - finely stranded with core end processing  • for AWG cables for auxiliary contacts  • for awiliary contacts  2 (2 (3 2.5 mm²)  • for AWG cables for availiary contacts  • for awiliary contacts       |  |                         |
| ornectable conductor cross-section for main contacts   |  |                         |
| connectable conductor cross-section for main contacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded without core end processing  • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross-section  • for main contacts  • for auxiliary contacts  • for section  • for auxiliary contacts  20 14   Safety related data  product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according to IEC 60947-5-1  • suitable for safety function  • suitable for safety function  Yes  sultability for use safety-related switching OFF  Yes  service life maximum  20 a  test wear-related service life necessary  Pyes  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  failure rate [FTT] with low demand rate according to SN 31920  failure rate [FTT] with low demand rate according to SN 31920  |  |                         |
| * solid     * stranded     * stranded     * finely stranded with core end processing     * finely stranded without core end processing     * finely stranded without core end processing     * solid or stranded     * finely stranded without core end processing     * solid or stranded     * finely stranded without core end processing     * for auxiliary contacts     * solid or stranded     * finely stranded without core end processing     * for auxiliary contacts     * for AWG cables for auxiliary contacts     * for AWG cables for auxiliary contacts     * 2x (0.5 2.5 mm²)     * for AWG cables for auxiliary contacts     * for auxiliary           |  | 24 (10 0)               |
| • stranded  • finely stranded with core end processing  • finely stranded without core end processing  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded without core end processing  — finely stranded without core end pro |  | 1 10 mm²                |
| • finely stranded with core end processing • finely stranded without core end processing connectable conductor cross-section for auxillary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • for auxiliary contacts  - solid or stranded - finely stranded with core end processing • for auxiliary contacts  - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - for alviliary contacts 2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts 2x (20 14)  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  - solid for safety function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitability for use safety-related switching OFF  service life maximum 20 a  test wear-related service life necessary  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920   |  |                         |
| finely stranded without core end processing     connectable conductor cross-section for auxiliary contacts     solid or stranded     ifinely stranded with core end processing     ifinely stranded without core end processing     ifinely stranded without core end processing     ifinely stranded without core end processing     if or auxiliary contacts     - solid or stranded     - solid or stranded     - finely stranded with core end processing     - finely stranded with core end processing     - finely stranded without core end processing     - finely stranded without core end processing     - for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     if or auxiliary contacts     if or aux      |  |                         |
| connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  — finely stranded without core end processing  2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  20 14  Safety related data  product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according to IEC 60947-5-1  • suitable for safety function  • suitable for safety function  • suitable for safety - related switching OFF  yes  service life maximum  20 a  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  100 0000  failure rate [FIT] with low demand rate according to SN 31920  100 0000  failure rate [FIT] with low demand rate according to SN 31920  100 FIT   |  |                         |
| • solid or stranded     • finely stranded with core end processing     • finely stranded with core end processing     • finely stranded without core end processing     • for auxiliary contacts     • for auxiliary contacts     • solid or stranded     • finely stranded with core end processing     • for auxiliary contacts     • solid or stranded     • finely stranded with core end processing     • finely stranded without core end processing     • finely stranded without core end processing     • for AWG cables for auxiliary contacts     • for AWG cables for auxiliary contacts     • for main contacts     • for main contacts     • for main contacts     • for auxiliary contacts     • for ouxiliary contacts      • for ouxiliary contacts      • for ouxiliary contacts      • for ouxiliary contacts      • for ouxiliary contacts      • for ouxiliary contacts      • for safety function     • mirror contact according to IEC 60947-4-1     • positively driven operation according to IEC 60947-5-1     • positively driven operation according to IEC 60947-5-1     • suitable for safety function      • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920     • with high demand rate according to SN 31920     • with high demand rate according to SN 31920     failure rate [FIT] with low demand rate according to SN 31920     failure rate [FIT] with low demand rate according to SN 31920     failure rate [FIT] with low demand rate according to SN 31920   |  | 1 6 mm²                 |
| • finely stranded with core end processing • finely stranded without core end processing  type of connectable conductor cross-sections • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — solid or auxiliary contacts — 2x (0.5 2.5 mm²) — to fire AWG cables for auxiliary contacts — 2x (20 14)  AWG number as coded connectable conductor cross section — for main contacts — to fire maxiliary contacts — to fire max          | -  |                         |
| • finely stranded without core end processing     type of connectable conductor cross-sections     • for auxiliary contacts         — solid or stranded         — finely stranded with core end processing         — finely stranded with core end processing         — finely stranded without core end processing         — finely stranded without core end processing         — for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • for auxiliary contacts          • for auxiliary contacts         • for auxiliary contacts          • for successing         • for succes      |  |                         |
| type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing 2x (0.5 1.5 mm²) — finely stranded without core end processing 9  |  |                         |
| • for auxiliary contacts     — solid or stranded     — finely stranded with core end processing     — finely stranded without core end processing     — finely stranded without core end processing     — finely stranded without core end processing     • for AWG cables for auxiliary contacts     2x (0.5 2.5 mm²)      • for AWG cables for auxiliary contacts     2x (20 14)  AWG number as coded connectable conductor cross section     • for main contacts     • for auxiliary contacts     • for auxiliary contacts     20 14  Safety related data  product function     • mirror contact according to IEC 60947-4-1     • positively driven operation according to IEC 60947-5-1     • positively driven operation according to IEC 60947-5-1     • suitable for safety function     suitablility for use safety-related switching OFF     yes  service life maximum     20 a  test wear-related service life necessary     yes  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920     **evice of the first of                  |  | 0.5 2.5 mm²             |
| solid or stranded finely stranded with core end processing finely stranded without core end processing 2x (20 14)  AWG number as coded connectable conductor cross section for main contacts for main contacts for auxiliary conta   |  |                         |
| finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for auxiliary contacts  2x (20 14)  AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts fo   | ,  |                         |
| - finely stranded without core end processing  • for AWG cables for auxiliary contacts  2x (20 14)  AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function  suitability for use safety-related switching OFF  service life maximum  20 a  test wear-related service life necessary  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT   | — solid or stranded  |                         |
| • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section      • for main contacts     • for auxiliary contacts      • for auxiliary contacts      • for auxiliary contacts      • for of auxiliary contacts      • for auxiliary contac      | <ul> <li>finely stranded with core end processing</li> </ul>               | 2x (0.5 1.5 mm²)        |
| AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts 20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety-related switching OFF  service life maximum 20 a  test wear-related service life necessary  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 1000 000  failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  | <ul> <li>finely stranded without core end processing</li> </ul>            | 2x (0.5 2.5 mm²)        |
| efor main contacts  • for auxiliary contacts  • for auxiliary contacts  20 14  Safety related data  product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according to IEC 60947-5-1  • positively driven operation according to IEC 60947-5-1  • suitable for safety function  suitability for use safety-related switching OFF  yes  service life maximum  20 a  test wear-related service life necessary  yes  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  1 000 000  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  | for AWG cables for auxiliary contacts                                      | 2x (20 14)              |
| • for main contacts     • for auxiliary contacts     20 14  Safety related data  product function     • mirror contact according to IEC 60947-4-1     • positively driven operation according to IEC 60947-5-1     • suitable for safety function     • suitability for use safety-related switching OFF     service life maximum     20 a  test wear-related service life necessary     yes  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920     1000 000  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  |  |                         |
| for auxiliary contacts      Safety related data  product function      mirror contact according to IEC 60947-4-1     positively driven operation according to IEC 60947-5-1     suitable for safety function     suitability for use safety-related switching OFF     yes  service life maximum     20 a  test wear-related service life necessary     yes  proportion of dangerous failures     with low demand rate according to SN 31920     with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  |  | 40 0                    |
| product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according to IEC 60947-5-1  • suitable for safety function  suitability for use safety-related switching OFF  yes  service life maximum  20 a  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  Towns of the service life service life service life service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  † alure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT   |  |                         |
| product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according to IEC 60947-5-1  • suitable for safety function  suitability for use safety-related switching OFF  yes  service life maximum  20 a  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT   | ·  | 20 14                   |
| <ul> <li>mirror contact according to IEC 60947-4-1</li> <li>positively driven operation according to IEC 60947-5-1</li> <li>suitable for safety function</li> <li>suitability for use safety-related switching OFF</li> <li>service life maximum</li> <li>20 a</li> <li>test wear-related service life necessary</li> <li>proportion of dangerous failures</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>100 FIT</li> </ul>   |  |                         |
| <ul> <li>positively driven operation according to IEC 60947-5-1</li> <li>suitable for safety function</li> <li>yes</li> <li>suitability for use safety-related switching OFF</li> <li>yes</li> <li>service life maximum</li> <li>20 a</li> <li>test wear-related service life necessary</li> <li>proportion of dangerous failures</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>1 000 000</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>100 FIT</li> </ul>  | ·  |                         |
| suitable for safety function     suitability for use safety-related switching OFF     Yes     service life maximum     20 a  test wear-related service life necessary     Yes  proportion of dangerous failures     with low demand rate according to SN 31920     with high demand rate according to SN 31920     with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  | -  |                         |
| suitability for use safety-related switching OFF  service life maximum  20 a  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  To which high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  | <ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul> | No                      |
| service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  100 FIT  | suitable for safety function   | Yes                     |
| test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  100 FIT  100 FIT  | suitability for use safety-related switching OFF                           | Yes                     |
| proportion of dangerous failures  • with low demand rate according to SN 31920 40 %  • with high demand rate according to SN 31920 73 %  B10 value with high demand rate according to SN 31920 1 000 000  failure rate [FIT] with low demand rate according to SN 31920 100 FIT  | service life maximum   | 20 a                    |
| <ul> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>B10 value with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>100 FIT</li> </ul>   | test wear-related service life necessary                                   | Yes                     |
| <ul> <li>◆ with high demand rate according to SN 31920</li> <li>B10 value with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>100 FIT</li> <li>31920</li> </ul>  | proportion of dangerous failures   |                         |
| B10 value with high demand rate according to SN 31920 1 000 000  failure rate [FIT] with low demand rate according to SN 31920 100 FIT   | <ul> <li>with low demand rate according to SN 31920</li> </ul>             | 40 %                    |
| failure rate [FIT] with low demand rate according to SN 100 FIT 31920  | <ul> <li>with high demand rate according to SN 31920</li> </ul>            | 73 %                    |
| 31920  | B10 value with high demand rate according to SN 31920                      | 1 000 000               |
| 31920  | failure rate [FIT] with low demand rate according to SN                    | 100 FIT                 |
| ISO 13849  |  |                         |
|  | ISO 13849  |                         |

| device type according to ISO 13849-1                    | 3  |
|---|--|
| overdimensioning according to ISO 13849-2 necessary     | Yes  |
| IEC 61508   |  |
| safety device type according to IEC 61508-2             | Type A   |
| Electrical Safety                                       |  |
| 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 |
| Approvals Certificates                                  |  |

#### **General Product Approval**



Confirmation







<u>KC</u>

| General | Product Ap- |
|---------|-------------|
| proval  |             |

EMV

**Functional Saftey** 

**Test Certificates** 





Type Examination Certificate

Type Test Certificates/Test Report

Special Test Certific-

**Miscellaneous** 

#### Marine / Shipping













other

**Dangerous goods** 

**Environment** 

**Miscellaneous** 

Confirmation

Confirmation

**Special Test Certific-**<u>ate</u>

Railway

**Transport Information** 



### **Environment**

**Environmental Confirmations** 

## Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RT2027-2NF30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-2NF30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-2NF30

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

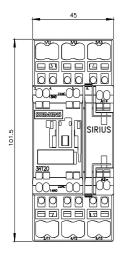
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2027-2NF30&lang=en

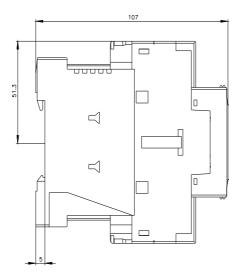
Characteristic: Tripping characteristics, I2t, Let-through current

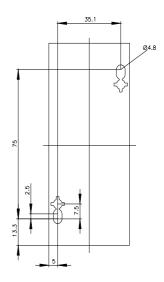
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-2NF30/char

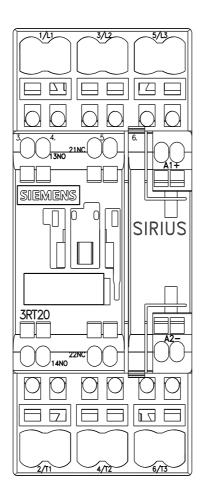
Further characteristics (e.g. electrical endurance, switching frequency)

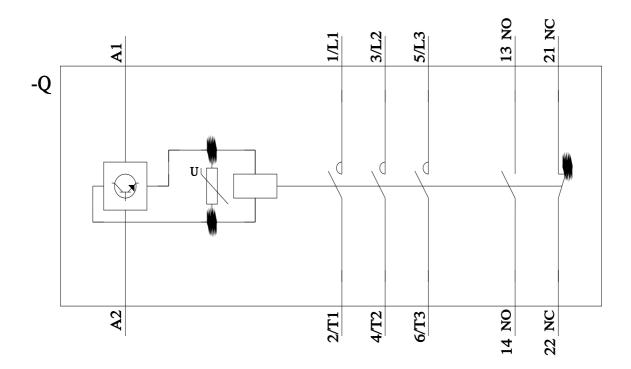
3RT2027-2NF30&objecttype=14&gridview=view1 http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb











last modified: