## SIEMENS

## Data sheet

## 3RF2130-1AA42



Semiconductor relay, 1-phase 3RF2 Overall width 22.5 mm, 30 A 24-230 V / 4-30 V DC screw terminal

| product brand name  | SIRIUS   |
|---|--|
| product designation   | solid-state relay  |
| design of the product   | single-phase   |
| product type designation  | 3RF21  |
| manufacturer's article number   |  |
| <ul> <li>_1 of the accessories that can be ordered</li> </ul>                                 | <u>3RF2900-3PA88</u>                                       |
| <ul> <li>_2 of the accessories that can be ordered</li> </ul>                                 | <u>3RF2950-0HA13</u>                                       |
| <ul> <li>_3 of the accessories that can be ordered</li> </ul>                                 | <u>3RF2900-0EA18</u>                                       |
| <ul> <li>_4 of the accessories that can be ordered</li> </ul>                                 | <u>3RF2950-0GA13</u>                                       |
| <ul> <li>_5 of the accessories that can be ordered</li> </ul>                                 | <u>3RF2920-0FA08</u>                                       |
| product designation   |  |
| <ul> <li>_1 of the accessories that can be ordered</li> </ul>                                 | terminal cover   |
| <ul> <li>_2 of the accessories that can be ordered</li> </ul>                                 | power regulator  |
| <ul> <li>_3 of the accessories that can be ordered</li> </ul>                                 | converter  |
| <ul> <li>_4 of the accessories that can be ordered</li> </ul>                                 | load monitoring  |
| <ul> <li>_5 of the accessories that can be ordered</li> </ul>                                 | load monitoring, basis                                     |
| General technical data  |  |
| product function  | zero-point switching                                       |
| power loss [V·A] maximum  | 44.2 VA  |
| power loss [W] for rated value of the current   |  |
| <ul> <li>at AC in hot operating state</li> </ul>  | 44.2 W   |
| <ul> <li>at AC in hot operating state per pole</li> </ul>                                     | 44.2 W   |
| <ul> <li>without load current share typical</li> </ul>  | 0.5 W  |
| insulation voltage rated value  | 600 V  |
| type of voltage   |  |
| <ul> <li>of the operating voltage</li> </ul>  | AC   |
| <ul> <li>of the control supply voltage</li> </ul>   | DC   |
| surge voltage resistance of main circuit rated value  | 6 kV   |
| shock resistance according to IEC 60068-2-27  | 15g / 11 ms  |
| vibration resistance according to IEC 60068-2-6   | 2g   |
| reference code according to DIN 40719 extended according<br>to IEC 204-2 according to IEC 750 | К  |
| reference code according to EN 61346-2  | Q  |
| reference code according to IEC 81346-2   | Q  |
| Substance Prohibitance (Date)   | 05/28/2009   |
| SVHC substance name   | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8 |
| Main circuit  |  |
| number of poles for main current circuit  | 1  |
| number of NO contacts for main contacts   | 1  |
| number of NC contacts for main contacts   | 0  |

| operating voltage         24         230 V           - at 00 Hz mado value         24         230 V           - at 00 Hz mado value         24         200 V           - at 00 Hz mado value         24         200 V           - at 00 Hz mado value         24         200 V           - at 00 Hz         20         200 Hz           - at 00 Hz         20         200 V           - at 00 Hz         20         20           - at 00 Hz         20         20           - at 00 Hz         20         20  | tune of voltage of the energing voltage                                    |                                       |
|---|--|---------------------------------------|
| • a. A.C.2420 V   | type of voltage of the operating voltage                                   | AC                                    |
|   |  |                                       |
| − − − 0 0 12 rates value         24 − 200 ∨           operating frequency value value         60 + 00 trained value           operating range relative to the operating requency         10 ∧ 0           • • • • 0 0 trained value         20 − 205 ∨           • • • • • • • • • • • • • • • • • • •  |  | 04 000 V                              |
| operating requency rated value         90   |  |                                       |
| initial control of the operating requency         10 %           operating range relative to the operating voltage at AC         20253 V           iiii 60 Hz         20253 V           iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii  |  |                                       |
| operating range relative to the operating voltage at AC         20.253 V           • at 50 Hz         20.253 V           • at 50 Hz         20.253 V           • at 60 Hz         20.253 V           • at 60 Hz         30 A           operational current minimum         500 m/A           operational current minimum         500 m/A           maximum permissible         800 V           maximum permissible         800 V           maximum permissible         800 V           everse current of the thyristor for main contacts         800 V           maximum permissible         40.°C           Veps of voltage at the control supply voltage         DC           control supply voltage 1 D C         -           outrol supply voltage 1 D C         -           • at 1D C Initial value for signal <0 detection  |  |                                       |
| • at 50 Hz20253 V• at 60 Hz20253 V• at 60 Hz30 A• at 60 Hz50 M/µz• at 60 Hz50 Mz• at 60 Hz   |  | 10 %                                  |
| • al 80 Hz20 253 Voperational current30 A• al ACS 1 tabel value30 Aaccording to LL 50 stabel value30 Aoperational current minimum500 mAoperational current minimum500 mAoperational current minimum500 mAinter of vvalues for at the thyristor for main contacts800 V µamaximum permissible600 mAinter of vvalues pat the thyristor40 °Csurge current resistance rated value300 Asurge current resistance rated value300 ASurge of voltage of the control supply voltageCoctrol supply voltage 1 at DCCoctrol supply voltage 1 at DC0octrol supply voltage 1 at DC10 mAoctrol current at DC rabed value10 mAoctrol current at DC rabed value <td< td=""><td></td><td></td></td<>  |  |                                       |
| operational current         30 A           • a AC-Sf I rated value         30 A           • a concering to UL 300 rated value         30 A           ampactly maximum         500 mA           operational current minimum         500 mA           rate of voltage rise at the thyristor for main contacts         500 V/us           maximum permissible         500 V/us           blocking voltage at the thyristor for main contacts         800 V           maximum permissible         90 ° C           devalue maximum         40 ° C           devalue maximum         500 MA           devalue maximum permissible         90 ° C           devalue maximum permissible         500 MA           control supply voltage 1 DC         60 ° C           e at DC risial value for signal <1> detaction         4 V           e at DC risial value for signal <1> detaction         4 V           e at DC risial value for signal <1> detaction         1 V           control supply voltage         1 SmA           control supply voltage         1 SmA           control supply voltage 1 max additionally max. one half-wave           OFF-detay time         1 sma           op 1 mumber of NC contacts for auxillary contacts         0           number of NC contacts for auxillary contacts <td></td> <td></td>  |  |                                       |
| i eta C-51 rate value30 A• excording to UL 505 rate value30 Aoperational current minimum500 mAoperational current minimum500 mAi eta of voltage at the thyristor for main contacts800 Vulusmaximum permissible900 Vulusmaximum permissible900 Vulusmaximum permissible900 Vulusmaximum permissible900 Vulusderating temperature40 °Csurge current resistance rated value400 Aderating temperature900 A(type of voltage of the control supply voltageDCoctorido supply voltage0• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise40 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C• at ID C Initial value for signal <1> otherwise10 °C <td></td> <td>20 253 V</td>   |  | 20 253 V                              |
| • according to UL 508 rated value30 Åampactly maximum500 mAoperational current minimum500 mArate of voltage rise at the thyristor for main contacts<br>maximum permissible500 Vijablocking voltage at the thyristor for main contacts<br>maximum permissible600 Vderating temperature40 °Csurge current resistance rated value300 Åsurge current resistance rated value300 Åsurge current resistance rated value300 Åsurge current resistance rated value300 Åcontrol surphy voltage0control surphy voltage0control surphy voltage0control surphy voltage 1 at DC0control surphy voltage10 %- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnin4 V- at DC Initial value for signal <1> detechnic5 mA- at DC Initial value for signal <1> detechnic5 mA- at DC Initial value for signal <1> detechnic5 mA </td <td></td> <td></td>  |  |                                       |
| ampacity maximum         30 Å           operational current minimum         500 mÅ           and overage fies at the thyristor for main contacts         500 Vijis           maximum permissible         500 Vijis           maximum permissible         500 Vijis           maximum permissible         500 Vijis           reverse current of the thyristor for main contacts         500 Vijis           maximum permissible         40 °C           surge current resistance rated value         300 Å           Edit was the thyristor         400 Å*s           Control stupply voltage of the control supply voltage         DC           control supply voltage of the control supply voltage         0 V           • intel value for signal <1> obtection         4 V           • intel value for signal <1> obtection         4 V           • into control supply voltage         -           • into contrestor supplity cont   |  |                                       |
| operational current minimum         500 mÅ           rate of voltage rise at the thyristor for main contacts         500 V/µs           maximum permissible         600 V           Incording or sage at the thyristor for main contacts         600 V           maximum permissible         600 V           everse current of the thyristor         10 mÅ           derating temporatur         40 °C           surge current resistance rated value         300 Å           Evalue maximum permissible         300 Å           Control circult/Control         V           e rated value maximum permissible         30 V           - rated value maximum permissible         4 30 V           - rated value maximum permissible         4 30 V           - rated value maximum permissible         10 mÅ           - al D C filescie value for signal <1> detection         4.V           - al D C filescie value for signal <1> detection         4.V           - al D C filescie value for signal <1> detection         1.V           Control current at minimum control supply voltage         1.a. mA           cont of current at D crated value         1.5 mA           ON-delay time         1.ms; additionally max, one half-wave           OPF-dolg time         1.5 kM           number of NC contacts for auxillary  |  |                                       |
| rate of voltage rise at the thyristor for main contacts<br>maximum permissible         500 V/µs           blocking voltage at the thyristor for main contacts<br>maximum permissible         800 V           reverse current of the thyristor         10 mA           derating temperature         40 °C           surge current resistance rate value         300 A           EX value maximum         450 A*s           Control direcult/Control         V           type of voltage of the control supply voltage         DC           control direcult/Control         V           type of voltage of the control supply voltage         DC           control direcult/Control         40 °C           type of voltage of the control supply voltage         0 V           - it to C fullad value for signal <1-5 detection   | · · ·  |                                       |
| maximum primisable         indication of the layors of main contacts           maximum permissible         00 V           derating temperature         40 °C           surge current resistance rated value         300 A           Et value maximum         00 V           Surge current resistance rated value         300 A           Control supply voltage t at DC         U           - ented value maximum permissible         00 V           - ented value maximum permissible         30 V           - ented value maximum permissible         4 V           - ented value maximum permissible         30 V           - ented value maximum permissible         4 V           - ented value maximum permissible         10 mA           - ented value maximu permissible         4 V           - ented value maximum permissible         10 mA           - ented value maximu permissible         10 mA           - ented value maximum permissible         10 V           - ented value maximum permissible         10 MA           - ented value maximum permissible         10 MA           - ented value maximum permissible         10 MA           - ented value         13 mA           - ented value         15 mA           ON-delay time         10 ma   | •  |                                       |
| maximum permissible         in mA           derating temperature         40 °C           surge current resistance rated value         300 A           28 value maximum         450 A*s           Control afreuit/ Control         000 A           Control afreuit/ Control         000 A           Control afreuit/ Control         000 A           Control supply voltage         000 A           e and Control supply voltage         100 A           e and Control supply voltage         100 A           e and Control supply voltage         100 A           control current at uninnum control supply voltage         100 A           a trad value         100 A           Auxiliary circue         100 A           Auxiliary circue         100 A           number of NC contacts for auxiliary contacts   |  | 500 V/µs                              |
| derating temperature     40 °C       surge current resistance rated value     300 Å       Et value maximum     450 Å*s       Control circuit/ Control   |  | 800 V                                 |
| surge current resistance rated value surge current resistance rated value 300 A 2d value maximum 450 A*s Control Control Ed value maximum permissible or rated value maximum or recorded maximum permissible or rated value for signal <1> detection or rate permissible or rated value for signal <1> detection or recorded maximum permissible or rated value for signal <1> detection or recorded maximum or recorded value or rate or recorded maximum or recorded maximum or rated value or rated val   | reverse current of the thyristor   | 10 mA                                 |
| I2t value maximum         450 A*s           Control circuit / Control supply voltage         DC           control supply voltage 1 at DC         average 1 at DC           • rated value maximum permissible         30 V           • at DC initial value for signal <1> detection         4 V           • at DC initial value of signal <1> detection         4 V           • at DC initial value for signal <1> detection         4 V           • at DC initial value for signal <1> detection         4 V           • at DC initial value for signal <1> detection         4 V           • at DC initial value for signal <1> detection         4 V           • at DC initial value for signal <1> detection         1 max           • ot DC Control supply voltage         -           • at DC initial value for signal <1> detection         1 max           control current at Dr rated value         15 mA           ON-delay time         1 ms; additionally max. one half-wave           Auxiliary circuit         0           number of NC contacts for auxillary contacts         0           number of NC contacts for auxillary contacts         0           Installation/ mounting/ dimensions         fastening method           fastening method         screw fixing           design of the thread of the screw for securing the equipment         <  | derating temperature   | 40 °C                                 |
| Control circuit/ Control         DC           type of voltage of the control supply voltage         DC           erated value maximum permissible         30 V           • rated value maximum permissible         30 V           • at DC fullial value for signal <1> detection         4 V           • at DC fullial value for signal <1> detection         4 V           • at DC fullial value for signal <1> detection         4 V           • at DC fullial value for signal <0> recognition         1 V           control current at minimum control supply voltage         13 mA           • at DC         13 mA           Control current at DC rated value         1 ms; additionally max. one half-wave           OFF-delay time         1 ms; additionally max. one half-wave           OFF-delay time         1 ms; additionally max. one half-wave           Inumber of NC contacts for auxillary contacts         0           number of NC contacts for auxillary contacts         0           Inumber of NC contacts for auxillary contacts         0           fastening method         screw fixing           design of the thread of the screw for securing the equipment         15 k-m           tightening torque of fixing screw maximum         13 lbfin           height         48 mm           Contoct or formails         screw-lype te  | surge current resistance rated value                                       | 300 A                                 |
| type of voltage of the control supply voltage         DC           control supply voltage 1 at DC         30 V           • rated value maximum permissible         30 V           • at DC initial value for signal <1> detection         4 V           • at DC full-scale value for signal <2> detection         4 V           • at DC full-scale value for signal <2> recognition         1 V           control current at minimum control supply voltage         13 mA           • at DC         13 mA           control current at DC rated value         15 mA           OR-feday time         1 ms; additionally max. one half-wave           AVAilary direct         1 ms; additionally max. one half-wave           Availary direct         0           number of NC contacts for auxiliary contacts         0           number of NC contacts for auxiliary contacts         0           Instaliation/ mounting/ dimensions         15 km           fastening method         screw fixing           design of the thread of the screw for securing the equipment         1.5 km           tightening torque of fixing screw maximum         1.5 k  | l2t value maximum  | 450 A <sup>2</sup> ·s                 |
| control supply voltage 1 at DC       30 V         • rated value maximum permissible       30 V         • at DC initial value for signal <1> detection       4 V         • at DC full-scale value for signal <2> recognition       1 V         control current at minimum control supply voltage       1 3 mA         • at DC full-scale value for signal <2> recognition       1 V         control current at minimum control supply voltage       1 3 mA         control current at DC rated value       15 mA         ON-delay time       1 ms; additionally max. one half-wave         Auxilary circuit       1 ms; additionally max. one half-wave         number of NC contacts for auxiliary contacts       0         number of NC contacts for auxiliary contacts       0         number of NC contacts for auxiliary contacts       0         number of CC contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       fastening method side-by-side mounting         fastening method side-by-side mounting       Yes         fastening method side-by-side mounting       Yes         fastening method side-by-side mounting       8 mm         design of the thread of the screw for socuring the equipment       8 mm         tightening torque [lth-lin] of fixing screw maximum       13 lbr/in         heighth  | Control circuit/ Control   |                                       |
| • rated value maximum permissible 30 V<br>• • 430 V<br>control supphy voltage<br>• at DC initial value for signal <1> detection 4 V<br>• at DC full-scale value for signal <1> detection 1 V<br>control current at minimum control supphy voltage<br>• at DC 1<br>• at DC 1<br>• at DC nated value for signal <1> detection 1 V<br>control current at minimum control supphy voltage 13 mA<br>control current at minimum control supphy voltage 15 mA<br>ON-delay time 1 ms; additionally max. one half-wave<br>OFF-delay time 1 ms; additionally max. one half-wave<br>OFF-delay time 1 ms; additionally max. one half-wave<br>Auxiliary circuit 1<br>number of NC contacts for auxiliary contacts 0<br>number of NO contacts for auxiliary contacts 0<br>fastening method side-by-side mounting 15 km<br>fastening method for signal screw maximum 15 km<br>tightening torque (If king screw maximum 15 km<br>tightening torque of fixing screw maximum 15 km<br>tightening torque fixing screw maximum 15 km<br>to | type of voltage of the control supply voltage                              | DC                                    |
| •     4 30 V       control supply voltage     4 V       • at DC initial value for signal <1> detection     4 V       • at DC full-scale value for signal <0> recognition     1 V       control current at minimum control supply voltage     13 mA       • at DC     13 mA       control current at DC rated value     15 mA       ON-delay time     1 ms; additionally max, one half-wave       OFF-dolay time     1 ms; additionally max, one half-wave       Auxiliary circuit     0       number of NC contacts for auxiliary contacts     0       fastening method side-by-side mounting     Yes       fastening method side-by-side mounting     Screw fixing       design of the thread of the screw for securing the equipment     M4       edigition for the screw for securing the Screw maximum     13 lb/sin       height     48 mm       Co  | control supply voltage 1 at DC   |                                       |
| control supply voltage       4 V         • at DC Initial value for signal <1> detection       4 V         • at DC full-acale value for signal <0> recognition       1 V         control current at minimum control supply voltage       1 mA         • at DC       13 mA         Control current at DC rated value       15 mA         ON-delay time       1 ms; additionally max, one half-wave         OFF-delay time       1 ms; additionally max, one half-wave         Auxiliary circuit       0         number of NC contacts for auxiliary contacts       0         Instantiation/ mounting/ dimensions       1         fastening method       screw fixing         design of the thread of the screw for securing the equipment       15 N-m         tightening torque of fixing screw maximum       15 N-m         tightening torque of bixing screw maximum       15 N-m         tightening torque of bixing screw maximum       13 lbf-in         height       48 mm         Connections/ Terminals       Yes         for auxiliary and control circuit       screw-type terminals  | <ul> <li>rated value maximum permissible</li> </ul>                        | 30 V                                  |
|   | •  | 4 30 V                                |
| • at DC full-scale value for signal-D> recognition       1 ∨         control current at nulnimum control supply voltage       1 mA         • at DC       15 mA         ON-delay time       1 ms; additionally max. one half-wave         OF-folay time       1 ms; additionally max. one half-wave         OR-folay time       1 ms; additionally max. one half-wave         Auxiliary circuit       1 ms; additionally max. one half-wave         number of NC contacts for auxiliary contacts       0         number of NC contacts for auxiliary contacts       0         number of CO contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       15 mA         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N-m         tightening torque of fixing screw maximum       13 lbf in         height       85 mm         width       22.5 mm         depth       48 mm         Control circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         • for main contacts       2x (1.5 2.5 mm <sup>3</sup> ), 2x (2.5 6 mm <sup>3</sup> ), 1x 10 mm  | control supply voltage   |                                       |
| control current at minimum control supply voltage       13 mA         control current at DC rated value       15 mA         Control current at DC rated value       15 mA         ON-delay time       1 ms; additionally max. one half-wave         OFF-dalay time       1 ms; additionally max. one half-wave         Auxiliary circuit       1 ms; additionally max. one half-wave         Auxiliary circuit       0         number of NC contacts for auxiliary contacts       0         number of CO contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       0         fastening method side-by-side mounting       Yes         fastening method side-by-side mounting       Yes         fastening method fits csrew for securing the equipment       M4         edigin of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N·m         tightening torque of fixing screw maximum       1.5 N·m         tightening torque of fixing screw maximum       1.5 N·m         width       22.5 mm         depth       48 mm         Connections/ Terminals       Feesee         product component removable terminal for auxiliary and control circuit       screw-type terminals         of or main current circuit  | <ul> <li>at DC initial value for signal &lt;1&gt; detection</li> </ul>     | 4 V                                   |
| • at DC     13 mA       control current at DC rated value     15 mA       ON-delay time     1 ms; additionally max. one half-wave       OFF-delay time     1 ms; additionally max. one half-wave       Auxiliary circuit     1 ms; additionally max. one half-wave       number of NC contacts for auxiliary contacts     0       number of NC contacts for auxiliary contacts     0       number of NC contacts for auxiliary contacts     0       Installation/ mounting/ dimensions     0       fastening method side-by-side mounting     Yes       fastening method side-by-side mounting     screw fixing       design of the thread of the screw for securing the equipment     M4       tightening torque of fixing screw maximum     1.5 N·m       tightening torque of fixing screw maximum     1.8 finin       height     85 mm       width     22.5 mm       depth     48 mm       Connections/ Terminals     Yes       product connection     screw-type terminals       otror alic current circuit     screw-type terminals       i for main current circuit     screw-type terminals       i for main contacts     2x (1.5 2.5 mm²), 2x (2.5 6 m²)       - solid     2x (1.4 10)   | <ul> <li>at DC full-scale value for signal&lt;0&gt; recognition</li> </ul> | 1 V                                   |
| control current at DC rated value         15 mA           ON-delay time         1 ms; additionally max. one half-wave           OFF-delay time         1 ms; additionally max. one half-wave           Auxiliary circuit         1 ms; additionally max. one half-wave           Auxiliary circuit         0           number of NC contacts for auxiliary contacts         0           number of NC contacts for auxiliary contacts         0           number of NC contacts for auxiliary contacts         0           Installation/ mounting/ dimensions         1           fastening method side-by-side mounting         Yes           fastening method         screw fixing           design of the thread of the screw for securing the equipment         M4           tightening torque [Ib/in] of fixing screw maximum         1.5 N·m           tightening torque [Ib/in] of fixing screw maximum         13 lb/in           height         85 mm           width         22.5 mm           depth         48 mm           Connectons/ Terminals         Screw-type terminals           product connection         screw-type terminals           • for main current circuit         screw-type terminals           • for main contacts         2x (1.5 2.5 mm <sup>2</sup> ), 2x (2.5 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> - solid </td <td>control current at minimum control supply voltage</td> <td></td>  | control current at minimum control supply voltage                          |                                       |
| ON-delay time       1 ms; additionally max. one half-wave         OFF-delay time       1 ms; additionally max. one half-wave         Auxiliary circuit       0         number of NC contacts for auxiliary contacts       0         number of CO contacts for auxiliary contacts       0         Inumber of CO contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       0         fastening method side-by-side mounting       Yes         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N-m         tightening torque [lbf-in] of fixing screw maximum       13 lbf in         height       85 mm         width       22.5 mm         depth       48 mm         Connections/Terminals       Yes         product component removable terminal for auxiliary and control circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main contacts       - solid       2x (1.5 2.5 mm <sup>3</sup> ), 2x (2.5 6 mm <sup>3</sup> ), 1x 10 mm <sup>3</sup> • for main contacts       <  | • at DC  | 13 mA                                 |
| OFF-delay time       1 ms; additionally max. one half-wave         Auxiliary circuit       Inmber of NC contacts for auxiliary contacts       0         number of NO contacts for auxiliary contacts       0       0         Installation/ mounting/ dimensions       0       0         fastening method side-by-side mounting       Yes       1         fastening method       screw fixing       0         design of the thread of the screw for securing the equipment       M4       0         tightening torque of fixing screw maximum       1.5 N·m       1         tightening torque [bf·in] of fixing screw maximum       13 lbf·in       1         height       85 mm       0       0         width       22.5 mm       48 mm       0         Connections/ Terminals       Yes       1       1         product component removable terminal for auxiliary and control circuit       screw-type terminals       1         of or main current circuit       screw-type terminals       1       1         of or maxiliary and control circuit       screw-type terminals       1       1         of or maxiliary and control circuit       screw-type terminals       1       1         of or main contacts       - solid       2x (1 2.5 mm²), 2x (2.5 6 mm²)       1<  | control current at DC rated value  |                                       |
| Auxiliary circuit       0         number of NC contacts for auxiliary contacts       0         number of NO contacts for auxiliary contacts       0         number of CO contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       0         fastening method side-by-side mounting       Yes         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N-m         tightening torque of fixing screw maximum       13 lbf in         height       85 mm         width       22.5 mm         depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - solid       2x (14 10)  | ON-delay time  | 1 ms; additionally max. one half-wave |
| number of NC contacts for auxiliary contacts         0           number of NO contacts for auxiliary contacts         0           number of CO contacts for auxiliary contacts         0           Installation/ mounting/ dimensions         0           fastening method side-by-side mounting         Yes           fastening method         screw fixing           design of the thread of the screw for securing the equipment         M4           tightening torque of fixing screw maximum         1.5 N·m           tightening torque of fixing screw maximum         13 lbf-in           height         85 mm           width         22.5 mm           depth         48 mm           Connections/ Terminals         Yes           product component removable terminal for auxiliary and control circuit         screw-type terminals           • for main current circuit         screw-type terminals           • for main current circuit         screw-type terminals           • for main contacts         - solid           - solid         2x (1.5 2.5 mm²), 2x (2.5 6 mm²)           - finely stranded with core end processing         2x (1 2.5 mm²), 2x (2.5 6 mm²)           - finely stranded with core end processing         2x (1 10)  |  | 1 ms; additionally max. one half-wave |
| number of NO contacts for auxiliary contacts         0           number of CO contacts for auxiliary contacts         0           Installation/ mounting/ dimensions         0           fastening method side-by-side mounting         Yes           fastening method         screw fixing           design of the thread of the screw for securing the equipment         M4           tightening torque of fixing screw maximum         1.5 N·m           tightening torque of fixing screw maximum         13 lbfin           height         85 mm           width         22.5 mm           depth         48 mm           Connections/ Terminals         Yes           product component removable terminal for auxiliary and control circuit         Yes           type of electrical connection         screw-type terminals           • for main contacts         - solid           - solid         2x (1.5 2.5 mm²), 2x (2.5 6 mm²)           - solid         2x (1.4 10)   |  |                                       |
| number of CO contacts for auxiliary contacts       0         Installation/ mounting/ dimensions       Installation/ mounting/ dimensions         fastening method side-by-side mounting       Yes         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N·m         tightening torque [lbf·in] of fixing screw maximum       13 lbf·in         height       85 mm         width       22.5 mm         depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main contacts       solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)  | number of NC contacts for auxiliary contacts                               | 0                                     |
| Installation/ mounting/ dimensions         fastening method side-by-side mounting       Yes         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         equipment       1.5 N·m         tightening torque of fixing screw maximum       1.5 N·m         height       85 mm         width       22.5 mm         depth       48 mm         Connections/ Terminals         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for main current circuit       screw-type terminals         • for main control circuit       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (14 10)  | number of NO contacts for auxiliary contacts                               | 0                                     |
| fastening method side-by-side mounting       Yes         fastening method       screw fixing         design of the thread of the screw for securing the equipment       M4         tightening torque of fixing screw maximum       1.5 N·m         tightening torque [lbf-in] of fixing screw maximum       13 lbf-in         height       85 mm         width       22.5 mm         depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       Screw-type terminals         type of electrical connection       screw-type terminals         of or main current circuit       screw-type terminals         of or main control circuit       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         of or main contacts       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         e for AWG cables for main contacts       2x (14 10)  | number of CO contacts for auxiliary contacts                               | 0                                     |
| fastening methodscrew fixingdesign of the thread of the screw for securing the<br>equipmentM4tightening torque of fixing screw maximum1.5 N·mtightening torque [lbf·in] of fixing screw maximum13 lbf·inheight85 mmwidth22.5 mmdepth48 mmConnections/ Terminalsproduct component removable terminal for auxiliary and<br>control circuittype of electrical connectionYestype of connectable conductor cross-sections• for main current circuitscrew-type terminals• for main contacts- solid- solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²)- finely stranded with core end processing<br>e for AWG cables for main contacts2x (14 10)   | Installation/ mounting/ dimensions   |                                       |
| design of the thread of the screw for securing the<br>equipmentM4tightening torque of fixing screw maximum1.5 N·mtightening torque [lbf·in] of fixing screw maximum13 lbf·inheight85 mmwidth22.5 mmdepth48 mmConnections/ Terminalsproduct component removable terminal for auxiliary and<br>control circuitfor main current circuityese for main current circuitscrew-type terminals• for main current circuitscrew-type terminals• for main contacts- solid- solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²)- finely stranded with core end processing<br>• for AWG cables for main contacts2x (14 10)  |  | Yes                                   |
| equipmenttightening torque of fixing screw maximum1.5 N·mtightening torque [lbf·in] of fixing screw maximum13 lbf·inheight85 mmwidth22.5 mmdepth48 mmConnections/ Terminalsproduct component removable terminal for auxiliary and<br>control circuitfor main current circuitscrew-type terminals• for auxiliary and control circuitscrew-type terminalstype of connectable conductor cross-sectionsscrew-type terminals• for main contacts- solid- solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²)- finely stranded with core end processing<br>• for AWG cables for main contacts2x (14 10)  |  | screw fixing                          |
| tightening torque [lbf-in] of fixing screw maximum       13 lbf-in         height       85 mm         width       22.5 mm         depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         type of connectable conductor cross-sections       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (14 10)   | design of the thread of the screw for securing the<br>equipment            | M4                                    |
| height       85 mm         width       22.5 mm         depth       48 mm         Connections/Terminals       Yes         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         type of connectable conductor cross-sections       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)  | tightening torque of fixing screw maximum                                  | 1.5 N·m                               |
| width       22.5 mm         depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         • for main control circuit       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)   | tightening torque [lbf·in] of fixing screw maximum                         | 13 lbf-in                             |
| depth       48 mm         Connections/ Terminals       Yes         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         • for main control circuit       screw-type terminals         • for main control circuit       screw-type terminals         • for main contacts       - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)   | height   | 85 mm                                 |
| Connections/ Terminals         product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         • for main control circuit       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)   | width  | 22.5 mm                               |
| product component removable terminal for auxiliary and control circuit       Yes         type of electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         type of connectable conductor cross-sections       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)  | depth  | 48 mm                                 |
| control circuittype of electrical connection• for main current circuitscrew-type terminals• for auxiliary and control circuitscrew-type terminalstype of connectable conductor cross-sections• for main contacts- solid- solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²)- finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG cables for main contacts2x (14 10)   | Connections/ Terminals   |                                       |
| type of electrical connectionscrew-type terminals• for main current circuitscrew-type terminals• for auxiliary and control circuitscrew-type terminalstype of connectable conductor cross-sectionsscrew-type terminals• for main contacts- solid solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²) finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG cables for main contacts2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²   |  | Yes                                   |
| • for main current circuit       screw-type terminals         • for auxiliary and control circuit       screw-type terminals         type of connectable conductor cross-sections       screw-type terminals         • for main contacts       - solid         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²   | type of electrical connection  |                                       |
| • for auxiliary and control circuitscrew-type terminalstype of connectable conductor cross-sectionsscrew-type terminals• for main contacts- solid- solid2x (1.5 2.5 mm²), 2x (2.5 6 mm²)- finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG cables for main contacts2x (1 10)  | <ul> <li>for main current circuit</li> </ul>                               | screw-type terminals                  |
| type of connectable conductor cross-sections       •         • for main contacts       -         - solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         - finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²)         • for AWG cables for main contacts       2x (14 10)   | <ul> <li>for auxiliary and control circuit</li> </ul>                      |                                       |
| — solid       2x (1.5 2.5 mm²), 2x (2.5 6 mm²)         — finely stranded with core end processing       2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²         • for AWG cables for main contacts       2x (14 10)   | ·  |                                       |
| finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG cables for main contacts2x (14 10)   | ••   |                                       |
| finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG cables for main contacts2x (14 10)   | — solid  | 2x (1.5 2.5 mm²), 2x (2.5 6 mm²)      |
| • for AWG cables for main contacts 2x (14 10)   | — finely stranded with core end processing                                 |                                       |
|   | <ul> <li>for AWG cables for main contacts</li> </ul>                       |                                       |
|   | connectable conductor cross-section for main contacts                      |                                       |

|   | 4.5 0 mm²   |
|---|---|
| solid or stranded   | 1.5 6 mm <sup>2</sup>   |
| finely stranded with core end processing  | 1 10 mm²  |
| type of connectable conductor cross-sections  |   |
| <ul> <li>for auxiliary and control contacts</li> </ul>  |   |
| — solid   | 1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.0 mm <sup>2</sup> )  |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.0 mm <sup>2</sup> )  |
| <ul> <li>finely stranded without core end processing</li> </ul>   | 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)  |
| <ul> <li>for AWG cables for auxiliary and control contacts</li> </ul>   | 1x (AWG 20 12)  |
| AWG number as coded connectable conductor cross section for<br>main contacts  | 14 10   |
| tightening torque   |   |
| <ul> <li>for main contacts with screw-type terminals</li> </ul>   | 2 2.5 N·m   |
| <ul> <li>for auxiliary and control contacts with screw-type<br/>terminals</li> </ul>  | 0.5 0.6 N·m   |
| tightening torque [lbf·in]  |   |
| <ul> <li>for main contacts with screw-type terminals</li> </ul>   | 7 10.3 lbf·in   |
| <ul> <li>for auxiliary and control contacts with screw-type<br/>terminals</li> </ul>  | 4.5 5.3 lbf·in  |
| design of the thread of the connection screw  |   |
| <ul> <li>for main contacts</li> </ul>   | M4  |
| of the auxiliary and control contacts   | M3  |
| stripped length of the cable  |   |
| for main contacts   | 7 mm  |
| <ul> <li>for auxiliary and control contacts</li> </ul>  | 7 mm  |
| Electrical Safety   |   |
| protection class IP on the front according to IEC 60529   | IP20  |
| touch protection on the front according to IEC 60529  | finger-safe, for vertical contact from the front  |
| Ambient conditions  |   |
| installation altitude at height above sea level maximum   | 1 000 m   |
| ambient temperature   |   |
| <ul> <li>during operation</li> </ul>  | -25 +60 °C  |
|   |   |
| during storage  | -55 +80 °C  |
| during storage Electromagnetic compatibility  | -55 +80 °C  |
|   | -55 +80 °C  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4  | -55 +80 °C<br>2 kV / 5 kHz behavior criterion 2   |
| Electromagnetic compatibility conducted interference  |   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4  | 2 kV / 5 kHz behavior criterion 2   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-   | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to   | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to<br>CISPR11  | <ul> <li>2 kV / 5 kHz behavior criterion 2</li> <li>2 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1</li> <li>80 MHz 1 GHz 10 V/m, behavior criterion 1</li> <li>4 kV contact discharging / 8 kV air discharging, behavior criterion 2</li> <li>Class A for industrial environment</li> </ul>  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11  | <ul> <li>2 kV / 5 kHz behavior criterion 2</li> <li>2 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1</li> <li>80 MHz 1 GHz 10 V/m, behavior criterion 1</li> <li>4 kV contact discharging / 8 kV air discharging, behavior criterion 2</li> </ul>  |
| Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2         conducted HF interference emissions according to CISPR11         field-bound HF interference emission according to CISPR11         Short-circuit protection, design of the fuse link  | <ul> <li>2 kV / 5 kHz behavior criterion 2</li> <li>2 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1</li> <li>80 MHz 1 GHz 10 V/m, behavior criterion 1</li> <li>4 kV contact discharging / 8 kV air discharging, behavior criterion 2</li> <li>Class A for industrial environment</li> </ul>  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design  | <ul> <li>2 kV / 5 kHz behavior criterion 2</li> <li>2 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1</li> <li>80 MHz 1 GHz 10 V/m, behavior criterion 1</li> <li>4 kV contact discharging / 8 kV air discharging, behavior criterion 2</li> <li>Class A for industrial environment</li> <li>Class B for the domestic, business and commercial environments</li> <li>3NE1815-0: These fuses have a smaller rated current than the semiconductor</li> </ul>  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design<br>usable<br>• of full range R fuse link for semiconductor protection at   | <ul> <li>2 kV / 5 kHz behavior criterion 2</li> <li>2 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1</li> <li>80 MHz 1 GHz 10 V/m, behavior criterion 1</li> <li>4 kV contact discharging / 8 kV air discharging, behavior criterion 2</li> <li>Class A for industrial environment</li> <li>Class B for the domestic, business and commercial environments</li> </ul>  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design<br>usable<br>• of full range R fuse link for semiconductor protection at<br>cylindrical design usable<br>• of back-up R fuse link for semiconductor protection at NH   | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0: These fuses have a smaller rated current than the semiconductor relays   |
| Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2         conducted HF interference emissions according to CISPR11         field-bound HF interference emission according to CISPR11         Short-circuit protection, design of the fuse link         manufacturer's article number         • of gS fuse for semiconductor protection at NH design usable         • of full range R fuse link for semiconductor protection at cylindrical design usable   | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design<br>usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0  |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design<br>usable<br>• of back-up R fuse link for semiconductor protection at cylindrical design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable<br>• of back-up R fuse link for semiconductor protection at NH<br>design usable | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0<br>3NC1032   |
| Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2         conducted HF interference emissions according to CISPR11         field-bound HF interference emission according to CISPR11         Short-circuit protection, design of the fuse link         manufacturer's article number         • of gS fuse for semiconductor protection at NH design usable         • of back-up R fuse link for semiconductor protection at cylindrical design usable         • of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0: These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0<br>3NC1032<br>3NC1440  |
| Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2         conducted HF interference emissions according to CISPR11         field-bound HF interference emission according to CISPR11         Short-circuit protection, design of the fuse link         manufacturer's article number         • of gS fuse for semiconductor protection at NH design usable         • of back-up R fuse link for semiconductor protection at cylindrical design usable         • of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0<br>3NC1032<br>3NC1440<br>3NC2240   |
| Electromagnetic compatibility<br>conducted interference<br>• due to burst according to IEC 61000-4-4<br>• due to conductor-earth surge according to IEC 61000-4-5<br>• due to conductor-conductor surge according to IEC 61000-4-5<br>• due to high-frequency radiation according to IEC 61000-<br>4-6<br>field-based interference according to IEC 61000-4-3<br>electrostatic discharge according to IEC 61000-4-2<br>conducted HF interference emissions according to<br>CISPR11<br>field-bound HF interference emission according to CISPR11<br>Short-circuit protection, design of the fuse link<br>manufacturer's article number<br>• of gS fuse for semiconductor protection at NH design<br>usable<br>• of full range R fuse link for semiconductor protection at<br>cylindrical design usable<br>• of back-up R fuse link for semiconductor protection at<br>cylindrical design 10 x 38 mm usable<br>• of back-up R fuse link for semiconductor protection at<br>cylindrical design 14 x 51 mm usable<br>• of back-up R fuse link for semiconductor protection at<br>cylindrical design 22 x 58 mm usable<br>manufacturer's article number of the gG fuse<br>• at NH design usable  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0<br>3NC1032<br>3NC1440<br>3NC2240<br>3NA6803; These fuses have a smaller rated current than the semiconductor<br>relays |
| Electromagnetic compatibility         conducted interference         • due to burst according to IEC 61000-4-4         • due to conductor-earth surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to high-frequency radiation according to IEC 61000-4-6         field-based interference according to IEC 61000-4-3         electrostatic discharge according to IEC 61000-4-2         conducted HF interference emissions according to CISPR11         field-bound HF interference emission according to CISPR11         Short-circuit protection, design of the fuse link         manufacturer's article number         • of gS fuse for semiconductor protection at NH design usable         • of back-up R fuse link for semiconductor protection at cylindrical design usable         • of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable         • of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable  | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1<br>80 MHz 1 GHz 10 V/m, behavior criterion 1<br>4 kV contact discharging / 8 kV air discharging, behavior criterion 2<br>Class A for industrial environment<br>Class B for the domestic, business and commercial environments<br>3NE1815-0; These fuses have a smaller rated current than the semiconductor<br>relays<br>5SE1335<br>3NE1815-0<br>3NC1032<br>3NC1440<br>3NC2240<br>3NA6803; These fuses have a smaller rated current than the semiconductor           |

| <ul><li>of DIAZED fuse</li><li>of NEOZED fuse</li></ul> |   | relay<br>5SE        | 5SB251; These fuses have a smaller rated current than the semiconductor relays<br>5SE2313-2A; These fuses have a smaller rated current than the semiconductor relays |   |                                  |  |
|---|---|---------------------|--|---|----------------------------------|--|
| Approvals Certificates<br>General Product Appr          | roval                                       |                     |  |   | EMV                              |  |
| CE<br>EG-Konf.  | UK<br>CA                                    | <u>Confirmation</u> | <b>SAL</b><br>UR   | EHC   | RCM                              |  |
| Test Certificates                                       |   | other               |  | Railway                                     | Environment                      |  |
| <u>Type Test Certific-</u><br>ates/Test Report          | <u>Special Test Certific-</u><br><u>ate</u> | <u>Confirmation</u> |  | <u>Special Test Certific-</u><br><u>ate</u> | Environmental Con-<br>firmations |  |

Further information

Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875 Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2130-1AA42

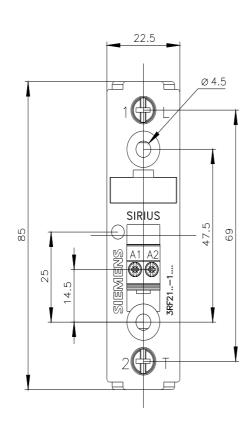
Cax online generator

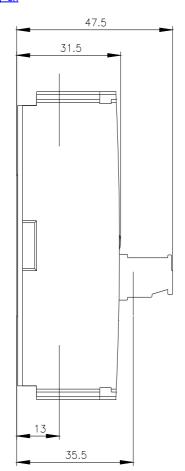
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2130-1AA42

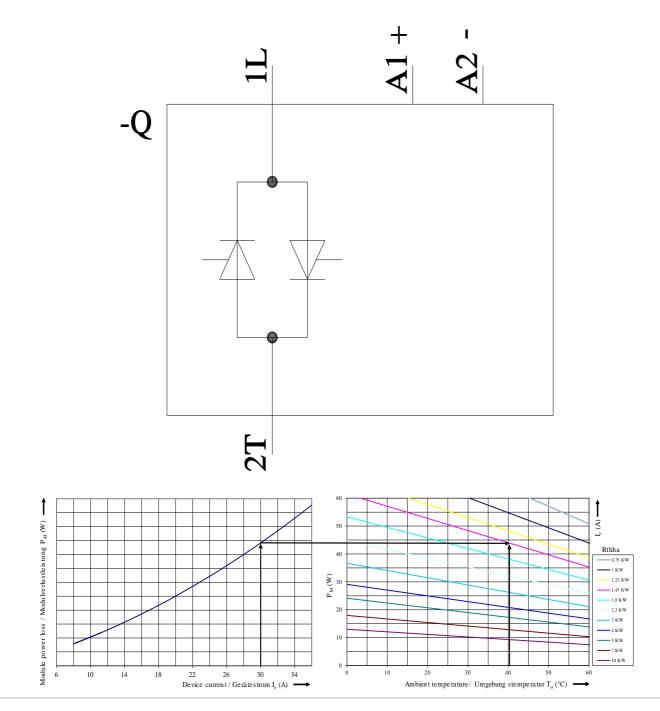
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RF2130-1AA42

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RF2130-1AA42&lang=en







last modified:

3/11/2024 🖸