## SIEMENS

## Data sheet

## 3RT2025-1BJ80



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 72 V DC, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

| product brand name         SIRIUS           product vipe designation         Power contactor           optiduct type designation         SR12           General technical data         S0           size of contactor         No           of unction module for communication         No           auxiliary switch         Yes           optiduct extension         1.8 W           at AC in hot operating state         1.8 W           at AC in hot operating state per pole         0.6 W           of main circuit with degree of pollution 3 rated value         690 V           of main circuit with degree of pollution 3 rated value         690 V           of main circuit with degree of pollution 3 rated value         690 V           of auxiliary circuit with degree of pollution 3 rated value         690 V           of auxiliary circuit rated value         6 kV           of auxiliary circuit rated value         6 kV           or auxiliary circuit rated value         100 00 000  | 6/13  |                          |
|--|---|--------------------------|
| product type designation         3RT2           General technical data   | product brand name  | SIRIUS                   |
| General technical data         S0           size of contactor         S0           product extension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         1.8 W           • at AC in hot operating state         1.8 W           • at AC in hot operating state         5.9 W           insulation voltage         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit rated value         6 kV           • of contactor scitas according to EN 60947-1         400 V           sthock resistance with sine pulse         10g / 5 ms, 7,5g / 10 ms           • at DC         10g / 5 ms, 7,5g / 10 ms           shock resistance with sine pulse         10000 000           • of the contactor with added auxiliary swi   | product designation   | Power contactor          |
| size of contactor     S0       product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     1.8 W       • at AC in hot operating state per pole     0.6 W       • without load current share typical     5.9 W       Insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     680 V       surge voltage resistance     6kV       • of auxiliary circuit rated value     6 kV       • of auxiliary surverb holes for protective separation between     10g / 5 ms, 7,5g / 10 ms       shock resistance with sine pulse     10g / 5 ms, 7,5g / 10 ms       • at DC     15g / 5 ms, 10g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       reference code according to IEC 81346-2     Q       Substance Prohibi   | product type designation  | 3RT2                     |
| product extension         No           • function module for communication         No           • auxiliary switch         Yes           • auxiliary switch         Yes           • at AC in hot operating state         1.8 W           • at AC in hot operating state pole         0.6 W           • without load current share typical         5.9 W           Insulation voltage         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit with degree of pollution 3 rated value         64 V           • of main circuit rated value         6 kV           • of main circuit rated value         6 kV           • of main circuit rated value         6 kV           • of auxiliary circuit rated value         6 kV           • of contactor scircit rate value         100 00 000           • at DC         100 000 000   | General technical data  |                          |
| • function module for communicationNo• auxiliary switchYespower loss [W] for rated value of the current  | size of contactor   | SO                       |
| • auxiliary switchYespower loss [W] for rated value of the current   | product extension   |                          |
| power loss [W] for rated value of the current  | <ul> <li>function module for communication</li> </ul>                           | No                       |
| • at AC in hot operating state per pole1.8 W• at AC in hot operating state per pole0.6 W• without load current share typical0.6 W• of main circuit with degree of pollution 3 rated value690 V• of main circuit rated value68 V• of main circuit rated value6 kV• of main circuit rated value6 kV• of auxiliary circuit rated value6 kV• of main circuit rated value6 kV• of auxiliary circuit rated value6 kV• of contactor typical100 V• at DC10g / 5 ms, 7,5g / 10 ms• of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical1001/2009Aubient conditions2000 mambient conditions-55 +60 °C• of uning storage-55 +60 °C <th>auxiliary switch</th> <th>Yes</th>   | auxiliary switch  | Yes                      |
| • at AC in hot operating state per pole0.6 W• without load current share typical5.9 Winsulation voltage690 V• of main circuit with degree of pollution 3 rated value690 V• of main circuit with degree of pollution 3 rated value690 V• of main circuit rated value690 V• of main circuit rated value690 V• of auxiliary circuit rated value64 V• of auxiliary circuit rated value690 V• of auxiliary circuit rated value64 V• of auxiliary circuit rated value64 V• of auxiliary circuit rated value64 V• of auxiliary circuit rated value100 V• ot DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of uning operation200 mambient conditions2 000 m• uning operation-25 +60 °C• during storage<  | power loss [W] for rated value of the current                                   |                          |
| without load current share typical     without load current share typical     without load current share typical     if sullation 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 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 contrated value     of auxiliary service bioperton     auxiliary service bioperton     of contactor 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 auxiliary switch block typical     of 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 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 typical | <ul> <li>at AC in hot operating state</li> </ul>                                | 1.8 W                    |
| insulation voltage       690 V         of main circuit with degree of pollution 3 rated value       690 V         of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         of main circuit rated value       6 kV         of auxiliary circuit rated value       6 kV         auxiliary circuit rated value       6 kV         of auxiliary circuit rated value       6 kV         auxiliary circuit rated value       6 kV         auxiliary circuit rated value       6 kV         at DC       100 V         shock resistance with sine pulse       10 g/ 5 ms, 7,5g / 10 ms         of contactor typical       10 000 000         auxiliary switch block typical       10 000 000         of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient temperature       -25 +60 °C <th><ul> <li>at AC in hot operating state per pole</li> </ul></th> <th>0.6 W</th>   | <ul> <li>at AC in hot operating state per pole</li> </ul>                       | 0.6 W                    |
| • of main circuit with degree of pollution 3 rated value690 V• of auxiliary circuit with degree of pollution 3 rated value690 V• surge voltage resistance•• of main circuit rated value6 kV• of auxiliary circuit rated value6 kV• of auxiliary circuit rated value6 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between<br>coll and main contacts according to EN 60947-1400 V• shock resistance at rectangular impulse<br>• at DC10g / 5 ms, 7,5g / 10 ms• at DC10g / 5 ms, 7,5g / 10 ms• of contactor typical10 000 000• of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2000 m• of the contactor with added auxiliary switch block typical2000 m• of the contactor with added auxiliary switch block typical2000 m• of the contactor with added auxiliary switch block typical2000 m• of the contactor with added auxiliary switch block typical2000 m• of the contactor with addeelectory <th><ul> <li>without load current share typical</li> </ul></th> <th>5.9 W</th>  | <ul> <li>without load current share typical</li> </ul>                          | 5.9 W                    |
| of auxiliary circuit with degree of pollution 3 rated value690 Vsurge voltage resistance-of main circuit rated value6 kVof main circuit rated value6 kVof auxiliary circuit rated value6 kVcol auxiliary circuit rated value600 Vmaximum permissible voltage for protective separation between400 Vshock resistance at rectangular impulse-at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse-at DC15g / 5 ms, 10g / 10 msmechanical service life (operating cycles)-of contactor typical10 000 000of the contactor with added electronically optimized5000 000auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical2000 mambient conditions2000 mambient temperature25 +60 °Cof during storage-25 +60 °Ciduring storage-25 +60 °Celative hundity minum10 %95 %55 % Saccording to IEC 60068-2-30   | insulation voltage  |                          |
| surge voltage resistance       6         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at DC       10g / 5 ms, 7,5g / 10 ms         shock resistance with sine pulse       15g / 5 ms, 10g / 10 ms         • at DC       15g / 5 ms, 10g / 10 ms         mechanical service life (operating cycles)       00000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         ambient temperature       -25 +60 °C         • during storage       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         95 %       95 %   | <ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>      | 690 V                    |
| • of main circuit rated value6 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between<br>coil and main contacts according to EN 60947-1400 Vshock resistance at rectangular impulse10g / 5 ms, 7,5g / 10 ms• at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse<br>• at DC15g / 5 ms, 10g / 10 ms• at DC15g / 5 ms, 10g / 10 msmechanical service life (operating cycles)<br>• of contactor typical000000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical00 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical00 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added electronically optimized<br>auxiliary solution attitude at height above sea level maximum2 000 mInstallation attitude at height above sea level maximum2 000 m• during operation<br>• during operation<br>• during storage-25 +60 °C• during storage-25 +60 °C• relative humidity at 55 °C according to IEC 60068-2-30<br>maximum10 % </th <th><ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul></th> <th>690 V</th>  | <ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul> | 690 V                    |
| • of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between<br>coll and main contacts according to EN 60947-1400 Vshock resistance at rectangular impulse<br>• at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse<br>• at DC10g / 5 ms, 7,5g / 10 mse at DC15g / 5 ms, 10g / 10 msmechanical service life (operating cycles)<br>• of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2 000 m• of the contactor with addee auximum2 000 mauxiliary auxing aperation-25 +60 °C• during operation-25 +60 °C• during storage-55 +80 °C• relative humidity minimum10 %95 %95 %  | surge voltage resistance  |                          |
| maximum permissible voltage for protective separation between<br>coil and main contacts according to EN 60947-1400 Vshock resistance at rectangular impulse<br>• at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse<br>• at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse<br>• at DC10g / 5 ms, 10g / 10 msmechanical service life (operating cycles)<br>• of contactor typical0000000of contactor typical<br>• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2<br>Substance Prohibitance (Date)QMileint conditions2000 mambient temperature<br>• during operation<br>• during storage2000 menablemt temperature<br>• during storage-25 +60 °C<br>-55 +80 °Cenablemt temperature<br>• during storage-25 +80 °Cenablemt temperature<br>• Battive humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %   | <ul> <li>of main circuit rated value</li> </ul>                                 | 6 kV                     |
| coil and main contacts according to EN 60947-1       indext resistance at rectangular impulse         • at DC       10g / 5 ms, 7,5g / 10 ms         shock resistance with sine pulse       isg / 5 ms, 10g / 10 ms         • at DC       15g / 5 ms, 10g / 10 ms         mechanical service life (operating cycles)       is 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 0/01/2009         Ambient conditions       2 000 m         • during operation       -25 +60 °C         • during storage   | <ul> <li>of auxiliary circuit rated value</li> </ul>                            | 6 kV                     |
| • at DC10g / 5 ms, 7,5g / 10 msshock resistance with sine pulse<br>• at DC15g / 5 ms, 10g / 10 msmechanical service life (operating cycles)<br>• of contactor typical10 000 000• of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2000 m• of the contactor with added auxiliary switch block typical10/01/2009• of the contactor with added auxiliary switch block typical2 000 m• of the contactor with addee auxiliary switch block typical10/01/2009• of the contactor with addee auxiliary switch block typical2 000 m• ambient conditions2 000 m• ambient temperature<br>• during operation<br>• during storage-25 +60 °C• during storage<br>relative humidity minimum10 %• felative humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %  |   | 400 V                    |
| shock resistance with sine pulse       15g / 5 ms, 10g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • 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 %  | shock resistance at rectangular impulse   |                          |
| • at DC15g / 5 ms, 10g / 10 msmechanical service life (operating cycles)10 000 000• of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical0• of the contactor with added auxiliary switch block typical2• of the contactor with added auxiliary switch block typical2• of the contactor with added auxiliary switch block typical-25 +60  | • at DC   | 10g / 5 ms, 7,5g / 10 ms |
| mechanical service life (operating cycles)       10 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       5 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         aubient temperature       -25 +60 °C         • 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 %  | shock resistance with sine pulse  |                          |
| • of contactor typical10 000 000• of the contactor with added electronically optimized<br>auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature<br>• during operation-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %  | • at DC   | 15g / 5 ms, 10g / 10 ms  |
| • of the contactor with added electronically optimized<br>auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature<br>• during operation<br>• during storage-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %   | mechanical service life (operating cycles)                                      |                          |
| auxiliary switch block typicalI 0 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature-25 +60 °C• during storage-25 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %   | <ul> <li>of contactor typical</li> </ul>  | 10 000 000               |
| reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature<br>• during operation<br>• during storage-25 +60 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30<br>maximum95 %  |   | 5 000 000                |
| Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • 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 maximum       95 %  | <ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>  | 10 000 000               |
| Ambient conditions         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • 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 maximum       95 %   | reference code according to IEC 81346-2   | Q                        |
| installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • 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 maximum       95 %  | Substance Prohibitance (Date)   | 10/01/2009               |
| ambient temperature     -25       • during operation     -25       • during storage     -55       relative humidity minimum     10 %       relative humidity at 55 °C according to IEC 60068-2-30 maximum     95 %   | Ambient conditions  |                          |
| • 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 maximum     95 %   | installation altitude at height above sea level maximum                         | 2 000 m                  |
| • during storage     -55 +80 °C       relative humidity minimum     10 %       relative humidity at 55 °C according to IEC 60068-2-30 maximum     95 %   | ambient temperature   |                          |
| relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %   | during operation  | -25 +60 °C               |
| relative humidity at 55 °C according to IEC 60068-2-30 95 %  | during storage  | -55 +80 °C               |
| maximum  | relative humidity minimum   | 10 %                     |
| Main circuit   |   | 95 %                     |
|  | Main circuit  |                          |
| number of poles for main current circuit 3   | 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</li> </ul>  | 40 A               |
| value  |                    |
| • at AC-1  |                    |
| — up to 690 V at ambient temperature 40 °C rated<br>value  | 40 A               |
| — up to 690 V at ambient temperature 60 °C rated   | 35 A               |
| value  |                    |
| • at AC-3  |                    |
| — at 400 V rated value   | 17 A               |
| — at 500 V rated value   | 17 A               |
| — at 690 V rated value   | 13 A               |
| • at AC-3e   |                    |
| — at 400 V rated value   | 17 A               |
| — at 500 V rated value   | 17 A               |
| — at 690 V rated value   | 13 A               |
| • at AC-4 at 400 V rated value   | 15.5 A             |
| at AC-5a up to 690 V rated value   | 35.2 A             |
| • at AC-5b up to 400 V rated value   | 14.1 A             |
| • at AC-6a   |                    |
| — up to 230 V for current peak value n=20 rated value  | 11.4 A             |
| — up to 400 V for current peak value n=20 rated value  | 11.4 A             |
| — up to 500 V for current peak value n=20 rated value  | 11.4 A             |
| <ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>  | 11.3 A             |
|  | 7.6 A              |
| <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> </ul> | 7.6 A              |
| — up to 500 V for current peak value n=30 rated value  | 7.6 A              |
| — up to 690 V for current peak value n=30 rated value  | 7.6 A              |
| minimum cross-section in main circuit at maximum AC-1 rated  | 10 mm <sup>2</sup> |
| value  |                    |
| operational current for approx. 200000 operating cycles at AC-4  |                    |
| at 400 V rated value   | 7.7 A              |
| at 690 V rated value   | 7.7 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             |
| • with 2 current paths in series at DC-1   |                    |
| — at 24 V rated value  | 35 A               |
| — at 60 V rated value  | 35 A               |
| — at 110 V rated value   | 35 A               |
| — at 220 V rated value   | 5 A                |
| — at 440 V rated value   | 1 A                |
| — at 600 V rated value   | 0.8 A              |
| <ul> <li>with 3 current paths in series at DC-1</li> </ul>   |                    |
| — at 24 V rated value  | 35 A               |
| — at 60 V rated value  | 35 A               |
| — at 110 V rated value   | 35 A               |
| — at 220 V rated value   | 35 A               |
| — at 440 V rated value   | 2.9 A              |
| — at 600 V rated value   | 1.4 A              |
| <ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>  |                    |

| — at 24 V rated value   | 20 A  |  |  |  |
|---|---|--|--|--|
| — at 60 V rated value   | 5 A   |  |  |  |
| — at 110 V rated value  | 2.5 A   |  |  |  |
| — at 220 V rated value  | 1A  |  |  |  |
| — 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 220 V rated value  | 3 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   | 35 A  |  |  |  |
| — at 60 V rated value   | 35 A  |  |  |  |
| — at 110 V rated value  | 35 A  |  |  |  |
| — at 220 V rated value  | 10 A  |  |  |  |
| — at 440 V rated value  | 0.6 A   |  |  |  |
| — at 600 V rated value  | 0.6 A   |  |  |  |
| operating power   |   |  |  |  |
| <ul> <li>at AC-2 at 400 V rated value</li> </ul>                      | 7.5 kW  |  |  |  |
| ● at AC-3   |   |  |  |  |
| — at 230 V rated value  | 4 kW  |  |  |  |
| — at 400 V rated value  | 7.5 kW  |  |  |  |
| — at 500 V rated value  | 7.5 kW  |  |  |  |
| — at 690 V rated value  | 11 kW   |  |  |  |
| • at AC-3e  |   |  |  |  |
| — at 230 V rated value  | 4 kW  |  |  |  |
| — at 400 V rated value  | 4.5 kW  |  |  |  |
| — at 500 V rated value  | 7.5 kW  |  |  |  |
| — at 690 V rated value  | 11 kW   |  |  |  |
| operating power for approx. 200000 operating cycles at AC-            |   |  |  |  |
|   |   |  |  |  |
| • at 400 V rated value  | 3.5 kW  |  |  |  |
| at 690 V rated value  | 6 kW  |  |  |  |
| operating apparent power at AC-6a                                     |   |  |  |  |
| • up to 230 V for current peak value n=20 rated value                 | 4.5 kVA   |  |  |  |
| • up to 400 V for current peak value n=20 rated value                 | 7.8 kVA   |  |  |  |
| • up to 500 V for current peak value n=20 rated value                 | 9.9 kVA   |  |  |  |
| • up to 690 V for current peak value n=20 rated value                 | 13.6 kVA  |  |  |  |
| operating apparent power at AC-6a                                     | 011/4   |  |  |  |
| • up to 230 V for current peak value n=30 rated value                 | 3 kVA   |  |  |  |
| • up to 400 V for current peak value n=30 rated value                 | 5.2 kVA   |  |  |  |
| • up to 500 V for current peak value n=30 rated value                 | 6.6 kVA   |  |  |  |
| up to 690 V for current peak value n=30 rated value                   | 9.1 kVA   |  |  |  |
| short-time withstand current in cold operating state up to 40 °C      |   |  |  |  |
| <ul> <li>limited to 1 s switching at zero current maximum</li> </ul>  | 225 A; Use minimum cross-section acc. to AC-1 rated value |  |  |  |
| <ul> <li>limited to 5 s switching at zero current maximum</li> </ul>  | 225 A; Use minimum cross-section acc. to AC-1 rated value |  |  |  |
| <ul> <li>limited to 10 s switching at zero current maximum</li> </ul> | 189 A; Use minimum cross-section acc. to AC-1 rated value |  |  |  |
| <ul> <li>limited to 30 s switching at zero current maximum</li> </ul> | 140 A; Use minimum cross-section acc. to AC-1 rated value |  |  |  |
| <ul> <li>limited to 60 s switching at zero current maximum</li> </ul> | 115 A; Use minimum cross-section acc. to AC-1 rated value |  |  |  |
| no-load switching frequency   |   |  |  |  |
| • at DC   | 1 500 1/h   |  |  |  |
| operating frequency   |   |  |  |  |
| • at AC-1 maximum   | 1 000 1/h   |  |  |  |
| • at AC-2 maximum   | 1 000 1/h   |  |  |  |
| • at AC-3 maximum   | 1 000 1/h   |  |  |  |
| <ul> <li>at AC-3e maximum</li> </ul>                                  | 1 000 1/h   |  |  |  |
| ● at AC-4 maximum   | 300 1/h   |  |  |  |

| Control circuit/ Control   |   |
|--|---|
| type of voltage of the control supply voltage                        | DC  |
| control supply voltage at DC   |   |
| rated value  | 72 V  |
| operating range factor control supply voltage rated value of         |   |
| magnet coil at DC  |   |
| • initial value  | 0.8   |
| <ul> <li>full-scale value</li> </ul>                                 | 1.1   |
| closing power of magnet coil at DC                                   | 5.9 W   |
| holding power of magnet coil at DC                                   | 5.9 W   |
| closing delay  |   |
| • at DC  | 50 170 ms                                       |
| opening delay  |   |
| • at DC  | 15 18 ms  |
| arcing time  | 10 10 ms  |
| control version of the switch operating mechanism                    | Standard A1 - A2                                |
| Auxiliary circuit  |   |
| number of NC contacts for auxiliary contacts instantaneous contact   | 1   |
| number of NO contacts for auxiliary contacts instantaneous contact   | 1   |
| operational current at AC-12 maximum                                 | 10 A  |
| operational current at AC-15   |   |
| ● at 230 V rated value   | 10 A  |
| • at 400 V rated value   | 3 A   |
| • 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   |
| <ul> <li>at 125 V rated value</li> </ul>                             | 2 A   |
| • at 220 V rated value   | 1 A   |
| • at 600 V rated value   | 0.15 A  |
| operational current at DC-13   |   |
| • at 24 V rated value  | 10 A  |
| • at 48 V rated value  | 2 A   |
| • at 60 V rated value  | 2 A   |
| • at 110 V rated value   | 1 A   |
| <ul> <li>at 125 V rated value</li> </ul>                             | 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   | 14 A  |
| • at 600 V rated value   | 17 A  |
| yielded mechanical performance [hp]                                  |   |
| • for single-phase AC motor  |   |
| — at 110/120 V rated value   | 1 hp  |
| — at 230 V rated value   | 3 hp  |
| • for 3-phase AC motor   |   |
| — at 200/208 V rated value   | 3 hp  |
| — at 220/230 V rated value   | 5 hp  |
| — at 460/480 V rated value   | 10 hp   |
| — at 575/600 V rated value   | 15 hp   |
| contact rating of auxiliary contacts according to UL                 | A600 / P600                                     |
| Short-circuit protection   |   |
| design of the fuse link  |   |
| <ul> <li>for short-circuit protection of the main circuit</li> </ul> |   |

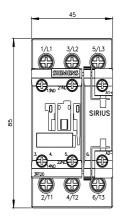
| — with type of coordination 1 required  | gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)  |  |  |
|---|--|--|--|
| - with type of assignment 2 required  | gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)  |  |  |
| <ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>   | 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   |  |  |
| <ul> <li>side-by-side mounting</li> </ul>   | Yes  |  |  |
| height  | 85 mm  |  |  |
| width   | 45 mm  |  |  |
| depth   | 107 mm   |  |  |
| required spacing  |  |  |  |
| <ul> <li>with side-by-side mounting</li> </ul>  |  |  |  |
| — forwards  | 10 mm  |  |  |
| — upwards   | 10 mm  |  |  |
| — downwards   | 10 mm  |  |  |
| — at the side   | 0 mm   |  |  |
| <ul> <li>for grounded parts</li> </ul>  |  |  |  |
| — forwards  | 10 mm  |  |  |
| — upwards   | 10 mm  |  |  |
| — at the side   | 6 mm   |  |  |
| — downwards   | 10 mm  |  |  |
| • for live parts  |  |  |  |
| — forwards  | 10 mm  |  |  |
| — upwards   | 10 mm  |  |  |
| — downwards   | 10 mm  |  |  |
| — at the side   | 6 mm   |  |  |
| Connections/ Terminals  |  |  |  |
| type of electrical connection   |  |  |  |
| <ul> <li>for main current circuit</li> </ul>  | screw-type terminals   |  |  |
| <ul> <li>for auxiliary and control circuit</li> </ul>   | screw-type terminals   |  |  |
| <ul> <li>at contactor for auxiliary contacts</li> </ul>   | Screw-type terminals   |  |  |
| of magnet coil  | Screw-type terminals   |  |  |
| type of connectable conductor cross-sections for main contacts  |  |  |  |
| • solid   | 2x (1 2.5 mm²), 2x (2.5 10 mm²)  |  |  |
| <ul> <li>solid or stranded</li> </ul>   | 2x (1 2.5 mm²), 2x (2.5 10 mm²)  |  |  |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  |  |  |
| connectable conductor cross-section for main contacts   |  |  |  |
| • solid   | 1 10 mm²   |  |  |
| ● stranded  | 1 10 mm²   |  |  |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 1 10 mm²   |  |  |
| connectable conductor cross-section for auxiliary contacts  |  |  |  |
| <ul> <li>solid or stranded</li> </ul>   | 0.5 2.5 mm <sup>2</sup>  |  |  |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 0.5 2.5 mm <sup>2</sup>  |  |  |
| type of connectable conductor cross-sections  |  |  |  |
| <ul> <li>for auxiliary contacts</li> </ul>  |  |  |  |
| — 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>for AWG cables for auxiliary contacts</li> </ul>   | 2x (20 16), 2x (18 14)   |  |  |
| AWG number as coded connectable conductor cross   |  |  |  |
| section   | 16 9   |  |  |
| for main contacts   | 168<br>20 14   |  |  |
| for auxiliary contacts  | 20 14  |  |  |
| Safety related data   |  |  |  |
| product function  | Vec  |  |  |
| <ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>   | Yes  |  |  |
|   | 450.000  |  |  |
| B10 value with high demand rate according to SN 31920   | 450 000  |  |  |
| B10 value with high demand rate according to SN 31920<br>proportion of dangerous failures   |  |  |  |
| B10 value with high demand rate according to SN 31920<br>proportion of dangerous failures<br>• with low demand rate according to SN 31920 | 40 %   |  |  |
| B10 value with high demand rate according to SN 31920<br>proportion of dangerous failures   |  |  |  |

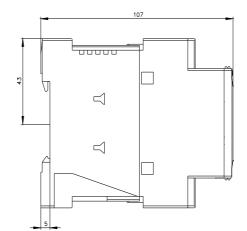
|   | t interval or service life acco  | rding to IEC 20 a      |                               |  |                               |  |
|---|--|------------------------|-------------------------------|--|-------------------------------|--|
| 61508<br>protection class IP on the front according to IEC 60529  |  | EC 60529 IP20          | IP20                          |  |                               |  |
| -   | the front according to IEC   |                        | er-safe, for vertical contact | from the front                                 |                               |  |
| suitability for use   |  |                        |                               |  |                               |  |
| <ul> <li>safety-related s</li> </ul>  | witching OFF   | Yes                    |                               |  |                               |  |
| Certificates/ approvals   | 5  |                        |                               |  |                               |  |
| General Product Ap  | proval   |                        |                               |  |                               |  |
| •   | •  |                        |                               |  |                               |  |
| (SP)  |  | <u>Confirmation</u>    |                               | <u>KC</u>                                      | EHC                           |  |
| EMC   | Functional<br>Safety/Safety of Ma-<br>chinery  | Declaration of Confo   | rmity                         | Test Certificates                              |                               |  |
|   | <u>Type Examination Cer-</u><br>tificate   | CE<br>EG-Konf.         | UK<br>CA                      | <u>Type Test Certific-</u><br>ates/Test Report | Special Test Certific-<br>ate |  |
| Marine / Shipping   |  |                        |                               |  |                               |  |
| ABS   | BUREAU<br>VERITAS  |                        | Lloyd's<br>Register<br>uis    | RINA   | RMRS                          |  |
| other   |  | Railway                | Dangerous Good                | Environment                                    |                               |  |
| Confirmation  |  | Vibration and Shock    | Transport Information         | Environmental Con-<br>firmations               |                               |  |
| urther information  |  |                        |                               |  |                               |  |
|   | d to exit the Russian marl   |                        | ssian-husiness                |  |                               |  |
| Siemens is working  | on the renewal of the curr   | ent EAC certificates.  |                               | d to impose on offersta                        |                               |  |
|   | ocal Siemens office on the s<br>(other than the sanctioned E   |                        |                               | a to import or otter to supp                   | ny mese products to ar        |  |
| Information on the p  | ackaging   |                        | ,                             |  |                               |  |
|   | <u>y.siemens.com/cs/ww/en/vi</u><br>wnloadcenter (Catalogs, E<br>com/ic10  |                        |                               |  |                               |  |
| Industry Mall (Online   |  | alog/product?mlfb=3RT2 | <u>025-1BJ80</u>              |  |                               |  |
| Cax online generator<br>http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1BJ80 |  |                        |                               |  |                               |  |
| Service&Support (M  | anuals, Certificates, Char<br>y.siemens.com/cs/ww/en/p   | acteristics, FAQs,)    | <u>-enamin=3k12025-18380</u>  | 1  |                               |  |
| Image database (pro   | oduct images, 2D dimension signature of the second se | on drawings, 3D model  | s, device circuit diagrams    | s, EPLAN macros,)                              |                               |  |

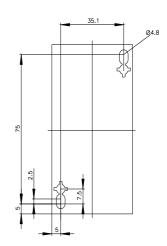
http://www.automation.siemens.com/bilddb/cax\_de.aspx/mitb=orcla Characteristic: Tripping characteristics, 1<sup>2</sup>t, Let-through current

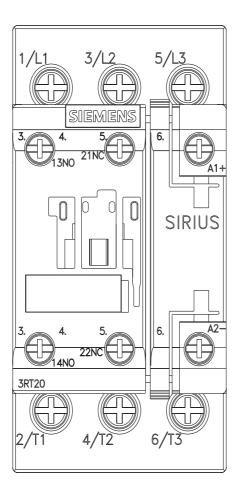
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1BJ80/char

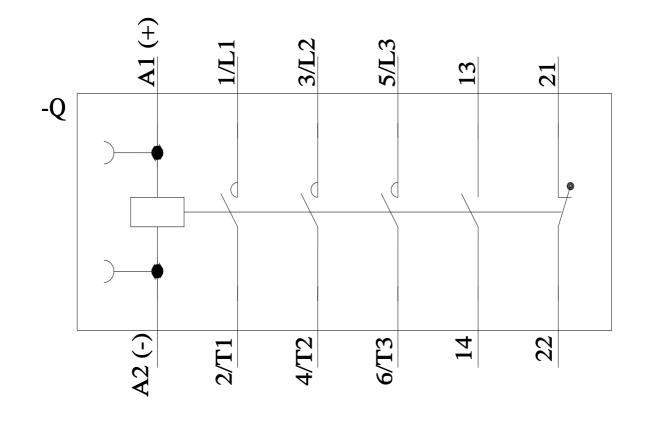
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1BJ80&objecttype=14&gridview=view1











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