



## Features

- Complies with UL 1449 and IEC/EN 61643-11 standards
- UL recognized Type 4, Type 1 location SPD, passed short circuit current rating (SCCR) 200 kA without external fuse or CB
- High reliability protected MOV with Advanced Thermal Disconnecter (TD+)
- Large surge energy capability up to 50 kA per mode
- Pluggable module for easy replacement

## 1250A Series General Duty AC Surge Protective Device

### General Information

The Bourns® Model 1250A Series is a general duty Surge Protective Device (SPD) designed to protect high-risk electrical service entrance and branch panels. This SPD is intended to be installed at the front end of the installation, in the main switchboard, close to sensitive terminals or in installations without LPS (lightning rods).

The Model 1250A Series can be configured for both common mode and differential mode protection, in single and three phase applications.

### Additional Information

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### Electrical Characteristics

Characteristic		Model No.					
		1250A-xS-120	1250A-xS-230	1250A-xS-277	1250A-xS-400	1250A-xS-480	1250A-xS-600
AC Network		120 / 240 V 120 / 208 V	220 / 380 V 230 / 400 V	240 / 415 V 277 / 480 V	277 / 480 V 347 / 600 V	347 / 600 V 480 V (Delta)	600 V (Delta)
Compliance		UL1449; EN/IEC 61643-11					
Category UL/EN/IEC		Type 4, Type 1 location / T2 / Class II					
Product Technologies		High energy MOV Technology Advanced Thermal Disconnecter (TD+)					
Connection Mode		1-Pole, L-N or L-G or N-PE					
AC System		IT, TT, TN, Single, Split Phase, Delta, Wye					
Max. Operating Voltage (MCOV)		150 V	275 V	320 V	420 V	550 V	690 V
Leakage Current at Uc		< 1 mA					
Follow Current		None					
UL 1449	Nominal Discharge Current 8/20 $\mu$ s (In)	20 kA					
	Max. Discharge Current (Imax) 1 Impulse 8/20 $\mu$ s	50 kA					40 kA
	Voltage Protection Rating (VPR)	$\leq 0.7$ kV	$\leq 1.0$ kV	$\leq 1.2$ kV	$\leq 1.5$ kV	$\leq 1.8$ kV	$\leq 2.5$ kV
	Short-Circuit Current Rating (SCCR)	200 kA <sub>rms</sub>					
EN/IEC 61643-11	Nominal Discharge Current 8/20 $\mu$ s (In)	20 kA			n/a		
	Max. Discharge Current (Imax) 1 Impulse 8/20 $\mu$ s	40 kA			n/a		
	Protection Level (Up)	$\leq 0.8$ kV	$\leq 1.4$ kV	$\leq 1.5$ kV	n/a		
	Short-Circuit Current Rating (SC)	10 kA <sub>rms</sub>			n/a		



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.  
See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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.

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## Applications

- Electrical service entrance
- Branch panels
- All power circuits
- Heavy industrial
- EV charging stations

## 1250A Series General Duty AC Surge Protective Device

**BOURNS®**

### General Characteristics

Characteristic	Model No.					
	1250A-xS-120	1250A-xS-230	1250A-xS-277	1250A-xS-400	1250A-xS-480	1250A-xS-600
Thermal Disconnect	UL 60691					
Overcurrent Protection	Time Delay - 125 A Max.					
Connection	By Screw Terminal: Single-strand #2 AWG or 35 mm <sup>2</sup> ; multi-strand #4 AWG or 25 mm <sup>2</sup>					
Dimensions	See Product Dimensions					
Mounting	DIN Rail, 35 mm Symmetrical					
Remote Signal Indicator	250 VAC Max., 0.5 A					
Enclosure Material	Thermoplastic UL 94V0					


### Environmental Characteristics

Characteristic	Model No.					
	1250A-xS-120	1250A-xS-230	1250A-xS-277	1250A-xS-400	1250A-xS-480	1250A-xS-600
Operating Temperature	-40 °C to +85 °C					
Operating Altitude	≤ 2000 m					
Relative Humidity	5 to 95 % Non-condensing					
Environmental Rating	IP 20					

### Standards Compliance

IEC/EN 61643-11..... Class II , Type 2  
 UL1449..... Type 4, Type 1 location  
 CSA C22.2..... Type 4, Type 1 location  
 IEEE C62.41  
 RoHS..... RoHS Directive 2015/863, Mar 31, 2015 and Annex

### Agency Recognition

Agency	Category	Agency File No.
	UL1449 - 5th Ed.	<a href="#">E313168</a>

### How to Order

**1250A - x S - xxx**

Model Designator \_\_\_\_\_  
 1250A = Advanced Version of 1250 Series

Configuration (number of poles) \_\_\_\_\_  
 1 = One Protected Pole  
 2 = Two Protected Poles  
 3 = Three Protected Poles  
 4 = Four Protected Poles

Remote Signaling Code \_\_\_\_\_  
 S = Remote Signaling

Operating Voltage \_\_\_\_\_  
 120 = 120/240 V, 120/208 V  
 230 = 220/380 V, 230/400 V  
 277 = 240/415 V, 277/480 V  
 400 = 277/480 V, 347/600 V  
 480 = 347/600 V, 480 V (Delta)  
 600 = 600 V (Delta)

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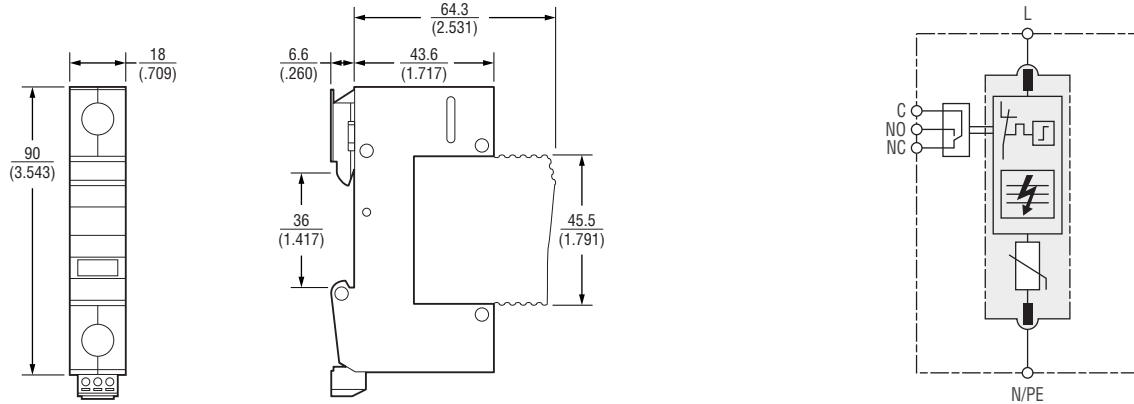
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# 1250A Series General Duty AC Surge Protective Device

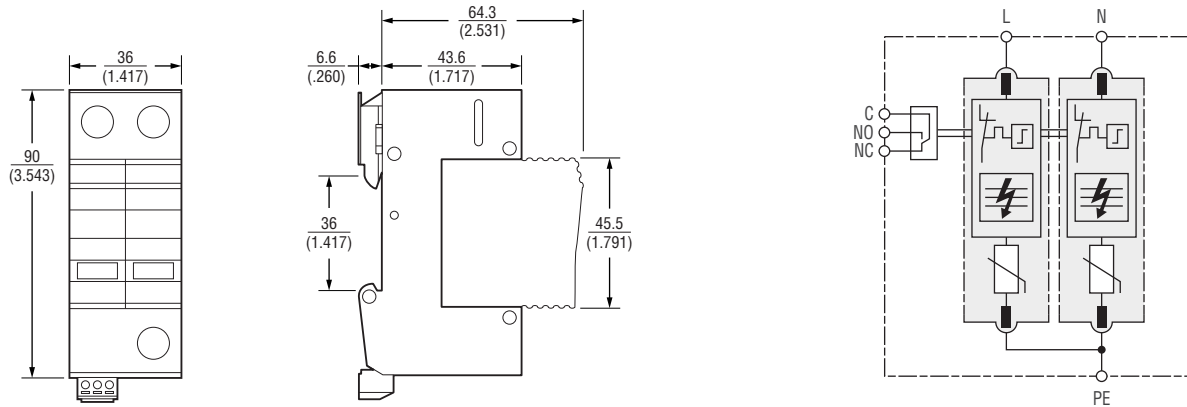
**BOURNS®**

## Product Dimensions and Schematics

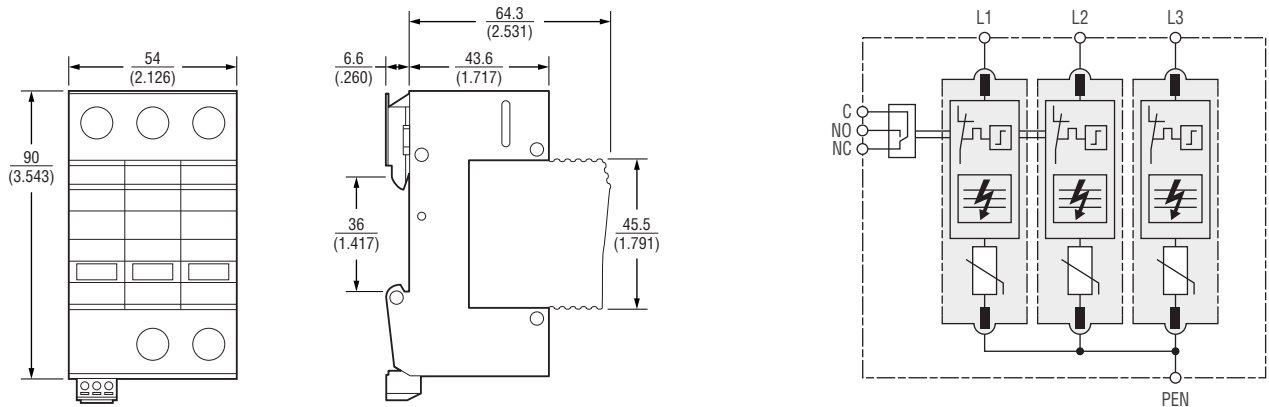
1P



2P



3P



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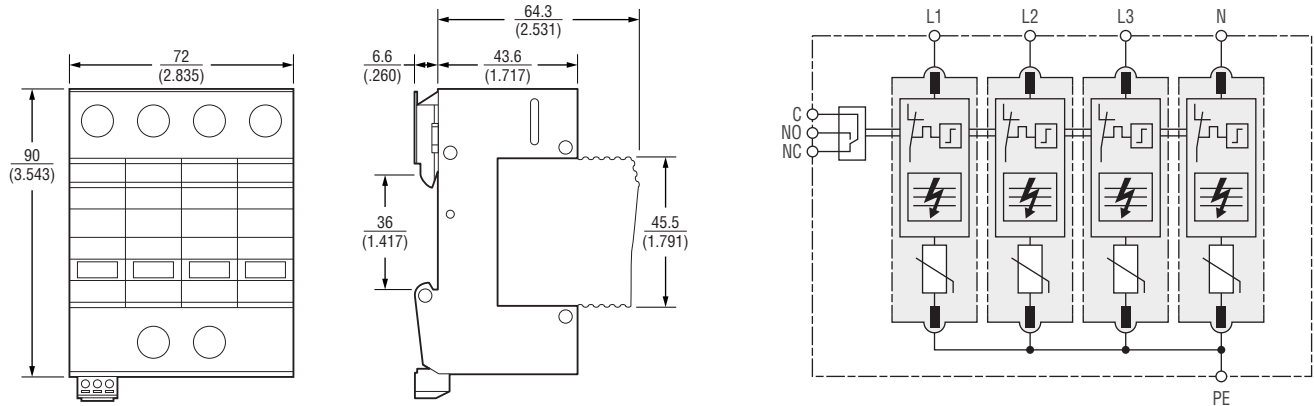
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## 1250A Series General Duty AC Surge Protective Device

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### Product Dimensions and Schematics

4P



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