

Quick Start Guide

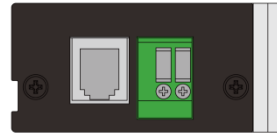
Introduction

This hardened surge protection device protects DSL phone line applications from dangerous electrical surges. Designed for harsh environments, the PD3041 can be installed in almost any location to protect valuable network equipment. Protection of signal pairs is achieved through RJ-11 connector or terminal block.



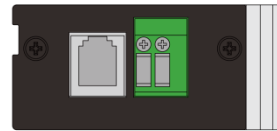
Connections

Top View – Output



RJ11 or Terminal Block: Output door connection to indoor or inside cabinet

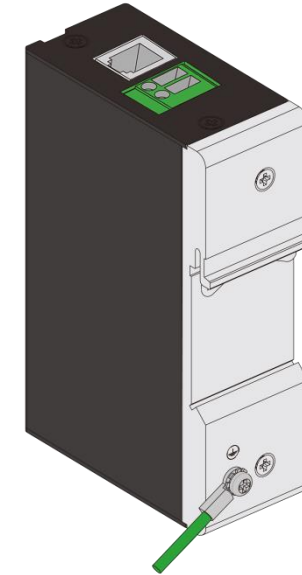
Bottom View – Input



RJ11 or Terminal Block: Input door connection from outdoor or outside cabinet

NOTE: Use either RJ11 or terminal block connector. Do not use both at the same time.

Grounding



For DIN rail installation, the ground is via the DIN rail rack.

For other installations, an extra grounding point is available via the screw and grounding wire.



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 IN: $\leq 380\text{mA}$ (25 °C)
 Operating effective current IC at UC: $\leq 6 \mu\text{A}$
 Residual current IPE: $\leq 4 \mu\text{A}$
 Nominal discharge surge current In (8/20) μs (Core-Core): $\leq 5 \text{ kA}$
 Nominal discharge surge current In (8/20) μs (Core-Earth): $\leq 5 \text{ kA}$
 Total surge current (8/20) μs : 10 kA
 Nominal pulse current Ian (10/1000) μs (Core-Core): $\leq 100\text{A}$
 Nominal pulse current Ian (10/1000) μs (Core-Earth): $\leq 100\text{A}$
 Nominal pulse current Ian (10/700) μs (Core-Core): $\leq 150\text{A}$
 Nominal pulse current Ian (10/700) μs (Core-Earth): $\leq 150\text{A}$
 Output voltage limitation at 1 kV/ μs (Core-Core) spike: $\leq 250 \text{ V}$
 Output voltage limitation at 1 kV/ μs (Core-Earth) spike: $\leq 250 \text{ V}$
 Residual voltage at In, (conductor-conductor): $\leq 120 \text{ V}$
 Residual voltage at In, (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 tA (Core-Core): $\leq 100 \text{ ns}$
 Response time tA (Core-Earth): $\leq 100 \text{ ns}$
 Input attenuation aE, sym.
 Typ. 0.5 dB ($\leq 5 \text{ MHz}$)
 Typ. 0.3 dB ($\leq 8 \text{ MHz} / 150\Omega$)
 Typ. 0.3 dB ($\leq 2.5 \text{ MHz} / 600\Omega$)
 Near-end crosstalk attenuation: $\leq 35 \text{ dB}$ (At 250 MHz / 100 Ω)
 Cut-off frequency fg (3 dB), sym. in 100 Ohm system: Typ. 50 MHz
 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 / 5 kA) (Terminal block)
 C2 (6kV / 3kA) (RJ11)
 D1 (1 kA)

Mechanical

Casing:
 Aluminum case, IP30
 Dimensions:
 62.5 x 100 x 30mm (W x D x H)
 (2.5" x 3.8" x 1.18")
 Weight:
 184 grams (6.5 ounces) $\pm 10\%$
 Installation:
 RJ11 connector / Terminal Block

Environment

Operating Temperature
 -40°C to 75°C (-40°F to 167°F)
 Storage Temperature
 -40°C to 85°C (-40°F to 185°F)
 Humidity:
 5% to 95%, non-condensation

5% to 95%, non-condensation

Regulatory Approvals

Manufactured in an ISO 9001 facility
 EMI: CE, FCC Part 15 Class B, VCCI
 TUV:
 IEC61643-21
 UL:
 UL497B

Mechanical Drawings

