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**
  - Provides pair-to-pair protection through RJ45 connector
- **Flexible Installation**
  - Supports DIN-rail or desktop installation
- **Wide Temperature Range**
  - Provides -40 to 75°C operating temperature range for extreme environments
- **Compatible with 10/100BASE-T, Gigabit and PoE products**
  - Pass-through Data and PoE Power

Hardware Specifications

Electrical

Maximum continuous operating voltage U_C
- ≤3.3VDC

Maximum continuous voltage U_C (Wire-Wire)
- ≤3.3VDC (±60VDC/PoE+)

Maximum continuous voltage U_C (Wire-Ground)
- ≤180VDC

Nominal current I_N
- ≤1.5A (25°C)

Operating effective current IC at U_C
- ≤1µA

Residual current I_{PE}
- ≤8µA

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)
- ≤40A

Nominal pulse current I_{an} (10/700) µs (Core-Earth)
- ≤160A

Output voltage limitation at 1 kV/µs (Core-Core) spike
- ≤85V (PoE)

Output voltage limitation at 1 kV/µs (Core-Earth) spike
- ≤700V

Output voltage limitation at 1 kV/µs (Core-Core) static
- ≤9V

Output voltage limitation at 1 kV/µs (Core-Earth) static
- ≤700V

Output voltage limitation at 100V/s (Core-Core)
- ≤9V

Output voltage limitation at 100V/s (Core-Earth)
- ≤300V

Output voltage limitation at 100V/µs (Core-Core)
- ≤9V

Output voltage limitation at 100V/µs (Core-Earth)
- ≤600V

Residual voltage at I_N, (Conductor-Conductor)
- ≤15V
- ≤100V (PoE)

Voltage protection level Up (Core-Core)
- ≤9V (B2 – 1kV/25A)
- ≤100V (B2 – 1kV/25A – PoE)
- ≤15V (500V/100A)

Voltage protection level Up (Core-Earth)
- ≤600V
- ≤700V (C2 – 4kV/2kA)

Response time tA (Core-Core)
- ≤1ns

Response time tA (Core-Earth)
- ≤100ns

Input attenuation aE, sym.
- 1dB (≤250MHz)

Near-end crosstalk attenuation
- ≤35dB (At 250MHz/100Ω)

Cut-off frequency fg (3dB), sym. in 100 Ohm system
- >500MHz

Capacity (Core-Core)
- typ. 5pF (f = 1MHz/VR = 0V)

Capacity (Core-Earth)
- typ. 2pF (f = 1MHz/VR = 0V)

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 ±5%

Installation
- DIN-Rail

Connection
- RJ45 Connector

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)

Regulatory Approvals

ISO
- Manufactured in an ISO 9001 facility

Safety

UL 497B

EMI

CE

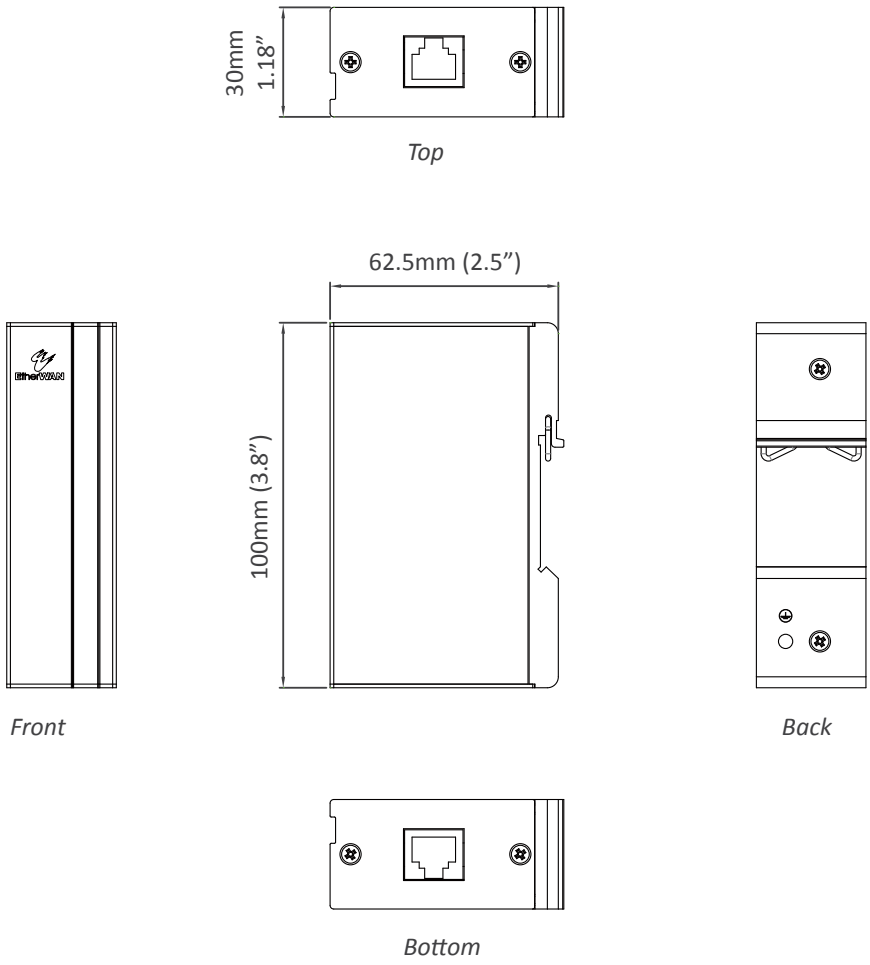
FCC Part 15 Class B

VCCI

Industrial Compliance

IEC 61643-21

Dimensions



Ordering Information

Model

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**Note: Cat.6 cable is recommended.*