

# PD3041

Hardened Surge Protection Device – RJ11 & Two Wire Terminal Block



## Overview

EtherWAN's PD3041 Hardened Surge Protection Device shields DSL equipment from dangerous power surges, ground loops, and electrical discharges caused by faulty wiring or lightning. With full wire-to-wire and wire-to-earth surge protection, the PD3041 is ideal for use in areas that have unstable supplies of electricity, and on sites that have excessive amounts of electromagnetic interference. Applications include outdoor IP cameras and access points, as well as rooftop networking cabinets.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

### + Robust Protection Against Voltage Surges + Wide Operating Temperature Range

Provides pair-to-pair protection through RJ11 connector & terminal block

Operates in temperatures from -40 to 75°C, with throughput under 100Mbps

### + Flexible Installation

Supports DIN-rail or desktop installation

## Specifications

### + Electrical

Maximum continuous operating voltage UC  
 $\leq 185\text{VDC}$

Maximum continuous voltage UC (Wire-Wire)  
 $\leq 185\text{VDC}$

Maximum continuous voltage UC (Wire-Ground)  
 $\leq 185\text{VDC}$

Nominal current  $I_N$   
 $\leq 380\text{mA}$  (25°C)

Operating effective current  $I_C$  at UC  
 $\leq 6\mu\text{A}$

Residual current IPE  
 $\leq 4\mu\text{A}$

Nominal discharge surge current  $I_n$  (8/20)  $\mu\text{s}$   
(Core-Core)  
 $\leq 5\text{kA}$

Nominal discharge surge current  $I_n$  (8/20)  $\mu\text{s}$   
(Core-Earth)  
 $\leq 5\text{kA}$

Total surge current (8/20)  $\mu\text{s}$   
 $10\text{kA}$

Nominal pulse current  $I_{an}$  (10/1000)  $\mu\text{s}$  (Core-Core)  
 $\leq 100\text{A}$

Nominal pulse current  $I_{an}$  (10/1000)  $\mu\text{s}$  (Core-Earth)  
 $\leq 100\text{A}$

Nominal pulse current  $I_{an}$  (10/700)  $\mu\text{s}$  (Core-Core)  
 $\leq 150\text{A}$

Nominal pulse current  $I_{an}$  (10/700)  $\mu\text{s}$  (Core-Earth)  
 $\leq 150\text{A}$

Output voltage limitation at  $1\text{kV}/\mu\text{s}$  (Core-Core)  
spike  
 $\leq 250\text{V}$

Output voltage limitation at  $1\text{kV}/\mu\text{s}$  (Core-Earth)  
spike  
 $\leq 250\text{V}$

Residual voltage at  $I_n$ , (Conductor-Conductor)  
 $\leq 120\text{V}$

Residual voltage at  $I_n$ , (Conductor-Ground)  
 $\leq 120\text{V}$

Voltage protection level UP (Core-Core)  
 $\leq 300\text{V}$  (B2-100A)  
 $\leq 300\text{V}$  (C1-500A)  
 $\leq 300\text{V}$  (C2-5kA)

Voltage protection level UP (Core-Earth)  
 $\leq 300\text{V}$  (B2-100A)  
 $\leq 300\text{V}$  (C1-500A)  
 $\leq 300\text{V}$  (C2-5kA)

Response time  $t_A$  (Core-Core)  
 $\leq 100\text{ns}$

Response time  $t_A$  (Core-Earth)  
 $\leq 100\text{ns}$

Input attenuation aE, sym.  
 Typ. 0.5dB ( $\leq 5\text{MHz}$ )  
 Typ. 0.3dB ( $\leq 8\text{MHz}/150\Omega$ )  
 Typ. 0.3dB ( $\leq 2.5\text{MHz}/600\Omega$ )

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

Cut-off frequency  $f_g$  (3dB), sym. in 100 Ohm system  
 Typ. 50MHz

Resistance in series  
 $3.3\Omega \pm 10\%$

Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)  
 B2 (4kV/100A)  
 C1 (1kV/500A)  
 C2 (10kV/5kA) (Terminal Block)  
 C2 (6kV/3kA) (RJ11)

Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)  
 B2 (4kV/100A)  
 C1 (1kV/500A)  
 C2 (10kV/5kA) (Terminal Block)  
 C2 (6kV/3kA) (RJ11)  
 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**  
 RJ11 Connector / Terminal Block

## + Environment

**Operating Temperature**  
 $-40$  to  $75^\circ\text{C}$  ( $-40$  to  $167^\circ\text{F}$ )

**Storage Temperature**  
 $-40$  to  $85^\circ\text{C}$  ( $-40$  to  $185^\circ\text{F}$ )

**Ambient Relative Humidity**  
 5% to 95% (non-condensation)

## + Regulatory Approvals

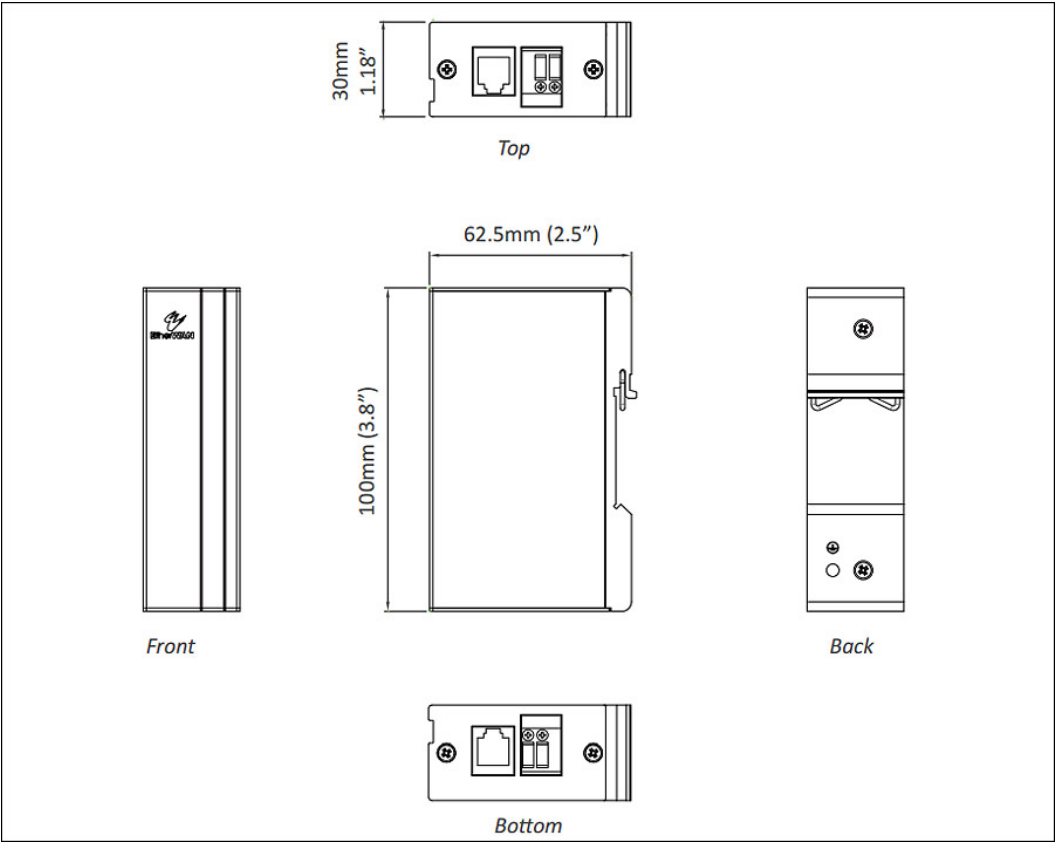
**ISO**  
 Manufactured in an ISO 9001 facility

**Safety**  
 UL 497B

**EMI**  
 CE  
 FCC Part 15 Class B  
 VCCI

**Industrial Compliance**  
 IEC 61643-21

# Dimensions



# Ordering Info

## Model

PD3041	Hardened Surge Protection Device – RJ11 & Two Wire Terminal Block Type
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