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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Lightning/surge arrester type 1/2 - PWT 100-800AC-FM - 2800531

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Lightning/surge arrester, according to type 1/2 / class I/II, for 3-phase power supply networks with combined PE and N installed in one conductor (L1, L2, L3, PEN).

Product Features

- ✓ Use in harsh industrial environments
- ✓ Very high TOV resistance
- ✓ Universal solution for various network types
- ✓ Meets installation requirements according to CLC/TS 50539-22
- ✓ Meets Lightning Protection Level I
- ✓ Free of leakage current/no line follow current
- ✓ Encapsulated, non-extinguishing
- ✓ Local optical status indication
- ✓ Multi-stage status monitoring via remote indication contact
- ✓ Type 1/2 arrester based on a varistor



Key commercial data

| | |
|----------------------|----------|
| Packing unit | 1 pc |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|--------|--------|
| Height | 191 mm |
| Width | 176 mm |
| Depth | 280 mm |

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

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Technical data

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -40 °C ... 80 °C |
| | -40 °C ... 55 °C (serial through wiring $\geq 35 \text{ mm}^2$) |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | $\leq 4000 \text{ m (NN)}$ |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 25g |
| Vibration (operation) | 5g (10 ... 500 Hz) |

General

| | |
|--|---|
| IEC power supply system | TN-C |
| | IT |
| Housing material | Die-cast aluminum, salt water resistant |
| Inflammability class according to UL 94 | V2 |
| Standards for air and creepage distances | DIN EN 60664-1 |
| | EN 61643-11 |
| Mounting type | Screw mounting |
| Type | Mounting plate |
| Number of positions | 3 |
| Surge protection fault message | Optical, remote indicator contact |
| Direction of action | 3L-PEN |

Protective circuit

| | |
|---|---|
| IEC test classification | I / II |
| | T1 / T2 |
| EN type | T1 / T2 |
| Lightning protection class | I |
| Nominal voltage U_N | 690 V AC |
| Maximum continuous operating voltage U_C (L-PE) | 800 V AC |
| U_T (TOV-proof) | 1500 V AC (5 sec.) |
| | 1960 V AC (200 ms) |
| Nominal frequency f_N | 50 Hz |
| | 60 Hz |
| Rated load current I_L | 150 A (Serial through wiring with 50 mm^2) |
| Residual current I_{PE} | $\leq 20 \mu\text{A}$ |
| Standby power consumption P_C | $\leq 16 \text{ mVA}$ |
| Max. discharge current I_{max} (8/20) μs maximum (L-PE) | 100 kA (per position) |
| Nominal discharge current I_n (8/20) μs (L-PE) | 35 kA (per position) |
| Impulse discharge current (10/350) μs charge | 17.5 As |

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Protective circuit

| | |
|--|---|
| Impulse discharge current (10/350) μ s, specific energy | 305 kJ/ Ω |
| Impulse discharge current (10/350) μ s, peak value I_{imp} | 35 kA (per position) |
| Front of wave sparkover voltage at 6 kV (1.2/50) μ s (L-PE) | ≤ 4.5 kV |
| Voltage protection level U_p (L-PE) | ≤ 4.5 kV |
| Residual voltage (L-PE) | ≤ 2.7 kV |
| | ≤ 2.5 kV (at 20 kA) |
| | ≤ 2.3 kV (at 10 kA) |
| | ≤ 2.2 kV (at 5 kA) |
| | ≤ 2.1 kV (at 3 kA) |
| Response time (L-PE) | ≤ 100 ns |
| Max. backup fuse with branch wiring | 400 A (gG; 2 x 50 mm ²) |
| | 800 A (aR (only up to $I_{imp} = 25$ kA)) |
| Max. backup fuse with V-type through wiring | 125 A (gG; ≥ 35 mm ²) |
| Short-circuit resistance I_p with max. backup fuse (effective) | 50 kA |
| Follow current quenching capacity I_f (L-PEN) | 50 kA |

Connection, protective circuit

| | |
|---------------------------------------|---|
| Connection name | Double terminal point |
| Connection method | Screw connection |
| Screw thread | M6 |
| Tightening torque | 8.5 Nm |
| | 75 lb _f -in. (UL) |
| Stripping length | 24 mm |
| Conductor cross section stranded min. | 16 mm ² |
| Conductor cross section stranded max. | 50 mm ² |
| Conductor cross section solid min. | 16 mm ² |
| Conductor cross section solid max. | 50 mm ² |
| AWG conductor cross section | 6 ... 1/0 |
| | 6 ... 1/0 (UL) |
| Connection name | PE conductor connection |
| Connection method | Ring cable lug |
| | M10 hexagonal head screw (ISO 4017/DIN 933) |
| Screw thread | M10 |
| Tightening torque | 20 Nm |
| | 175 lb _f -in. (UL) |
| Conductor cross section stranded min. | 16 mm ² |
| Conductor cross section stranded max. | 95 mm ² |

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Connection, protective circuit

| | |
|------------------------------------|--------------------|
| Conductor cross section solid min. | 16 mm ² |
| Conductor cross section solid max. | 95 mm ² |
| AWG conductor cross section | 6 ... 3/0 |
| | 3/0 (UL) |

Remote indicator contact

| | |
|---|--|
| Connection name | Remote indicator contact |
| Switching function | N/C contact, 1-pos. |
| Screw thread | M3 |
| Tightening torque | 0.55 Nm |
| | 7 lb _f -in. ... 5 lb _f -in. (UL) |
| Stripping length | 7 mm |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| AWG conductor cross section | 24 ... 12 |
| | 24 ... 12 (UL) |
| Maximum operating voltage U _{max} AC | 30 V AC |
| Maximum operating voltage U _{max} DC | 30 V DC |
| Max. operating current I _{max} | 1.5 A AC |
| | 1.5 A DC |

Standards and Regulations

| | |
|-----------------------|-------------------|
| Standards/regulations | IEC 61643-11 2011 |
| | EN 61643-11 2012 |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
| eCl@ss 4.1 | 27140201 |
| eCl@ss 5.0 | 27140201 |
| eCl@ss 5.1 | 27140201 |
| eCl@ss 6.0 | 27140201 |
| eCl@ss 7.0 | 27140201 |
| eCl@ss 8.0 | 27140201 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000381 |
| ETIM 3.0 | EC000381 |
| ETIM 4.0 | EC000381 |
| ETIM 5.0 | EC000381 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11 | 39121610 |
| UNSPSC 12.01 | 39121610 |
| UNSPSC 13.2 | 39121620 |

Approvals

Approvals


Approvals


IECEE CB Scheme / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / CCA / cULus Recognized


Ex Approvals

Approvals submitted

Approval details

| |
|---|
| IECEE CB Scheme  |
|---|


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|---|
| UL Recognized  |
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| |
|---|
| KEMA-KEUR  |
|---|


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Approvals



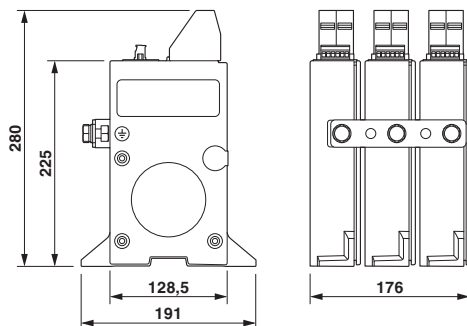
cUL Recognized 

CCA

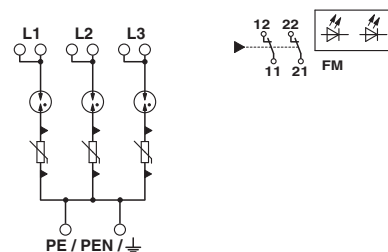
cULus Recognized 

Drawings

Dimensioned drawing

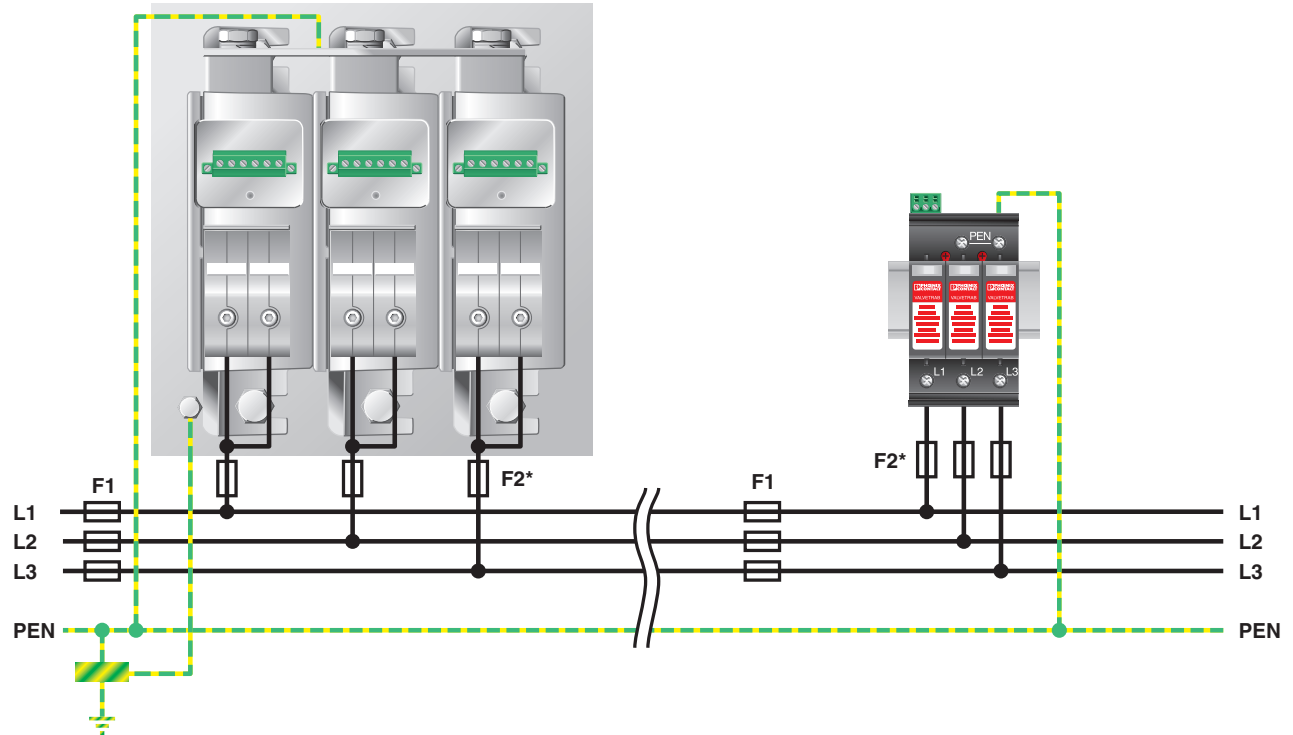


Circuit diagram



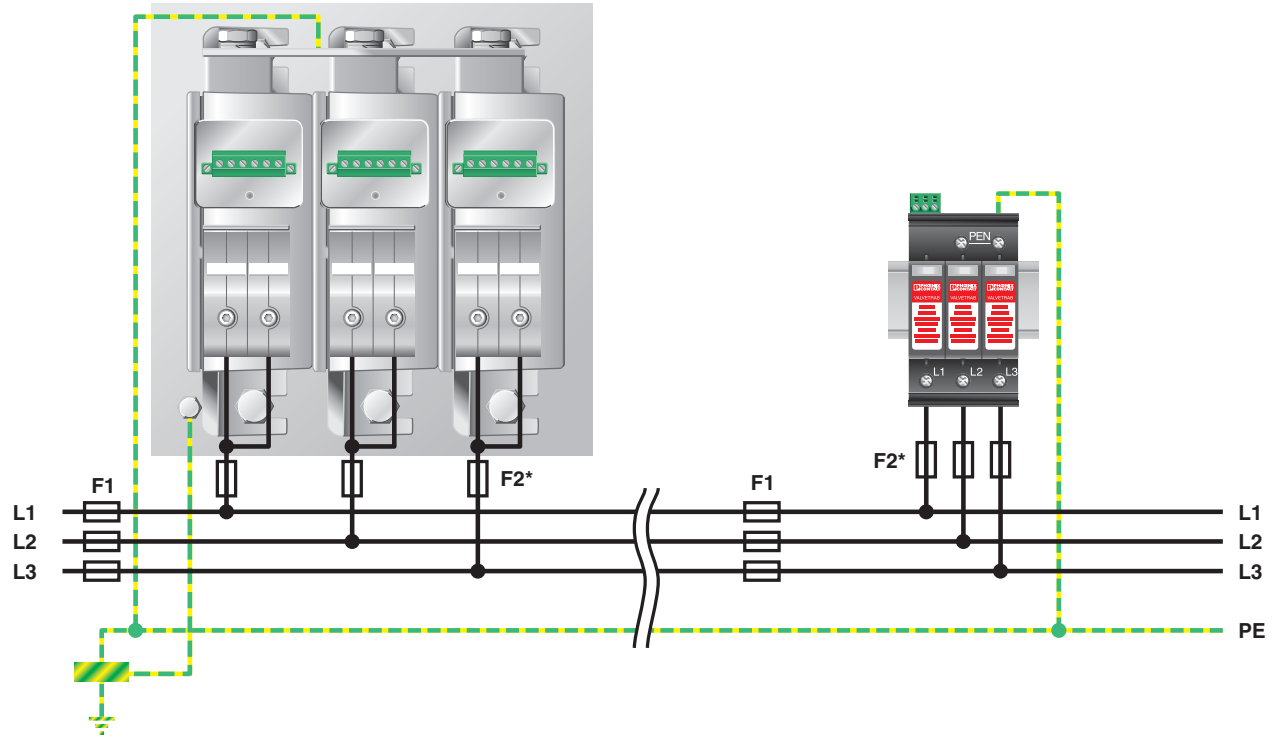
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Application drawing



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Application drawing

