



Surge arrester T2, UN 240/400 V, UC 350/264 V AC, pluggable protective module, 3+1 circuit (TN-S, TT), Width 49.2 mm

| General data                                                          |                                       |
|-----------------------------------------------------------------------|---------------------------------------|
| standard                                                              | IEC 61643-11: 2011, EN 61643-11: 2012 |
| product designation                                                   | Surge protection device               |
| <b>SPD classification according to EN 61643-11</b>                    |                                       |
| • Test Class I, Type 1                                                | No                                    |
| • Test Class II, Type 2                                               | Yes                                   |
| • Test Class III, Type 3                                              | No                                    |
| number of SPD ports                                                   | 1                                     |
| design of the product                                                 | Surge arrester                        |
| design of pole                                                        | 3+N/PE                                |
| designation of the protective paths                                   | L-N, N-PE                             |
| accessories                                                           | 3 x 5SD7428-1 + 1 x 5SD7428-2         |
| fastening method                                                      | DIN rail NS 35                        |
| material of the enclosure                                             | PA 6.6 / PBT                          |
| size of surge arrester                                                | 2,7 MW                                |
| degree of pollution                                                   | 2                                     |
| overvoltage category according to IEC 61010-1                         | III                                   |
| protection class IP at connection all terminals                       | IP20                                  |
| shock acceleration                                                    | 30 gn                                 |
| vibrational acceleration at 5 Hz ... 500 Hz limited to 2,5 h per axis | 5 gn                                  |
| relative humidity during operation                                    | 5 ... 95 %                            |
| installation altitude at height above sea level maximum               | 2 000 m                               |
| width                                                                 | 49.2 mm                               |
| height                                                                | 98 mm                                 |
| depth                                                                 | 71.5 mm                               |
| net weight                                                            | 394 g                                 |
| Electrical data                                                       |                                       |
| type of distribution system                                           | TT, TN-S                              |
| <b>operating voltage</b>                                              |                                       |
| • at AC                                                               | 230 V                                 |
| value range of the operating frequency                                | 50 / 60 Hz                            |
| <b>continuous operating voltage</b>                                   |                                       |
| • at AC maximum                                                       | 350 V                                 |
| • between N and PE at AC maximum                                      | 264 V                                 |
| • between L and PE at AC maximum                                      | 350 V                                 |
| • between L and (PE)N at AC maximum                                   | 350 V                                 |
| <b>discharge current</b>                                              |                                       |
| • between L and (PE)N at (8/20) µs                                    | 20 kA                                 |
| • between L and N at (8/20) µs                                        | 40 kA                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• between L and PE at (8/20) <math>\mu</math>s</li> <li>• between L and PE at (8/20) <math>\mu</math>s</li> <li>• between N and PE at (8/20) <math>\mu</math>s</li> <li>• between N and PE at (8/20) <math>\mu</math>s</li> </ul>                                                                                                                                                                                                                                                        | 40 kA<br>20 kA<br>80 kA<br>40 kA                                                                             |
| <b>follow current extinguishing capability</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                              |
| <ul style="list-style-type: none"> <li>• between N and PE</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100 A (264 V a.c.)                                                                                           |
| short-circuit rating (SCCR) at 264 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25 kA                                                                                                        |
| <b>protection level</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                              |
| <ul style="list-style-type: none"> <li>• between L and N maximum</li> <li>• between L and PE maximum</li> <li>• between N and PE maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             | 1.5 kV<br>1.9 kV<br>1.5 kV                                                                                   |
| <b>residual voltage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                              |
| <ul style="list-style-type: none"> <li>• between L and (PE)N <ul style="list-style-type: none"> <li>— at rated value of discharge current maximum</li> <li>— at 10 kA maximum</li> <li>— at 5 kA maximum</li> <li>— at 4 kA maximum</li> <li>— at 2 kA maximum</li> </ul> </li> <li>• between N and PE <ul style="list-style-type: none"> <li>— at rated value of discharge current maximum</li> <li>— at 10 kA maximum</li> <li>— at 5 kA maximum</li> <li>— at 4 kA maximum</li> <li>— at 2 kA maximum</li> </ul> </li> </ul> | 1.5 kV<br>1.3 kV<br>1.2 kV<br>1.1 kV<br>1 kV<br>0.7 kV<br>0.7 kV<br>0.7 kV<br>0.7 kV<br>0.7 kV               |
| <b>response value of the surge voltage at 6 kV at (1.2/50) <math>\mu</math>s</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                              |
| <ul style="list-style-type: none"> <li>• between N and PE</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.5 kV                                                                                                       |
| <ul style="list-style-type: none"> <li>• response time between L and (PE)N</li> <li>• response time between N and PE</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                 | 25 ns<br>100 ns                                                                                              |
| adjustable response factor of tripping current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.6                                                                                                          |
| fuse protection type at V-shaped connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 40 A AC (gG)                                                                                                 |
| fuse protection type for T-connector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 315 A AC (gG)                                                                                                |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                              |
| type of electrical connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Screw terminal                                                                                               |
| stripped length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16 mm                                                                                                        |
| tightening torque                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4.3 ... 4.7 N·m                                                                                              |
| <b>connectable conductor cross-section</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                              |
| <ul style="list-style-type: none"> <li>• for finely stranded conductor</li> <li>• for rigid conductor</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                | 2.5 ... 16 mm <sup>2</sup><br>2.5 ... 25 mm <sup>2</sup>                                                     |
| AWG number as coded connectable conductor cross section                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12 ... 4                                                                                                     |
| design of the thread of the connection screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | M5                                                                                                           |
| signal design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Optical, remote signaling contact                                                                            |
| <b>Indicator/remote signaling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |
| product component remote signaling contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                                                                                                          |
| switching function of the remote signaling contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PDT contact                                                                                                  |
| operating voltage of the remote signaling contacts at AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5 ... 250 V                                                                                                  |
| operational current of the remote signaling contacts at AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5 mA ... 1 A                                                                                                 |
| connection type of remote signaling contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | M2                                                                                                           |
| connectable conductor cross-section for remote signaling contacts for rigid conductor                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.14 ... 1.5 mm <sup>2</sup>                                                                                 |
| connectable conductor cross-section                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.14 ... 1.5 mm <sup>2</sup>                                                                                 |
| AWG number as coded connectable conductor cross section for remote signaling contacts                                                                                                                                                                                                                                                                                                                                                                                                                                           | 28 ... 16                                                                                                    |
| tightening torque for remote signaling contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.25 N·m                                                                                                     |
| <b>NEMA/UL - Data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                              |
| type of distribution system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TT, TN-S                                                                                                     |
| <b>TOV behavior</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                              |
| <ul style="list-style-type: none"> <li>• at TOV test voltage (L-N)</li> <li>• at TOV test voltage (N-PE)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                             | 415 V AC (5 s / withstand mode) / 457 V AC (120 min / safe failure mode)<br>1200 V (200 ms / withstand mode) |
| <b>ambient temperature</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                              |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -40 ... +80 °C                                                                                               |

|                                         |                |
|-----------------------------------------|----------------|
| • during storage                        | -40 ... +80 °C |
| combustibility class according to UL 94 | V0             |

#### Approvals Certificates

|                          |       |
|--------------------------|-------|
| General Product Approval | other |
|--------------------------|-------|



[Confirmation](#)



[Confirmation](#)

[Miscellaneous](#)

|       |             |
|-------|-------------|
| other | Environment |
|-------|-------------|

[Miscellaneous](#)

[Environmental Con-  
firmations](#)

[Environmental Con-  
firmations](#)

#### Further information

Information on the packaging

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

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SD7424-3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SD7424-3>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SD7424-3](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7424-3)

CAX-Online-Generator

<http://www.siemens.com/cax>

last modified:

3/20/2024

