



Features

- 100 kA max. discharge current rating
- Multi-pole uni-block design
- DIN Rail mountable
- UL 60691 compliant integrated thermal disconnect
- Visual fault indicator
- Remote signalling capability
- Compact design ideal for limited spaces
- Standards compliance:
- RoHS compliant*

1210 Series Heavy Duty AC Surge Protective Device

General Information

The Bourns® Model 1210 Series is a heavy 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 1210 Series is a single-pole module that can be configured for both common mode and differential mode protection in single and three phase applications up to 600 V.

Additional Information

Click these links for more information:



[PRODUCT](#)



[TECHNICAL
LIBRARY](#)



[INVENTORY](#)



[SAMPLES](#)



[CONTACT](#)

Electrical Characteristics

Characteristic	Model No.			
	1210-xS-120	1210-xS-230	1210-xS-400	1210-xS-600
AC Network	120/240 V, 120/208 V	220/380 V, 240/415 V	220/380 V, 277/480 V, 347/600 V	480 V, 600 V
Connection Mode	1-Pole, L-N or L-G			
AC System	IT, TT, TN, Single, Split Phase, Delta, Wye			
Max. Operating Voltage (MCOV)	150 V	275 V	420 V	840 V
TOV Withstand	230 V	440 V	770 V	1117 V
Leakage Current at U_c	< 1 mA			
Follow Current	None			
UL Nominal Discharge Current (I_n) 15 Impulses 8/20 μ s	20 kA			
Max. Discharge Current (I_{max}) 1 Impulse 8/20 μ s	100 kA			
UL Voltage Protection Rating (VPR)	600 V	900 V	1200 V	3000 V
Protection Level (Up)	0.9 kV	1.25 kV	1.8 kV	4.0 kV
UL Short-Circuit Current Rating (SCCR)	100kAIC			

General Characteristics

Characteristic	Model No.			
	1210-xS-120	1210-xS-230	1210-xS-400	1210-xS-600
Thermal Disconnect	UL 60691			
Overcurrent Protection	Time Delay - 125 A Max.			
Connection	By Screw Terminals, #6 AWG Max.			
Dimensions	90 x 18 x 67 mm / (3.543 x 0.709 x 2.638 in.)			
Mounting	DIN Rail, 35 mm Symmetrical			
Remote Signal Indicator	250 V Max., 2 A			
Enclosure Material	Thermoplastic UL 94V0			

Environmental Characteristics

Characteristic	Model No.			
	1210-xS-120	1210-xS-230	1210-xS-400	1210-xS-600
Operating Temperature	-50 °C to +85 °C			
Operating Altitude	13,000 ft. (4,000 m)			
Relative Humidity	5 to 95 % Non-condensing, up to 100 % External			
Environmental Rating	IP 20			

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Applications

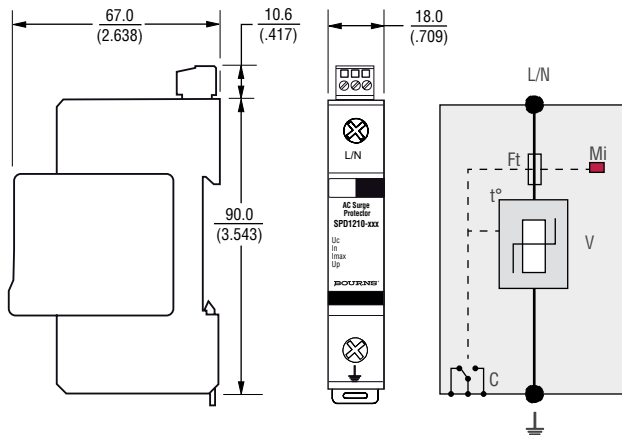
- Electrical service entrance
- Branch panels

1210 Series Heavy Duty AC Surge Protective Device

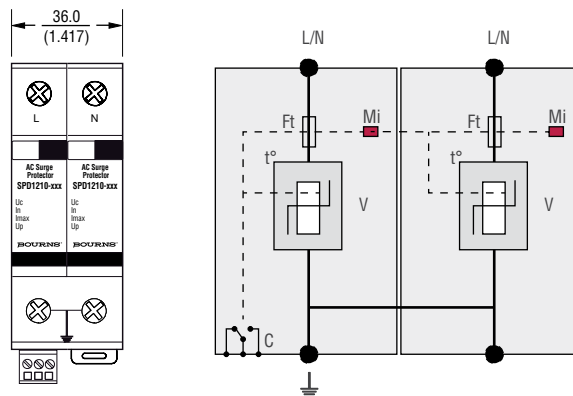
BOURNS®

Product Dimensions and Schematics

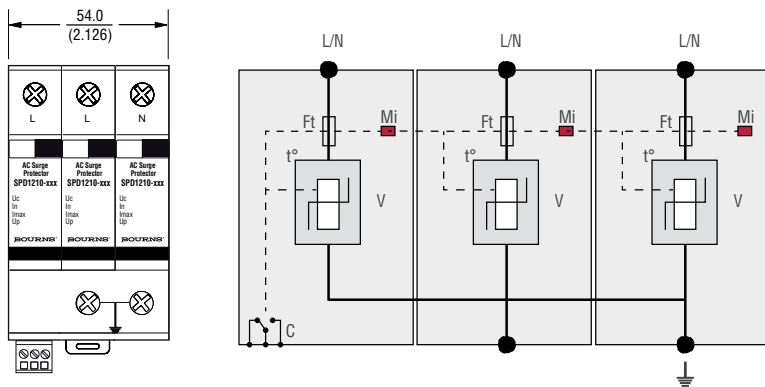
1210-1S-120, 1210-1S-230, 1210-1S-400



1210-2S-120, 1210-2S-230, 1210-2S-420

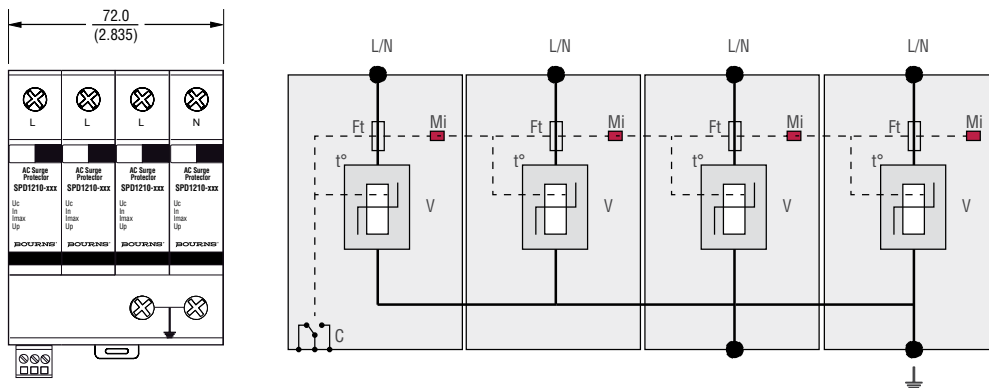


1210-3S-120, 1210-3S-230, 1210-3S-400



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

1210-4S-120, 1210-4S-230, 1210-4S-400



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

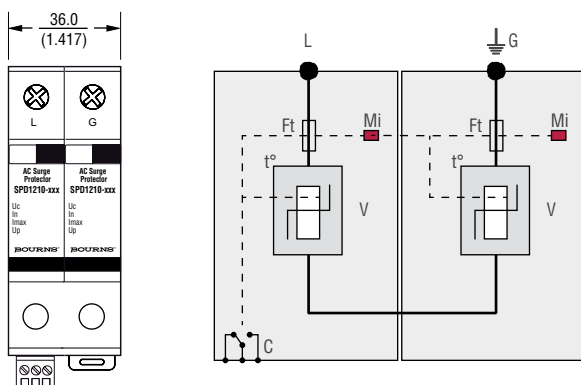
The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

1210 Series Heavy Duty AC Surge Protective Device

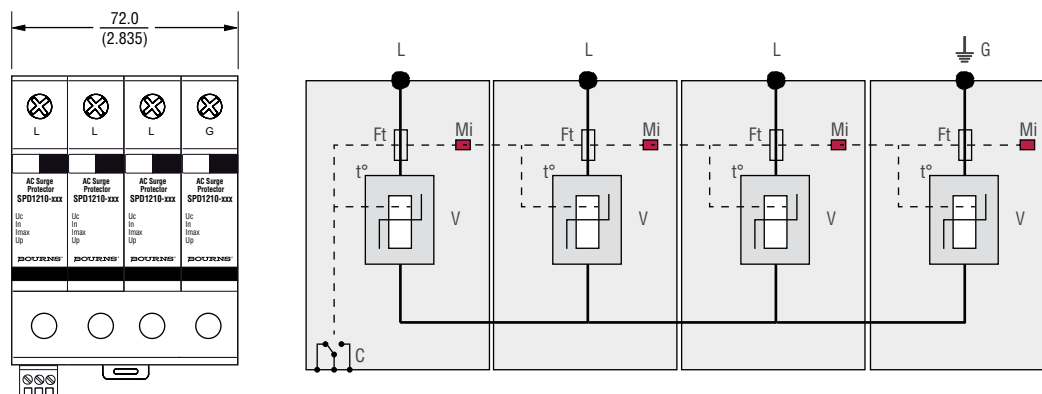
BOURNS®

Product Dimensions and Schematics (Continued)

1210-1S-600



1210-3S-600



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.


1210 Series Heavy Duty AC Surge Protective Device

BOURNS®

Standards Compliance

IEC61643-1 - International	Class I, Class II
EN 61643-11 - Europe	Class I, Class II
NF EN 61643-11 - France	Class I, Class II
UL1449 5th Edition - USA	Type 4, Type 2 Location
UL1449 5th Edition - Canada	Type 4, Type 2 Location
CSA C22.2 No. 8-M1986	Class 9091 32, Class 9091 92
RoHS	RoHS Directive 2015/863, March 31, 2015, and Annex

Agency Recognition

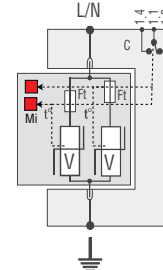
Agency	Category	Agency File No.
	UL1449 - 5th Ed.	E313168

How To Order

Series	1210 - x S - xxx
Configuration	1 = One Protected Pole 2 = Two Protected Poles 3 = Three Protected Poles 4 = Four Protected Poles
Remote Signalling Code	S = Remote Signalling
Operating Voltage	120 = 120/240 V, 120/208 V 230 = 220/380 V, 240/415 V 400 = 220/380 V, 277/480 V, 347/600 V *600 = 480 V, 600 V

*Refer to the mechanical differences shown above when ordering Models 1210-1S-600 and 1210-3S-600.

Electrical Diagram



V : High energy varistor
 Ft : Thermal fuse
 C : Remote signalling contact
 t* : Thermal disconnection system
 Mi : Disconnection indicator

BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

www.bourns.com

REV. 06/25

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, "Bourns").

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information and verify that such information is current and complete before placing orders for Bourns® products.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain types of applications are based on Bourns' knowledge of typical requirements in generic applications. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to (i) the combination of the Bourns® product with other components in the user's application, or (ii) the environment of the user application itself. The characteristics and parameters of a Bourns® product also can and do vary in different applications and actual performance may vary over time. Users should always verify the actual performance of the Bourns® product in their specific devices and applications, and make their own independent judgments regarding the amount of additional test margin to design into their device or application to compensate for differences between laboratory and real world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., IATF 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet the requirements of such industry standard or particular qualification. Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their devices or applications.

Bourns® products are not recommended, authorized or intended for use in nuclear, lifesaving, life-critical or life-sustaining applications, nor in any other applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any Bourns® products in such unauthorized applications might not be safe and thus is at the user's sole risk. Life-critical applications include devices identified by the U.S. Food and Drug Administration as Class III devices and generally equivalent classifications outside of the United States.

Bourns expressly identifies those Bourns® standard products that are suitable for use in automotive applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard products in an automotive application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk. If Bourns expressly identifies a sub-category of automotive application in the data sheet for its standard products (such as infotainment or lighting), such identification means that Bourns has reviewed its standard product and has determined that if such Bourns® standard product is considered for potential use in automotive applications, it should only be used in such sub-category of automotive applications. Any reference to Bourns® standard product in the data sheet as compliant with the AEC-Q standard or "automotive grade" does not by itself mean that Bourns has approved such product for use in an automotive application.

Bourns® standard products are not tested to comply with United States Federal Aviation Administration standards generally or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aircraft or space applications. Bourns expressly identifies Bourns® standard products that are suitable for use in aircraft or space applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard product in an aircraft or space application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the above provisions applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Users shall not sell, transfer, export or re-export any Bourns® products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology in any facility which engages in activities relating to such devices. The foregoing restrictions apply to all uses and applications that violate national or international prohibitions, including embargos or international regulations. Further, Bourns® products and Bourns technology and technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes. Bourns® products may not, without prior authorization from Bourns and/or the U.S. Government, be resold, transferred, or re-exported to any party not eligible to receive U.S. commodities, software, and technical data.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability for special, punitive, consequential, incidental or indirect damages or lost revenues or lost profits, and (ii) any and all implied warranties, including implied warranties of fitness for particular purpose, non-infringement and merchantability.

For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:

Web Page: <http://www.bourns.com/legal/disclaimers-terms-and-policies>

PDF: <http://www.bourns.com/docs/Legal/disclaimer.pdf>