




Features

- Multi-Stage Protection (MSP®)
- Balanced TRIGARD® GDT
- Self-resetting sneak current protection with Bourns® TBU® devices
- Overcurrent and overvoltage protection
- Quick response to surges
- High energy handling
- Switch-Grade Fail-Short
- Insulation Displacement Connectors (IDCs)
- High-speed network compatible such as ADSL2+ and VDSL2
-  UL LISTED UL Listed per UL 497 (File: E53117)

2377 MSP®/TBU® Series DigiGuard® Station Protector

Bourns® 2377 MSP®/TBU® series is a new generation telecommunications station protector designed to be the best choice for protection of high-speed network data circuits. Bourns® 2377 MSP®/TBU® series protectors integrate four advanced technologies: our proprietary advanced TRIGARD® GDT, precision matched metal oxide varistors (MOVs), a switch-grade fail-short mechanism, and our TBU® (Transient Blocking Unit) technology which protects the circuit by rapidly switching to a blocking state. These technologies are combined to provide robust overvoltage and fast, resettable sneak current protection with extremely low energy let-through. Additionally, the MSP®/TBU® series has very low loss characteristics, making it the ultimate choice for protection of sensitive, high speed communication lines.

A continuous DC bias such as sealing current or remote powering (span powering) can hold the TBU® device in a high resistance blocking state after the fault has passed. The TBU® device can be reset by momentarily disrupting the loop current or providing a low voltage (V_{reset}) condition on the line.

Characteristics

Test Methods per IEEE C62.31, UL 497, CSA C22.2, Telcordia GR 1361 and applicable sections of Telcordia GR 974.

DC Breakdown	300-400 V
AC Breakdown	60 Hz 300-400 V
Impulse Breakdown.....	100 V/ μ s 600 V
	1000 V/ μ s 650 V
Insulation Resistance	100 Vdc > 1 G Ω
Insertion Loss	100 MHz < 0.4 dB (Category 5)
Return Loss	100 MHz > 14 dB (Category 5)
Capacitance Line to Line.....	1 MHz 14 pF typical
Capacitance Line to Ground	1 MHz 28 pF typical
Line Resistance	12 ohms typical
Impulse Reset ¹	52 V, 260 mA < 10 ms ³
	135 V, 200 mA < 10 ms ³
	150 V, 200 mA < 150 ms
Impulse Life Characteristics	100 A, 10/1000 μ s > 3000 operations ²
(Per Side, Simultaneously)	300 A, 10/1000 μ s > 1000 operations ²
	500 A, 10/1000 μ s > 1000 operations ⁴
	2,000 A, 10/250 μ s > 100 operations ²
	5,000 A, 20/100 μ s > 10 operations ²
	20,000 A, 8/20 μ s > 1 operation
AC Life Characteristics.....	0.5 A rms continuous > 30 seconds
	1 A rms, 1 second, 600 ft. cable > 60 operations
	1 A rms, 1 second, 1 mile cable..... > 60 operations
	10 A rms, 1 second > 20 operations
	200 A rms, 11 cycles..... 1 operation ⁵
	120 A rms, 0.1 second 1 operation
Life Test Criteria	
Insulation Resistance Throughout the Life Test	100 megohms
Life Test Failures	0.0 %
Failures During Environmental Cycling w/surges.....	0.0 %
Fail-Short (Vented or Non-vented Gas Tube)	> 30 Arms, simultaneously
Operating Temperature.....	-55 to +85 °C

Notes:

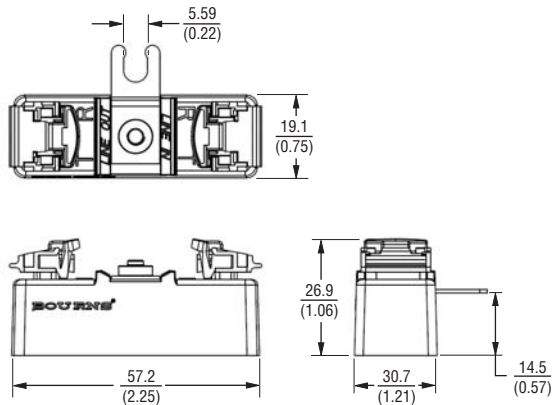
- ¹ Network applied.
 - ² Exceeds Telcordia (Bellcore) GR 1361.
 - ³ Surpasses Telcordia GR 974.
 - ⁴ RUS (REA) PE-80.
 - ⁵ Protector may short to ground.
- Line to Line voltage is approximately 1.8 to 2 times the stated Line to Ground breakdown voltage.

Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

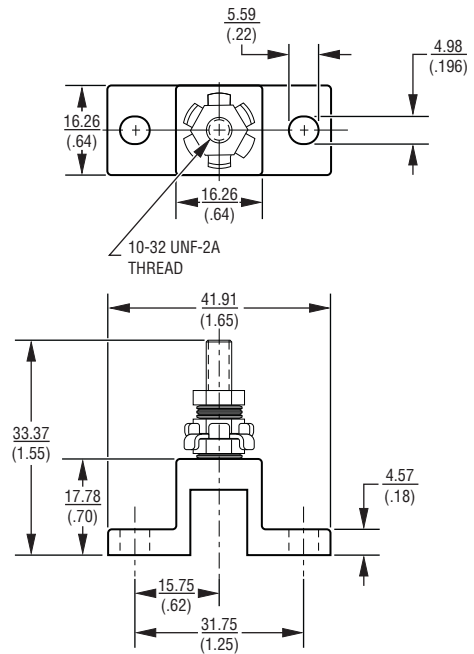
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Product Dimensions



2372-02 Ground Mounting Stud (Order Separately)



DIMENSIONS: $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$

How To Order

- 2377-45-HS-TBU Standard Model
- 2377-45-BC-TBU* Balanced Capacitance

*BC versions are for xDSL systems that require Tip-to-Ground and Ring-to-Ground capacitive balance of ≤ 1 pF.

Related Products

-  80052 Test Clip for IDC
-  80053 Insulation Tool for IDC



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