

PD1041

Hardened Surge Protection Device – RJ45



Overview

EtherWAN's PD1041 Hardened Surge Protection Device is designed to protect your EtherWAN Switch investment; however any Ethernet network device can be protected from dangerous electrical surges. Designed for harsh environments, the PD1041 can be placed where you need it to protect your valuable network equipment.

EtherWAN — "When Connectivity is Crucial."

Spotlight

+ Protection Solution Against Voltage Surge + Wide Temperature Range

- Provides pair-to-pair protection through RJ45 connector
- Provides -40 to 75°C operating temperature range for extreme environments

+ Flexible Installation

- Supports DIN-rail or desktop installation

+ Compatible with 10/100BASE-T, Gigabit and PoE products

- Pass-through Data and PoE Power

Specifications

+ Electrical

Maximum continuous operating voltage UC

- $\leq 3.3\text{VDC}$

Maximum continuous voltage UC (Wire-Wire)

- $\leq 3.3\text{VDC}$ ($\pm 60\text{VDC/PoE+}$)

Maximum continuous voltage UC (Wire-Ground)

- $\leq 180\text{VDC}$

Nominal current I_N

- $\leq 1.5\text{A}$ (25°C)

Operating effective current I_C at UC

- $\leq 1\mu\text{A}$

Residual current IPE

- $\leq 8\mu\text{A}$

Nominal discharge surge current I_n (8/20) μs (Core-Core)

- 100A

Nominal discharge surge current I_n (8/20) μs (Core-Earth)

- 2kA (per signal pair)

Total surge current (8/20) μs

- 10kA

Nominal pulse current I_{an} (10/700) μs (Core-Core)

- $\leq 40\text{A}$

Nominal pulse current I_{an} (10/700) μs (Core-Earth)

- 160A

Output voltage limitation at $1\text{kV}/\mu\text{s}$ (Core-Core) spike

- $\leq 85\text{V}$ (PoE)

Output voltage limitation at $1\text{kV}/\mu\text{s}$ (Core-Earth) spike

- $\leq 700\text{V}$

Output voltage limitation at $1\text{kV}/\mu\text{s}$ (Core-Core) static

• **Output voltage limitation at $1\text{kV}/\mu\text{s}$ (Core-Earth) static**

- $\leq 700\text{V}$

• **Output voltage limitation at $100\text{V}/\text{s}$ (Core-Core)**

- $\leq 9\text{V}$

• **Output voltage limitation at $100\text{V}/\text{s}$ (Core-Earth)**

- $\leq 300\text{V}$

• **Output voltage limitation at $100\text{V}/\mu\text{s}$ (Core-Core)**

- $\leq 9\text{V}$

• **Output voltage limitation at $100\text{V}/\mu\text{s}$ (Core-Earth)**

- $\leq 600\text{V}$

• **Residual voltage at I_N , (Conductor-Conductor)**

- $\leq 15\text{V}$
- $\leq 100\text{V}$ (PoE)

• **Voltage protection level Up (Core-Core)**

- $\leq 9\text{V}$ (B2-1kV/25A)
- $\leq 100\text{V}$ (B2-1kV/25A-PoE)
- $\leq 15\text{V}$ (500V/100A)

• **Voltage protection level Up (Core-Earth)**

- $\leq 600\text{V}$
- $\leq 700\text{V}$ (C2-4kV/2kA)

• **Response time t_A (Core-Core)**

- $\leq 1\text{ns}$

• **Response time t_A (Core-Earth)**

- $\leq 100\text{ns}$

• **Input attenuation aE, sym.**

- 1dB ($\leq 250\text{MHz}$)

• **Near-end crosstalk attenuation**

- $\leq 35\text{dB}$ (At $250\text{MHz}/100\Omega$)

• **Cut-off frequency f_g (3dB), sym. in 100Ω system**

- $> 500\text{MHz}$

Capacity (Core-Core)

- **Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)**

- B2 (1kV/25A)

- **Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)**

- B2 (4kV/100A)
- C2 (4kV/2kA)
- D1 (1kA)

+ Mechanical

Casing

- Aluminum Case
- IP20

Dimensions

- 30 x 62.5 x 100mm (W x H x D)
- (1.18" x 2.5" x 3.8")

Weight

- 184g \pm 5%

Installation

- DIN-Rail

Connection

- RJ45 Connector

+ Regulatory Approvals

ISO

- Manufactured in an ISO 9001 facility

Safety

- UL 497B

EMI

- CE
- FCC Part 15 Class B
- VCCI

Industrial Compliance

- IEC 61643-21

+ Environment

Operating Temperature

- -40 to 75°C (-40 to 167°F)

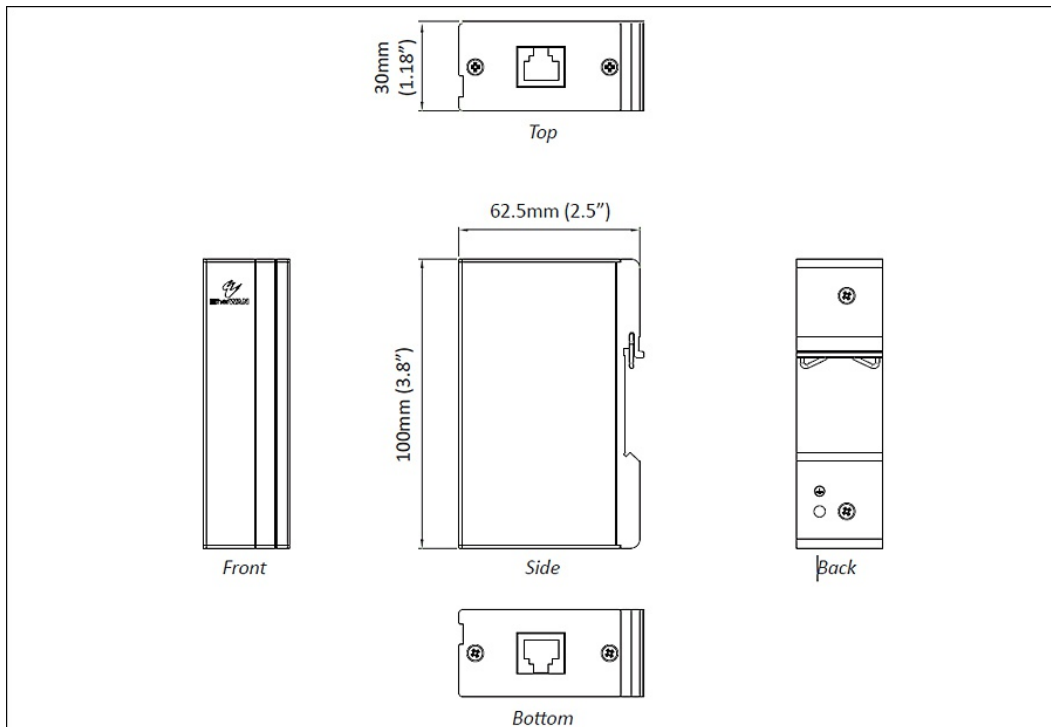
Storage Temperature

- -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity

- 5% to 95% (non-condensation)

Dimensions



Ordering Info

+ Model

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* Note: Cat.6 cable is recommended.

