## **SIEMENS**

Data sheet 3RT2038-1SP30



contactor, AC-3, 80 A/400 V/60  $^{\circ}\text{C}$  S2, 3-pole, 175-280 V AC/DC, F-PLC-IN, with varistor, 1 NC, screw terminal

| product type designation product type designation general technical data  size of contactor product extension  • function module for communication • auxillary 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 insulation voltage • of main circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit rated value  surge voltage resistance • of main circuit rated value • of auxillary circuit rated value • of auxillary circuit rated value  shock resistance at rectangular impulse • at AC • at DC  shock resistance at rectangular impulse • at AC • at DC  mechanical service life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxillary switch block typical • of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  of the contactor with added auxillary switch block typical  | 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 sine pulse • at AC • at DC • or ontactor 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 sw  | product designation  | Power contactor           |
| size of contactor product extension • function module for communication • function module for communication • 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 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 auxiliary oblique for safe isolation between coll 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  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  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 bloc  | product type designation   | 3RT2                      |
| product extension • function module for communication • auxillary 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 circuit rated value • of auxiliary circuit rated value • of x, 7g / 5 ms, 4.5g / 10 ms • at AC • at DC  shock resistance at rectangular impulse • at AC • at DC  shock resistance with sine pulse • at   | General technical data   |                           |
| • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state   17.1 W • at AC in hot operating state   2 W • without load current share typical   2 W  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 main circuit rated value   6 kV • of auxiliary circuit rated value   6 kV • of xy   7 y y y y y y y y y y y y y y y y y   | size of contactor  | S2                        |
| auxiliary switch     power loss [W] for rated value of the current     at AC in hot operating state   | 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 foliand main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of the cristance with sine pulse of at AC of the cristance with sine pulse of at AC of the cristance with sine pulse of at AC of the 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 Qusustance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation  17.1 W  17.1 W  5.7 W  5.7 W  5.7 W  5.7 W  5.7 W  5.90 V  690 V  68V  400 V  690 V  400 V  400 V  400 V  500 V  500 V  500 000  500 00  | <ul> <li>function module for communication</li> </ul>                      | No                        |
| at AC in hot operating state per pole  bit 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 rated value  of avxiliary avxiliary insulated avxiliary insulated avxiliary switch sine pulse  of at AC  of at AC  of at AC  of contactor typical  of othe contactor with added electronically optimized avxiliary switch block typical  of the contactor with added dectronically optimized avxiliary 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 a   | 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 circuit rated value of avxiliary sible voltage for safe isolation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse of at AC of 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 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 adde   | 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 main circuit 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 auxiliary switch block typical   | <ul> <li>at AC in hot operating state</li> </ul>                           | 17.1 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  ### auxiliary 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  ### shock resistance with sine pulse  ### shock resistance with sine pulse  ### shock resistance with sine pulse  ### shock resistance   | <ul> <li>at AC in hot operating state per pole</li> </ul>                  | 5.7 W                     |
| 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     active at rectangular impulse     of at AC     of contactor with sine pulse     of the Contactor with added electronically optimized auxiliary switch block typical     of the contactor with added delectronically 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 swi   | <ul> <li>without load current share typical</li> </ul>                     | 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 EN 60947-1  shock resistance at rectangular impulse     of at AC     of C     of C     of T,7g / 5 ms, 4.5g / 10 ms     of the C      of the contactor with sine pulse     of the 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     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  reference code according to IEC 81346-2     Q  Substance Prohibitance (Date)  installation altitude at height above sea level maximum  ambient temperature     oduring operation  -25 +60 °C   | insulation voltage   |                           |
| surge voltage resistance  of main 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  ot at AC  at DC  7.7g / 5 ms, 4.5g / 10 ms  shock resistance with sine pulse  ot at AC  at DC  12g / 5 ms, 7g / 10 ms  at DC  12g / 5 ms, 7g / 10 ms  mechanical service life (switching cycles)  of contactor typical  of the 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  Q  Substance Prohibitance (Date)  installation altitude at height above sea level maximum  ambient temperature  of during operation  -25 +60 °C  | <ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul> | 690 V                     |
| of main circuit rated value     of auxiliary circuit rated value     amaximum 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     or contactor typical     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 ad   |  | 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     at 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      od the contactor with added auxiliary   | 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  at AC • at DC  12g / 5 ms, 4.5g / 10 ms  12g / 5 ms, 7g / 10 ms  12g / 5 ms, 7g / 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  400 V  7.7g / 5 ms, 4.5g / 10 ms  7.7g / 5 ms, 4.5g / 10 ms  12g / 5 ms, 7g / 10 ms  5 000 000  5 000 000  5 000 000  5 000 000   | <ul> <li>of main circuit rated value</li> </ul>                            | 6 kV                      |
| shock resistance at rectangular impulse  • at AC  • at DC  **Nock resistance with sine pulse  • at AC  • at DC  **Nock resistance with sine pulse  • at AC  • at DC  • at DC  **Nock resistance with sine pulse  • at AC  • at DC  **Nock resistance with sine pulse  • at AC  • at DC  **Nock resistance with sine pulse  • at AC  • at DC  **Mochanical 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 t  | of auxiliary circuit rated value   | 6 kV                      |
| <ul> <li>at AC</li> <li>at DC</li> <li>7.7g / 5 ms, 4.5g / 10 ms</li> <li>shock resistance with sine pulse</li> <li>at AC</li> <li>at DC</li> <li>12g / 5 ms, 7g / 10 ms</li> <li>at DC</li> <li>12g / 5 ms, 7g / 10 ms</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor typical</li> <l< td=""><td></td><td>400 V</td></l<></ul> |  | 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  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  • during operation  12g / 5 ms, 7g / 10 ms  5 000 000  5 000 000  5 000 000  5 000 000   | • at AC  | 7.7g / 5 ms, 4.5g / 10 ms |
| <ul> <li>at AC</li> <li>at DC</li> <li>12g / 5 ms, 7g / 10 ms</li> <li>mechanical service life (switching cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>oduring operation</li> <li>-25 +60 °C</li> </ul>  | • at DC  | 7.7g / 5 ms, 4.5g / 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  12g / 5 ms, 7g / 10 ms  5 000 000  5 000 000  5 000 000  5 000 000  | 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 of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation  5 000 000 5 000 000 5 000 000 5 000 000  | • at AC  | 12g / 5 ms, 7g / 10 ms    |
| <ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>during operation</li> <li>5 000 000</li> <li>5 000 000</li> <li>000</li> <li>01/29/2021</li> </ul>  | • at DC  | 12g / 5 ms, 7g / 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  5 000 000  5 000 000     | 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  of the contactor with added auxiliary switch block typical  5 000 000  01/29/2021  Auxiliary switch block typical  5 000 000  01/29/2021   | <ul> <li>of contactor typical</li> </ul>                                   | 5 000 000                 |
| reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 01/29/2021  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature  • during operation -25 +60 °C  |  | 5 000 000                 |
| Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  01/29/2021  2 000 m  -25 +60 °C  |  | 5 000 000                 |
| Ambient conditions  installation altitude at height above sea level maximum 2 000 m  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)  | 01/29/2021                |
| 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   | <ul> <li>during operation</li> </ul>                                       | -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        |
| <ul> <li>at AC-3e rated value maximum</li> </ul>   | 690 V        |
| operational current  |              |
| <ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> <li>at AC-1</li> </ul>                                 | 90 A         |
| <ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C</li> </ul> | 90 A<br>80 A |
| rated value  |              |
| • at AC-3  |              |
| — at 400 V rated value   | 80 A         |
| — at 500 V rated value   | 80 A         |
| — at 690 V rated value   | 58 A         |
| • at AC-3e   |              |
| — at 400 V rated value   | 80 A         |
| — at 500 V rated value   | 80 A         |
| — at 690 V rated value   | 58 A         |
| <ul> <li>at AC-4 at 400 V rated value</li> </ul>   | 55 A         |
| <ul> <li>at AC-5a up to 690 V rated value</li> </ul>   | 79.2 A       |
| <ul> <li>at AC-5b up to 400 V rated value</li> </ul>   | 66.4 A       |
| • at AC-6a   |              |
| <ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>  | 70 A         |
| <ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>  | 70 A         |
| <ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>  | 70 A         |
| <ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>  | 58 A         |
| • at AC-6a   |              |
| <ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>  | 46.7 A       |
| — up to 400 V for current peak value n=30 rated value  | 46.7 A       |
| — up to 500 V for current peak value n=30 rated value  | 46.7 A       |
| up to 690 V for current peak value n=30 rated value  | 46.7 A       |
| minimum cross-section in main circuit at maximum AC-1 rated value  | 35 mm²       |
| operational current for approx. 200000 operating cycles at AC-4  |              |
| • at 400 V rated value   | 30 A         |
| at 690 V rated value   | 24 A         |
| operational current  |              |
| • at 1 current path at DC-1  |              |
| — at 24 V rated value  | 55 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  | 55 A         |
| — at 110 V rated value   | 45 A         |
| — at 220 V rated value   | 5 A          |
|  |              |

| — at 440 V rated value  | 1 A   |
|---|---|
| — at 600 V rated value  | 0.8 A   |
| <ul> <li>with 3 current paths in series at DC-1</li> </ul>  |   |
| — at 24 V rated value   | 55 A  |
| — at 110 V rated value  | 55 A  |
| — at 220 V rated value  | 45 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   | 35 A  |
| — at 110 V rated value  | 2.5 A   |
| — at 220 V rated value  | 1 A   |
| — at 440 V rated value  | 0.1 A   |
| — at 600 V rated value  | 0.06 A  |
|   | 0.00 A  |
| with 2 current paths in series at DC-3 at DC-5  |   |
| — at 24 V rated value   | 55 A  |
| — at 110 V rated value  | 25 A  |
| — at 220 V rated value  | 5 A   |
| — at 440 V rated value  | 0.27 A  |
| — at 600 V rated value  | 0.16 A  |
| <ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>  |   |
| — at 24 V rated value   | 55 A  |
| — at 110 V rated value  | 55 A  |
| — at 220 V rated value  | 25 A  |
| — at 440 V rated value  | 0.6 A   |
| — at 600 V rated value  | 0.35 A  |
| operating power   |   |
| <ul><li>at AC-2 at 400 V rated value</li></ul>  | 37 kW   |
| • at AC-3   |   |
| — at 230 V rated value  | 22 kW   |
| — at 400 V rated value  | 37 kW   |
| — at 500 V rated value  | 37 kW   |
| — at 690 V rated value  | 45 kW   |
| • at AC-3e  |   |
| — at 230 V rated value  | 22 kW   |
| — at 400 V rated value  | 37 kW   |
| — at 500 V rated value  | 37 kW   |
| — at 690 V rated value  | 45 kW   |
| operating power for approx. 200000 operating cycles   | 45 KVV  |
| at AC-4   |   |
| at 400 V rated value  | 15.8 kW   |
| at 690 V rated value  | 21.8 kW   |
| operating apparent power at AC-6a   |   |
| • up to 400 V for current peak value n=20 rated value   | 48 400 VA   |
| <ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>   | 60 600 VA   |
| <ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>   | 69 300 VA   |
|   | 00 000 VA   |
| operating apparent power at AC-6a   | 19 600 \/A  |
| up to 230 V for current peak value n=30 rated value   | 18 600 VA   |
| up to 400 V for current peak value n=30 rated value   | 32 300 VA   |
| up to 500 V for current peak value n=30 rated value   | 40 400 \ / A  |
| <ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>   | 40 400 VA   |
|   | 40 400 VA<br>55 800 VA  |
| short-time withstand current in cold operating state up to 40 °C  |   |
| short-time withstand current in cold operating state  |   |
| short-time withstand current in cold operating state up to 40 °C  | 55 800 VA   |
| short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  | 55 800 VA 1 298 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  • limited to 5 s switching at zero current maximum  | 1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 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  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum   | 1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 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  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  | 1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 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  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum | 1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value |

| operating frequency  |                                |
|--|--------------------------------|
| <ul> <li>at AC-1 maximum</li> </ul>                                | 700 1/h                        |
| • at AC-2 maximum  | 350 1/h                        |
| <ul><li>at AC-3 maximum</li></ul>                                  | 500 1/h                        |
| <ul> <li>at AC-3e maximum</li> </ul>                               | 500 1/h                        |
| at AC-4 maximum  | 150 1/h                        |
| Control circuit/ Control   |                                |
| type of voltage of the control supply voltage                      | AC/DC                          |
| control supply voltage at AC                                       |                                |
| <ul> <li>at 50 Hz rated value</li> </ul>                           | 175 280 V                      |
| at 60 Hz rated value   | 175 280 V                      |
| control supply voltage at DC                                       |                                |
| rated value  | 175 280 V                      |
| type of PLC-control input according to IEC 60947-1                 | Type 1                         |
| consumed current at PLC-control input according to                 | 11 mA                          |
| IEC 60947-1 maximum  |                                |
| voltage at PLC-control input rated value                           | 24 V                           |
| operating range factor of the voltage at PLC-control               | 0.8 1.1                        |
| input operating range factor control supply voltage rated          |                                |
| value of magnet coil at DC   |                                |
| • initial value  | 0.8                            |
| full-scale value   | 1.1                            |
| operating range factor control supply voltage rated                |                                |
| value of magnet coil at AC   |                                |
| ● at 50 Hz   | 0.8 1.1                        |
| ● at 60 Hz   | 0.8 1.1                        |
| design of the surge suppressor                                     | with varistor                  |
| inrush current peak  | 43 A                           |
| duration of inrush current peak                                    | 10 µs                          |
| locked-rotor current mean value                                    | 0.18 A                         |
| locked-rotor current peak  | 0.42 A                         |
| duration of locked-rotor current                                   | 230 ms                         |
| holding current mean value   | 0.01 A                         |
| apparent pick-up power of magnet coil at AC                        |                                |
| ● at 50 Hz   | 40 VA                          |
| ● at 60 Hz   | 40 VA                          |
| apparent holding power of magnet coil at AC                        |                                |
| • at 50 Hz   | 2 VA                           |
| • at 60 Hz   | 2 VA                           |
| closing power of magnet coil at DC                                 | 40 W                           |
| holding power of magnet coil at DC                                 | 1.6 W                          |
| closing delay  |                                |
| • at AC  | 35 110 ms                      |
| • at DC  | 35 110 ms                      |
| opening delay  |                                |
| • at AC  | 30 55 ms                       |
| • at DC  | 30 55 ms                       |
| recovery time after power failure typical                          | 2.1 s                          |
| arcing time  | 10 20 ms                       |
| control version of the switch operating mechanism                  | Fail-safe PLC input (F-PLC-IN) |
| Auxiliary circuit  |                                |
| number of NC contacts for auxiliary contacts instantaneous contact | 1                              |
| number of NO contacts for auxiliary contacts instantaneous contact | 0                              |
| 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                            |
| • at 500 V rated value   | 2 A                            |

| at 690 V rated value   | 1 A  |
|--|--|
| operational current at DC-12   |  |
| <ul><li>at 24 V rated value</li></ul>  | 10 A   |
| <ul> <li>at 48 V rated value</li> </ul>  | 6 A  |
| <ul> <li>at 60 V rated value</li> </ul>  | 6 A  |
| <ul> <li>at 110 V rated value</li> </ul>   | 3 A  |
| <ul> <li>at 125 V rated value</li> </ul>   | 2 A  |
| <ul> <li>at 220 V rated value</li> </ul>   | 1 A  |
| at 600 V rated value   | 0.15 A   |
| operational current at DC-13   |  |
| <ul><li>at 24 V rated value</li></ul>  | 10 A   |
| <ul> <li>at 48 V rated value</li> </ul>  | 2 A  |
| <ul> <li>at 60 V rated value</li> </ul>  | 2 A  |
| <ul> <li>at 110 V rated value</li> </ul>   | 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   | 65 A   |
| at 600 V rated value   | 62 A   |
| yielded mechanical performance [hp]  |  |
| for single-phase AC motor  |  |
| — at 110/120 V rated value   | 5 hp   |
| — at 230 V rated value   | 15 hp  |
| • for 3-phase AC motor   | 10 115   |
| — at 200/208 V rated value   | 20 hp  |
| — at 220/230 V rated value   | 25 hp  |
|  |  |
| at 460/490 V rated value   | bil bb   |
| — at 460/480 V rated value   | 50 hp  |
| — at 575/600 V rated value   | 60 hp  |
| — at 575/600 V rated value contact rating of auxiliary contacts according to UL  |  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection   | 60 hp  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  | 60 hp  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  | 60 hp<br>A600 / P600   |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  | 60 hp  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  | GG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch  | GO hp<br>A600 / P600<br>gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A<br>(415 V, 80 kA)<br>gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A   |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required   | G0 hp A600 / P600  gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions   | GG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)  gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  gG: 10 A (500 V, 1 kA)  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  | GC: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)  GG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  GG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions   | GC: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)  gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  gG: 10 A (500 V, 1 kA)  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  | G: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)  gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  | GG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)  gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)  gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715   |
| - at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting   | GG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes   |
| - at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting height  | GO hp A600 / P600  gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  Yes 114 mm                          |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth   | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing   | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm  |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting   | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm                                 |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards   | GG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes  114 mm 55 mm 130 mm                                |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes  114 mm 55 mm 130 mm                                |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards   | GS: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm                                 |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — downwards  — at the side   | GS: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm                                 |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes  114 mm 55 mm 130 mm  10 mm 10 mm 10 mm 10 mm       |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  | gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm  10 mm 10 mm 10 mm 10 mm        |
| — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — upwards  — forwards  — upwards  — forwards  — at the side  • for grounded parts  — forwards  — upwards  — upwards | GS: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes  114 mm 55 mm 130 mm  10 mm 10 mm 10 mm 10 mm 10 mm |

| for live parts  |   |
|---|---|
| — forwards  | 10 mm                                     |
| — upwards   | 10 mm                                     |
| — downwards   | 10 mm                                     |
| — at the side   | 6 mm                                      |
| Connections/ Terminals  |   |
| type of electrical connection   |   |
| for main current circuit     for auxiliant and control circuit  | screw-type terminals                      |
| <ul><li>for auxiliary and control circuit</li><li>at contactor for auxiliary contacts</li></ul>           | screw-type terminals Screw-type terminals |
| of magnet coil  | Screw-type terminals Screw-type terminals |
| type of connectable conductor cross-sections  | ociew-type terminals                      |
| • for main contacts   |   |
| — solid or stranded   | 2x (1 35 mm²), 1x (1 50 mm²)              |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 2x (1 25 mm²), 1x (1 35 mm²)              |
| at AWG cables for main contacts   | 2x (18 2), 1x (18 1)                      |
| connectable conductor cross-section for main  |   |
| contacts  |   |
| finely stranded with core end processing  | 1 35 mm²                                  |
| connectable conductor cross-section for auxiliary contacts  |   |
| solid or stranded   | 0.5 2.5 mm²                               |
| finely stranded with core end processing  | 0.5 2.5 mm²                               |
| type of connectable conductor cross-sections  | <u></u>                                   |
| for auxiliary contacts  |   |
| — solid or stranded   | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)       |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)       |
| <ul> <li>at AWG cables for auxiliary contacts</li> </ul>  | 2x (20 16), 2x (18 14)                    |
| AWG number as coded connectable conductor cross   |   |
| section   |   |
| • for main contacts   | 18 1                                      |
| for auxiliary contacts  | 20 14                                     |
| Safety related data   |   |
| product function  | V   |
| mirror contact according to IEC 60947-4-1      manifold to the driving progration according to IEC 60047. | Yes                                       |
| <ul> <li>positively driven operation according to IEC 60947-<br/>5-1</li> </ul>                           | No  |
| safety device type according to IEC 61508-2   | Type B                                    |
| B10 value with high demand rate according to SN 31920   | 1 000 000                                 |
| Safety Integrity Level (SIL) according to IEC 61508   | 2   |
| SIL Claim Limit (subsystem) according to EN 62061   | 2   |
| performance level (PL) according to EN ISO 13849-1  | С   |
| category according to EN ISO 13849-1  | 2   |
| stop category according to EN 60204-1   | 0   |
| Safe failure fraction (SFF)   | 96 %                                      |
| diagnostics test interval by internal test function maximum   | 28 800 s                                  |
| proportion of dangerous failures  |   |
| with low demand rate according to SN 31920  | 40 %                                      |
| with high demand rate according to SN 31920   | 73 %                                      |
| failure rate [FIT] with low demand rate according to SN   | 100 FIT                                   |
| 31920   |   |
| PFHD with high demand rate according to EN 62061  | 0.000000077 1/h                           |
| PFDavg with low demand rate according to IEC 61508  | 0.0067                                    |
| MTBF  | 52 y                                      |
| hardware fault tolerance according to IEC 61508   |   |
|   | 0   |
| T1 value for proof test interval or service life according to IEC 61508                                   | 0<br>20 y                                 |
|   |   |
| Protection class IP on the front according to IEC   | 20 y                                      |

- safety-related switching on
- safety-related switching OFF

No Yes

## Certificates/ approvals

## **General Product Approval**





Confirmation



<u>KC</u>



**Functional EMC** Safety/Safety of Machinery

**Declaration of** Conformity

**Test Certificates** 

Marine / Shipping



Type Examination Certificate



Type Test Certificates/Test Report





Marine / Shipping





Confirmation

other

Vibration and Shock

Railway

## **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=3RT2038-1SP30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1SP30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1SP30

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

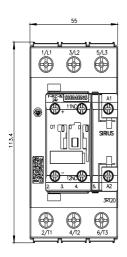
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2038-1SP30&lang=en

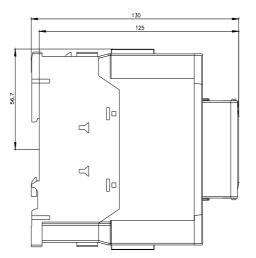
Characteristic: Tripping characteristics, I2t, Let-through current

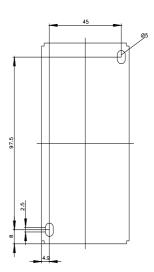
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1SP30/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1SP30&objecttype=14&gridview=view1







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