



Features

- GDT-TBU® High-Speed Protector technology
- Low impulse voltage let-through
- Low impulse current let-through
- High surge current rating
- 10/100/1000 Mbps data compatibility
- Transparent to Mode A or Mode B
- Compatible with Class 4 power levels
- UL Listed per E153537 Vol 2 Sec 2

Applications

- Data communications
- Highly exposed Ethernet
- Telecommunication and indoor industrial installations
- Surveillance cameras
- Remote power and communication

1530-1 Series PoE Ethernet Surge Protector

The Bourns® Model 1530-1 Series Commercial PoE Ethernet Surge Protectors incorporate state-of-the-art gas discharge tube and surge limiting technologies to provide the highest protection level offered by Bourns. The Model 1530-1 Series is designed to meet applicable Telcordia GR-1089 Level 1 and Level 2 Surge and AC Power Fault specifications on the data signal line while allowing operations up to 35 watts (employing both Mode A and B combination) at 57 volts. The Model 1530-1 Series enclosure is flame retardant and manufactured with a high impact resistant plastic.

Characteristics

Test methods per UL 497B, GR-1089, CSA C22.2, IEC 61000-4-5, and IEEE 802.3at.

Parameter	Commercial Model 1530-1
DC Breakdown on Data Lines	150 V Typical Input / 7 V Typical Output
DC Breakdown - Power Lines	< 200 V Typ.
Power Rating	35 W
Line Series Resistance (Loop)	~ 6 Ω Typ.
Line Series Balance	0.5 Ω Typ. / 1.0 Ω Max
Capacitance Line to Line @ 1 MHz	10 pF Typ.
BER Performance Testing 10/100/1000 Mbps	> 100 meters
Surge Response Time	< 1 μs
Surge Limiting Performance Let-Through Voltage Let-Through Current	< 60 V < 1 A
First Level Surge 1 kV – 10/1000 μs, 100 A 2.5 kV – 2/10 μs, 500 A 800 V – 1.2/50 μs, 8/20 μs Combo Wave	> 10 operations > 10 operations > 10 operations
Second Level Surge 2.5 kV – 2/10 μs, 500 A, Inductive Kick ¹ 6 kV / 3 kA – 1.2/50 μs, 8/20 μs ¹ Combo – 10/1000 μs, 100 A	1 operation 1 operation > 10 operations
First Level Power Fault 220 mA Below Protection Threshold 600 V / 1 A / 1 Second 1000 V / 1 A / 1 Second 425 V / 0.5 A / 4 Seconds	15 minutes > 60 operations > 60 operations > 1 operation
Second Level Power Fault 120 V / 25 A ¹ 425 V / 40 A / 1.5 Second ¹ 425 V / 7 A / 5 Seconds ¹ 425 V / 2.2 A ¹	15 minutes 1 operation 1 operation 15 minutes
Storage and Effective Temperature	-40 to +65 °C
UL Flame Rating	94 V0
Ingress Protection Ratings	20

Notes:

UL Listed component, UL File E153537

1) Fuse may fail open and disconnect from circuit.



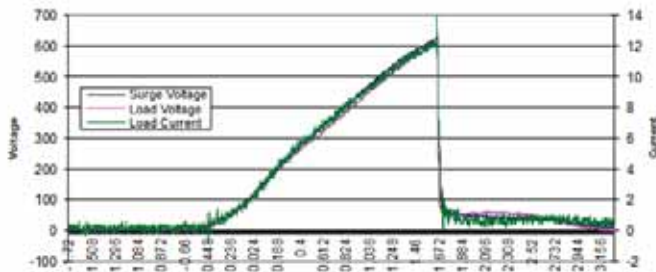
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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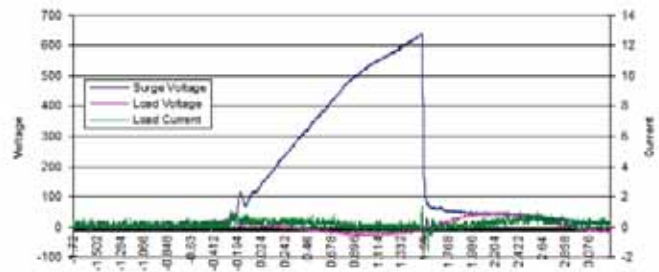
1530-1 Series PoE Ethernet Surge Protector



Performance Graphs



WITHOUT Bourns® Active Surge Limiting Technology



WITH Bourns® Active Surge Limiting Technology

* With impulse input @ 10/1000 μ s, 1.5 kV, 100 A.

- A. Applied to inputs Tip (A) or Ring (B) in reference to Ground (Earth) and measured at outputs Tip (A) or Ring (B) in reference to Ground (Earth) with 50 ohms load.
- B. Applied between inputs Tip (A) or Ring (B) and measured between outputs Tip (A) or Ring (B) with 50 ohms load.

Wiring / Pin-Out Information

(Default T568B Wiring Scheme Silkscreened on PCB.)

Pin No.	T568A Wire Color	T568B Wire Color	Data Line Information	Power Line Information
Pin 1	White / Green Stripe	White / Orange Stripe	TxRx A+	DC +
Pin 2	Green Solid	Orange Solid	TxRx A-	DC +
Pin 3	White / Orange Stripe	White / Green Stripe	TxRx B+	DC -
Pin 6	Orange Solid	Green Solid	TxRx B-	DC -
Pin 4	Blue Solid	Blue Solid	TxRx C+	DC +
Pin 5	White / Blue Stripe	White / Blue Stripe	TxRx C-	DC +
Pin 7	White / Brown Stripe	White / Brown Stripe	TxRx D+	DC -
Pin 8	Brown Solid	Brown Solid	TxRx D-	DC -

How to Order

Model Number

- 1530-1DDIN Rail Mount, No Ground Wire
- 1530-1D-WDIN Rail Mount, with Ground Wire
- 1530-1-WWall Mount, with Ground Wire

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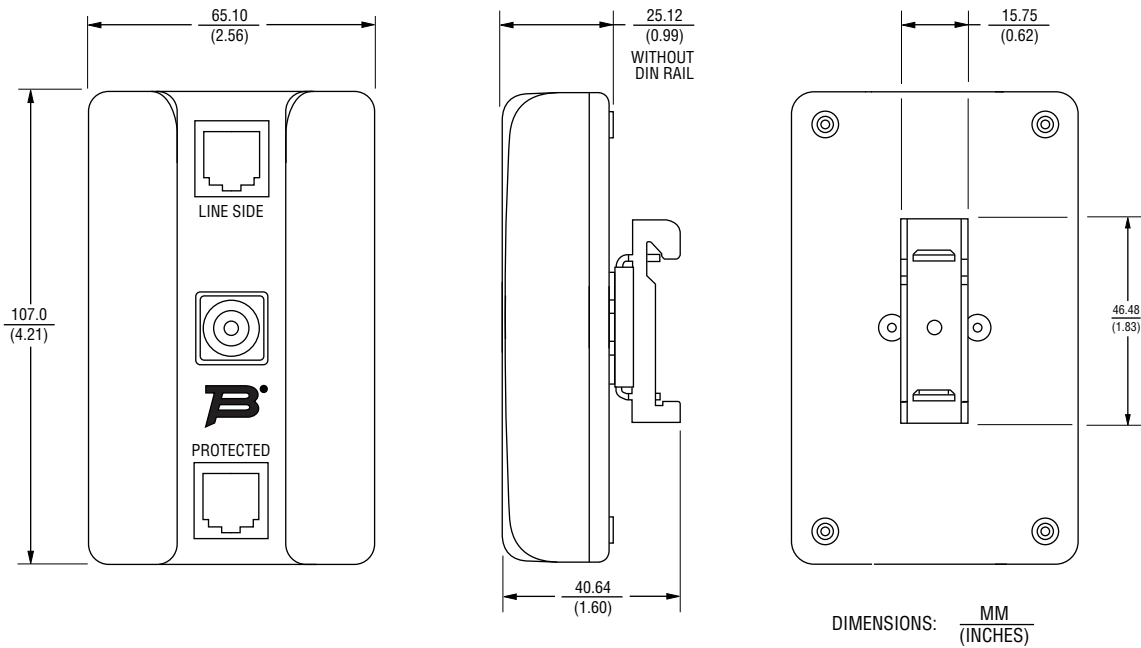
Users should verify actual device performance in their specific applications.

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1530-1 Series PoE Ethernet Surge Protector

BOURNS®

Product Dimensions



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