

Surge protection device - PT-IQ-3-PB+F-UT - 2800994

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 three signal wires with common reference potential. Indirect grounding via gas-filled surge arrester. For HF applications and telecommunications interfaces without supply voltage (up to 90 Mbps).

Your advantages

- ✓ Surge protection system
- ✓ Multi-level state monitoring
- ✓ Collective message about supply and remote module
- ✓ System supplied via DIN rail bus
- ✓ Up to 28 protection modules per supply module
- ✓ For HF applications, thanks to high transmission speeds
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Codable plug
- ✓ Impedance-neutral disconnection of plug for maintenance purposes
- ✓ Base element remains an integral part of the installation



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 667425 |
| GTIN | 4046356667425 |

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 |
|---------------------------------|------------------|

Surge protection device - PT-IQ-3-PB+F-UT - 2800994

Technical data

Ambient conditions

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

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 | 600 mA (40 °C) |
| Operating effective current I_C at U_C | ≤ 800 μA (per path) |
| Residual current I_{PE} | ≤ 10 μA |
| Nominal discharge current I_n (8/20) μs (line-line) | 10 kA |
| Nominal discharge current I_n (8/20) μs (line-earth) | 10 kA |
| Pulse discharge current I_{imp} (10/350) μs (line-earth) | 2.5 kA |
| Pulse discharge current I_{imp} (10/350) μs (line-signalground) | 2.5 kA |
| Total discharge current I_{total} (8/20) μs | 20 kA |
| Voltage protection level U_p (line-line) | ≤ 90 V (C1 - 1 kV/500 A) |
| | ≤ 140 V (C2 - 10 kV / 5 kA) |
| | ≤ 30 V (C3 - 25 A) |
| | ≤ 30 V (C3 - 50 A) |
| Voltage protection level U_p (line-earth) | ≤ 730 V (C1 - 1 kV/500 A) |
| | ≤ 900 V (C2 - 10 kV / 5 kA) |
| | ≤ 900 V (C3 - 25 A) |
| | ≤ 900 V (C3 - 50 A) |
| Voltage protection level U_p (line-signalground) | ≤ 90 V (C1 - 1 kV/500 A) |
| | ≤ 140 V (C2 - 10 kV / 5 kA) |
| | ≤ 30 V (C3 - 25 A) |
| | ≤ 30 V (C3 - 50 A) |

Surge protection device - PT-IQ-3-PB+F-UT - 2800994

Technical data

Protective circuit

| | |
|---|--|
| Voltage protection level U_p static (line-line) | ≤ 45 V (C1 - 1 kV/500 A) |
| Voltage protection level U_p static (line-signalground) | ≤ 45 V (C1 - 1 kV/500 A) |
| Response time t_A (line-line) | ≤ 1 ns |
| Response time t_A (line-signalground) | ≤ 1 ns |
| Response time t_A (line-earth) | ≤ 100 ns |
| Input attenuation aE, sym. | typ. 0.3 dB (≤ 10 MHz/150 Ω) |
| Input attenuation aE, asym. | typ. 0.3 dB (≤ 10 MHz/150 Ω) |
| Cut-off frequency f_g (3 dB), sym. in 150 Ohm system | typ. 60 MHz |
| Cut-off frequency f_g (3 dB), asym. (GND) in 150 Ohm system | typ. 60 MHz |
| Capacity (line-line) | typ. 30 pF |
| Capacity (line-signalground) | typ. 30 pF |
| Resistance in series | 1.2 $\Omega \pm 5$ % |
| Surge protection fault message | Optical, multi-stage |
| Max. required back-up fuse | 600 mA (FF) |
| Impulse durability (line-line) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C3 - 50 A |
| Impulse durability (line-earth) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C3 - 50 A D1 - 2.5 kA |
| Surge current carrying capability (wire-signal ground) | C1 - 1 kV/500 A C2 - 10 kV/5 kA C3 - 50 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

Surge protection device - PT-IQ-3-PB+F-UT - 2800994

Technical data

Standards and Regulations

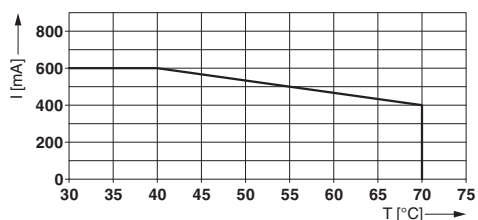
| | |
|--------------------------|---------------------------------------|
| Standards/specifications | IEC 61643-21 2000 + A1:2008 + A2:2012 |
| | EN 61643-21 2001 + A1:2009 |
| | EN 61000-6-2 2007 + A1:2011 |
| | EN 61000-6-3 2005 |

Environmental Product Compliance

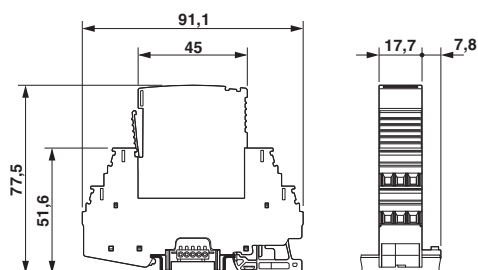
| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Drawings

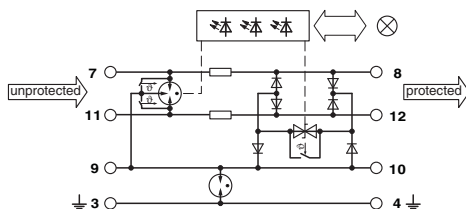
Diagram



Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

UL Listed

Ex Approvals

Approval details

Surge protection device - PT-IQ-3-PB+F-UT - 2800994

Approvals

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>