

Surge protection device - PT-IQ-2X2+F-5DC-UT - 2800809

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits. Indirect grounding via gas-filled surge arrester.



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4046356665261 |

Technical data

Dimensions

| | |
|------------------|---------------------------------|
| Height | 91.1 mm |
| Width | 17.7 mm |
| Depth | 77.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 1 Div. |

Ambient conditions

| | |
|-----------------------------------------|----------------------------------------|
| Ambient temperature (operation) | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 4000 m (amsl (above mean sea level)) |
| Degree of protection | IP20 |

General

| | |
|----------------------------------------|-----------------------------------------|
| Housing material | PA 6.6 |
| Flammability rating according to UL 94 | V-0 |
| Color | jet black RAL 9005 |
| Mounting type | DIN rail: 35 mm |
| Type | DIN rail module, two-section, divisible |

Surge protection device - PT-IQ-2X2+F-5DC-UT - 2800809

Technical data

General

| | |
|---------------------|------------------------------------------------------------------------------------|
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |
|---------------------|------------------------------------------------------------------------------------|

Additional descriptions

| | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | Remote signaling as well as the power supply of the DIN rail connector are established by snapping the module into place on the DIN rail connector. |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

Protective circuit

| | |
|------------------------------------------------------------------------|-------------------------------------|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| Nominal voltage U_N | 5 V DC |
| Maximum continuous voltage U_C | 6 V DC |
| | 4 V AC |
| Rated current | 700 mA (50 °C) |
| Operating effective current I_C at U_C | ≤ 2 mA (in the signal circuit) |
| Residual current I_{PE} | ≤ 1 μ A |
| Nominal discharge current I_n (8/20) μ s (line-line) | 10 kA |
| Nominal discharge current I_n (8/20) μ s (line-earth) | 10 kA |
| Pulse discharge current I_{imp} (10/350) μ s (line-earth) | 2.5 kA |
| Pulse discharge current I_{imp} (10/350) μ s (line-signalground) | 2.5 kA |
| Total discharge current I_{total} (8/20) μ s | 20 kA |
| Voltage protection level U_p (line-line) | ≤ 85 V (C1 - 1 kV/500 A) |
| | ≤ 110 V (C2 - 10 kV / 5 kA) |
| | ≤ 140 V (C2 - 10 kA) |
| | ≤ 25 V (C3 - 25 A) |
| | ≤ 25 V (C3 - 50 A) |
| Voltage protection level U_p (line-earth) | ≤ 900 V (C1 - 1 kV/500 A) |
| | ≤ 1300 V (C2 - 10 kV / 5 kA) |
| | ≤ 1200 V (C2 - 10 kA) |
| | ≤ 1000 V (C3 - 25 A) |
| | ≤ 1300 V (C3 - 100 A) |
| Voltage protection level U_p (line-signalground) | ≤ 600 V (C1 - 1 kV/500 A) |
| | ≤ 750 V (C2 - 10 kV / 5 kA) |
| | ≤ 800 V (C2 - 10 kA) |
| | ≤ 700 V (C3 - 25 A) |
| | ≤ 800 V (C3 - 100 A) |
| Voltage protection level U_p static (line-line) | ≤ 26 V (C1 - 1 kV/500 A) |
| | ≤ 70 V (C2 - 10 kV / 5 kA) |
| | ≤ 30 V (C2 - 10 kA) |

Surge protection device - PT-IQ-2X2+F-5DC-UT - 2800809

Technical data

Protective circuit

| | |
|--------------------------------------------------------|-------------------------------------------------------------------------------|
| Response time t_A (line-line) | ≤ 1 ns |
| Response time t_A (line-signalground) | ≤ 100 ns |
| Response time t_A (line-earth) | ≤ 100 ns |
| Input attenuation aE, sym. | typ. 0.3 dB (≤ 40 kHz/150 Ω) |
| Cut-off frequency f_g (3 dB), sym. in 150 Ohm system | typ. 300 kHz |
| Capacity (line-line) | typ. 7.5 nF |
| Resistance in series | 1.2 Ω ± 5 % |
| Surge protection fault message | Optical, multi-stage |
| Max. required back-up fuse | 800 mA (FF) |
| Impulse durability (line-line) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 50 A |
| Impulse durability (line-earth) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 100 A D1 - 2.5 kA |
| Surge current carrying capability (wire-signal ground) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 100 A D1 - 2,5 kA |
| Pulse reset time (line-line) | ≤ 10 ms |
| Pulse reset time (line-earth) | ≤ 10 ms |
| Pulse reset time (line-signalground) | ≤ 10 ms |

Connection data

| | |
|----------------------------------|---------------------------------------------|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.5 Nm |
| Stripping length | 8 mm |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section solid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 12 |

Connection, equipotential bonding

| | |
|-------------------|---------------|
| Connection method | DIN rail NS35 |
|-------------------|---------------|

Standards and Regulations

| | |
|--------------------------|---------------------------------------|
| Standards/specifications | IEC 61643-21 2000 + A1:2008, modified |
| | EN 61643-21 2001 + A1:2009 |

Surge protection device - PT-IQ-2X2+F-5DC-UT - 2800809

Technical data

Standards and Regulations

| | |
|--|-----------------------------|
| | EN 61000-6-2 2007 + A1:2011 |
| | EN 61000-6-3 2005 |

Environmental Product Compliance

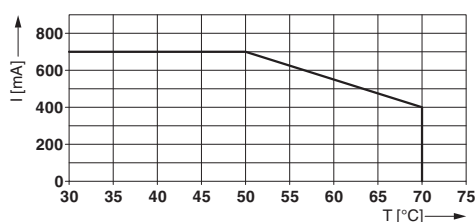
| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Drawings

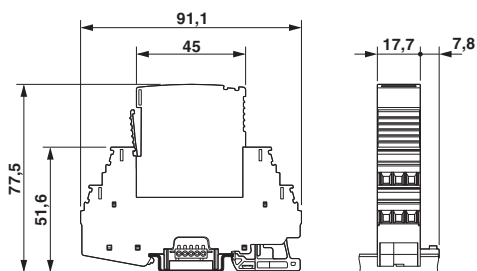
Pictogram



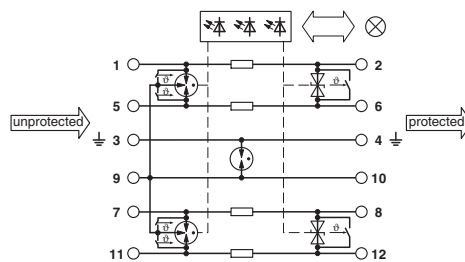
Diagram



Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

UL Listed

Ex Approvals

Approval details

| | | | |
|-----------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 138168 |
|-----------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>