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

+ Wide Temperature Range

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

≤3.3VDC

Maximum continuous voltage UC (Wire-Wire)

≤3.3VDC (±60VDC/PoE+)

Maximum continuous voltage UC (Wire-Ground)

≤180VDC

Nominal current IN

≤1.5A (25°C)

Operating effective current IC at UC

≤1μA

Residual current IPE

≤8μA

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

100A

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

2kA (per signal pair)

Total surge current (8/20) μs

10kA

Nominal pulse current Ian (10/700) μs (Core-Core)

≤40A

Nominal pulse current Ian (10/700) μs (Core-Earth)

160A

Output voltage limitation at 1kV/μs (Core-Core) spike

≤85V (PoE)

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

≤700V)

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

≤9V

Output voltage limitation at 1kV/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 IN, (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

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

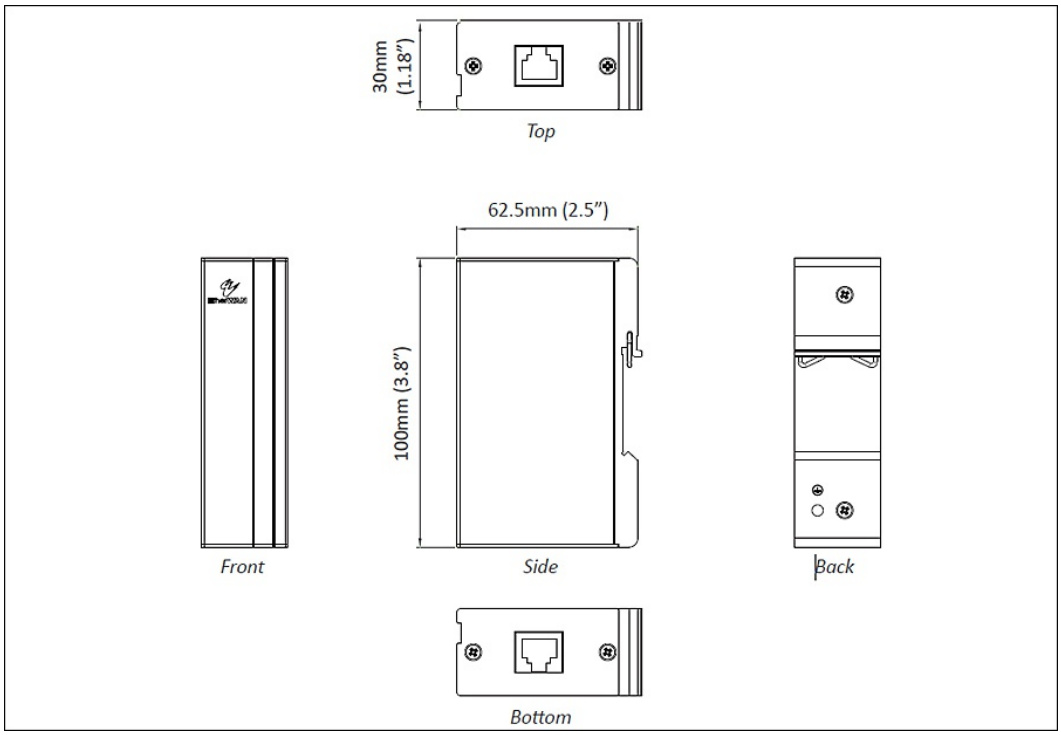
5% to 95% (non-condensation)

MPN

PD1041

1569193

Dimensions



Ordering Info

Model

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* Note: Cat.6 cable is recommended.

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