

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 IN
 $\leq 1.5\text{A}$ (25°C)

Operating effective current IC at UC
 $\leq 1\mu\text{A}$

Residual current IPE
 $\leq 8\mu\text{A}$

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)
 $\leq 40\text{A}$

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

160A

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

$\leq 85V$ (PoE)

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

$\leq 700V$

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

$\leq 9V$

Output voltage limitation at 1kV/ μ s (Core-Earth) static

$\leq 700V$

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

$\leq 9V$

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

$\leq 300V$

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

$\leq 9V$

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

$\leq 600V$

Residual voltage at IN, (Conductor-Conductor)

$\leq 15V$

$\leq 100\text{V}$ (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 a_E , sym.

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

Near-end crosstalk attenuation

$\leq 35\text{dB}$ (At 250MHz/100 Ω)

Cut-off frequency f_g (3dB), sym. in 100 Ohm system

$> 500\text{MHz}$

Capacity (Core-Core)

typ. 5pF ($f=1\text{MHz}/V_R=0\text{V}$)

Capacity (Core-Earth)

typ. 2pF ($f=1\text{MHz}/V_R=0\text{V}$)

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

+ 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

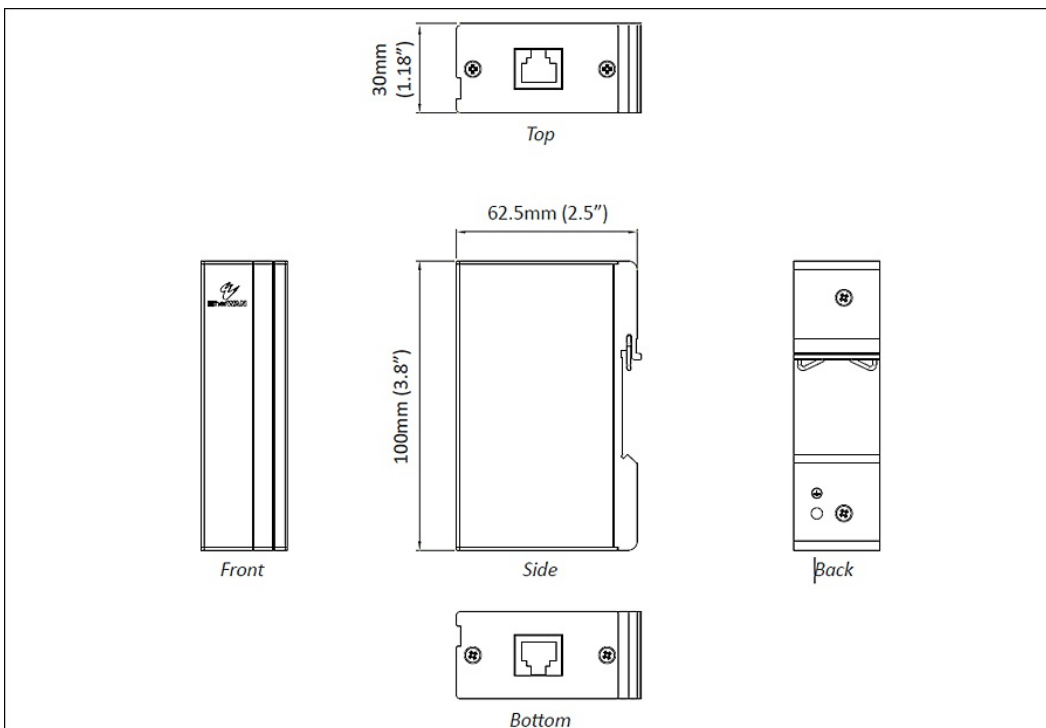
FCC Part 15 Class B

VCCI

Industrial Compliance

IEC 61643-21

Dimensions



Ordering Info

Model

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* Note: Cat.6 cable is recommended.

