1260 Series
AC Hybrid Surge Protective Device
INSTALLATION INSTRUCTIONS

BOURNS®

General Information

The Bourns® Model 1260 series is defined as a high performance surge protection solution for most commercial and industrial environments with critical operations, and IEC/EN 61643-11 Class I+ Class II / T1 +T2 protection against the harmful effects of transient surges. These surges are the result of:

- Direct and indirect lightning strikes
- Power company load switching
- Upstream load switching at other facilities

This unit is intended for point-of-entry or sub-board protection and should be connected in parallel with the power system.

WARNING!

Only qualified personnel should install or service this system. Electrical safety precautions must be followed when installing or servicing this equipment. To prevent risk of electrical shock, turn off and lock out all power sources to the unit before making electrical connections or servicing.

For proper and safe operation, neutral and ground MUST be reliably connected. Failure to operate this unit from a solidly grounded power source of the proper configuration will reduce or impede operation, and may result in unit failure.

Installation

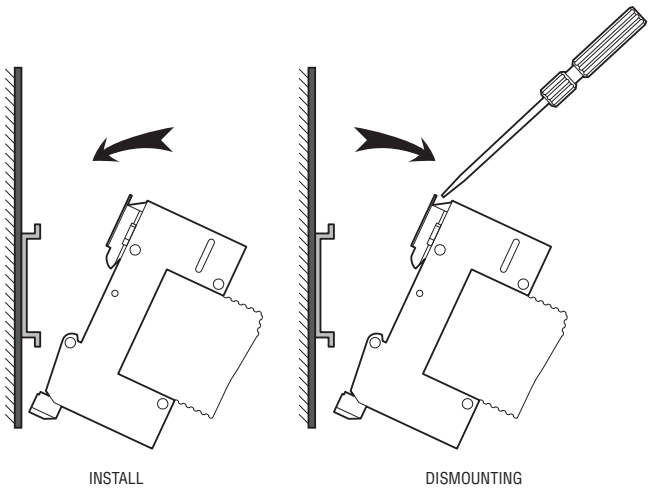

Fig.1: SPD mounting on DIN-Rail

1. When installing or replacing the SPD, it must be in a de-energized condition.
2. Install the DIN mounting rail (35 mm, re: EN 50022).
3. Snap-lock the SPD to the rail.
4. Connect wiring to the indicated terminals.
5. Ensure compliance with supplied instructions.
6. Apply power and observe correct operation of status indicators and, if utilized, remote alarm facilities.
7. Never Hi-Pot test any SPD. (This will cause premature failure or damage to the SPD.)

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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Actual product may differ from image shown.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.

Wiring Connections

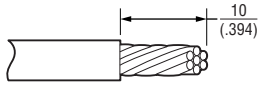
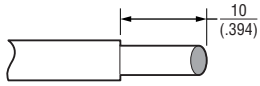
Conductor Type		
Min. Cross-section	L&N terminal: #12AWG (4 mm²) PE terminal: #10AWG (6 mm²)	
Max. Cross-section	#4AWG or 25 mm² (stranded)	#2AWG or 35 mm² (solid)
Insulation Stripped Back	0.4 in. or 10 mm	

Table 1: Connection wire size

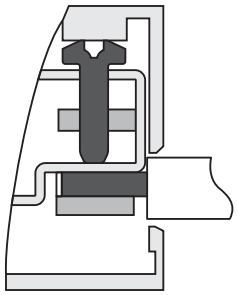
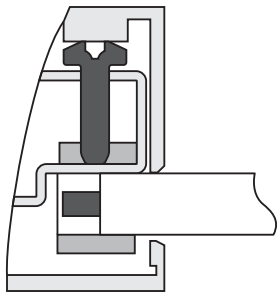
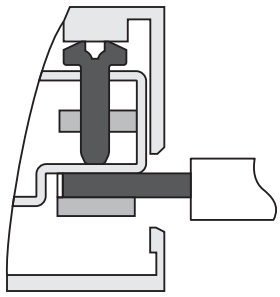
Correct	Incorrect
	
	Insulation not cut back enough
	
	Insulation cut back too far

Fig. 2: Tightening the terminal

Before making connections to the unit, verify that the unit model number and nameplate voltage rating are appropriate for connection to the intended power source.

For best performance, the unit should be positioned so that the length of the wiring to the Surge Protective Device (SPD) unit is minimized.

Each SPD terminal is designed to accept wire sizes from #12AWG (4 mm²) to #2AWG (35 mm²) solid conductor or #4AWG (25 mm²) stranded conductor.

Insulation should be stripped back 10 mm before terminating into tunnel terminal.

Do not use excessive force when tightening the terminal; 2 ~ 2.5 Nm (18-22 lb-in) is recommended.

WARNING!

Select the proper Bourns® SPD unit according to your system voltage, configuration, and the anticipated surge environment.

Prior to installing the SPD, ensure that your facility's electric supply system is properly installed and connected in accordance with all applicable national and local codes and safety procedures.

Status Indicator & Remote Signal

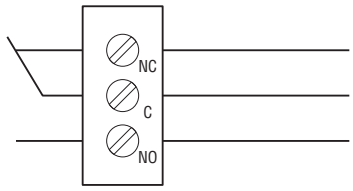
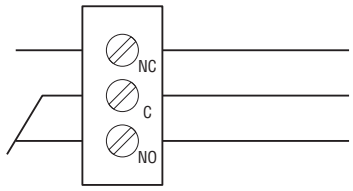
Remote Signal Contact	
	
Normal	Fault (Needs to be Replaced)

Table 2: Remote signal contact indication

A characteristic of all transient and surge protection devices is that they degrade in proportion to the magnitude and number of surge incidents to which they have been subjected. Status indication should be periodically monitored to determine if replacement is required. When the SPD indicator window turns **RED**, the remote signal contact closes between C (common) and NO (normally open). The pluggable module should be replaced as soon as possible.

Product Ratings & Limitations

Class I / Class II SPD – Class I SPDs are installed at the service entrance to handle direct lightning strikes, while Class II SPDs are positioned throughout the internal electrical system to mitigate transient overvoltages from various sources. The IEC 61643-11 standard provides guidelines for the proper installation and coordination of these SPDs to ensure comprehensive surge protection.

Voltage Protection Level – The Voltage Protection Level (Up) in the context of the IEC 61643 standard refers to the maximum voltage that a Surge Protective Device (SPD) allows to pass through to the protected equipment or system during a surge event. Up is a critical parameter that determines the SPD's ability to limit the voltage spike and ensure that the protected equipment remains within safe operating levels.

Troubleshooting

If any of the diagnostic indicators reveal a problem, check all connections and voltages to the unit. If all connections are made and reliable, and proper voltages are supplied to the unit, please contact www.bourns.com.

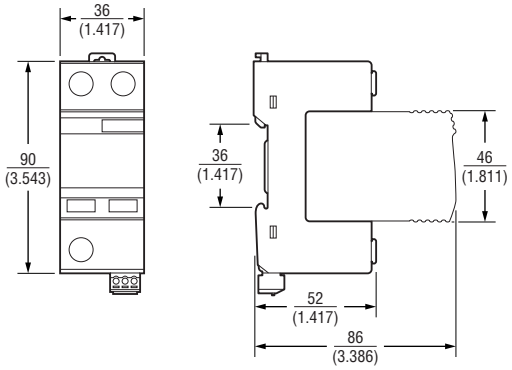
NOTE

This guide is not comprehensive. It is assumed that the user will follow established safety precautions for working in an electrical environment. For more information on safety precautions and procedures, please consult the related organizations listed below.

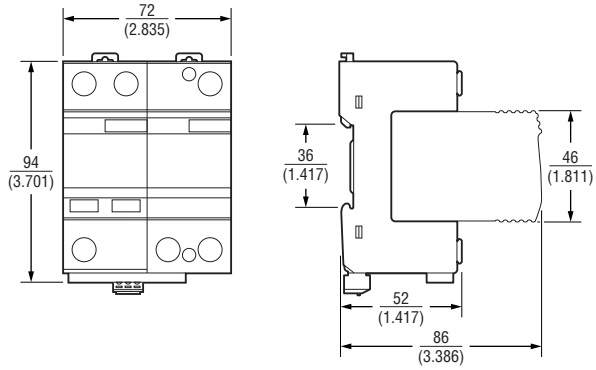
- Underwriters Laboratories (UL)
- American National Standards Association (ANSI)
- Institute of Electrical and Electronics Engineers (IEEE).
- National Fire Protection Association (NFPA)
- National Electrical Mfgrs. Association (NEMA)
- International Electrotechnical Commission (IEC)

Product Dimensions

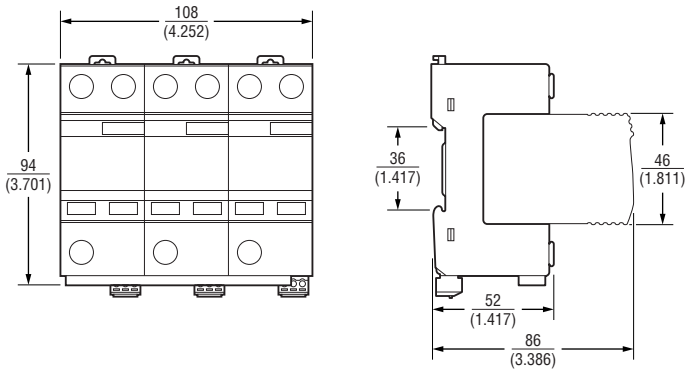
Single Pole



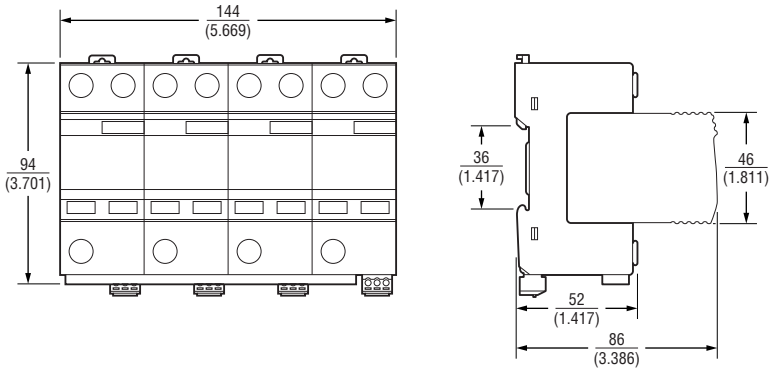
Two Poles



Three Poles



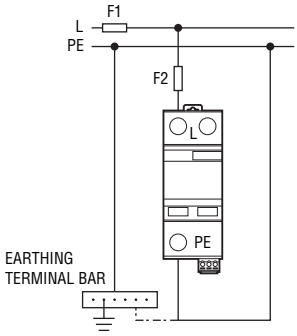
Four Poles



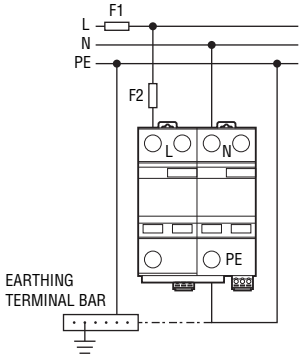
DIMENSIONS: MM (INCHES)

Power Distribution and SPD Connection

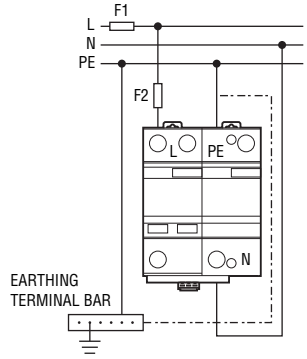
1P



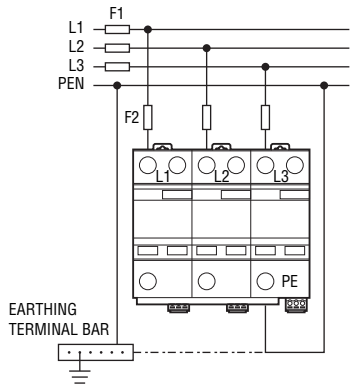
2P (2+0) for single phase (TT/TN)



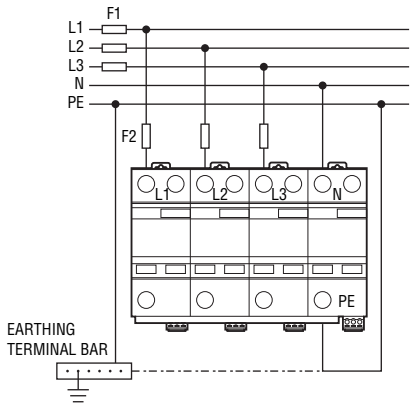
2P (1+1) for single phase (TT/TN)



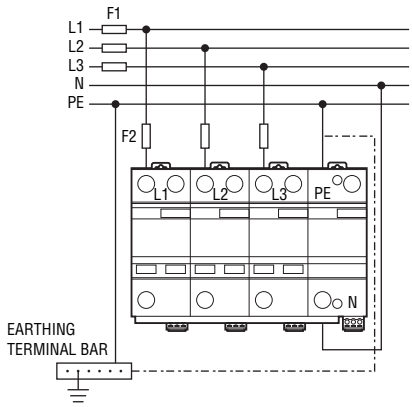
3P (3+0) for 3 phases (TN-C/IT)



4P (4+0) for 3 phases (TN/TT)



4P (3+1) for 3 phases (TN/TT)



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