BOURNS®

Bourns® 1202 Series Thermally Protected Surge Protective Device

NEW PRODUCT BRIEF

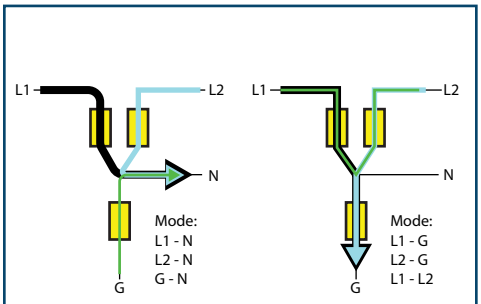
INTRODUCTION

To protect a wide variety of AC infrastructure applications against lightning surges, Bourns offers its 1202 Series Surge Protective Device (SPD). The Bourns® 1202-P Series is enhanced with thermally protected MOV technology, providing a higher Nominal Discharge Current (I_n) of 20 kA and a Maximum Discharge Current (I_{max}) of 50 kA to meet broader and stricter protection requirements.

The built-in thermal protection feature is designed to safely open in the event of overheating caused by abnormal overvoltage or Temporary Overvoltage (TOV) conditions, thereby interrupting abnormal current within rated limits.

The device series has a nominal current rating of 20 kA and a short circuit current rating of 100 kA. The device's LED indicators provide a visual indication when the surge protector encounters any situation that requires its internal safety fusing to activate. In addition, the series is IP66/NEMA 4X rated and can be used indoors or outdoors.

The Bourns® 1202 Series is available in two versions: a 120 V_{rms} version as well as a 120/240 split phase version. The Model 1202-240S is capable of covering six (6) modes of protection on a 120/240 split installation, and is designed to offer comprehensive protection of symmetric modes (see diagram below).



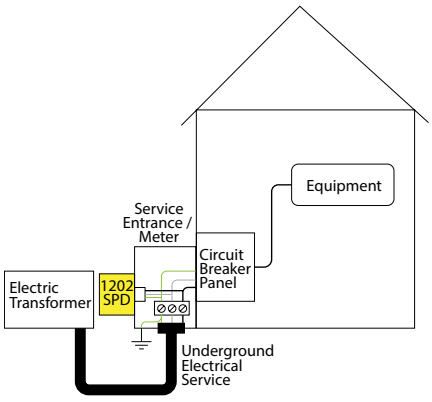
Compliance: UL1449 5th Edition Type 1

APPLICATIONS OVERVIEW

The Bourns® 1202 Series are UL Type 1 SPDs. As a Type 1 SPD that is permanently connected and hardwired, the Bourns® 1202 Series can be installed between the secondary side of the utility service transformer and the line side of the service equipment overcurrent protective device, as well as the load side of the main service equipment. The extensive features designed into Bourns® latest thermally protected SPD make it an optimal solution to protect against lightning threats (up to rated limits) and for AC power-induced problems in a broad range of applications.

APPLICATIONS

- Service entrance, branch and OEM panels
- Electrical infrastructures
- Equipment and system cabinets
- Energy generation and distribution
  - Power supplies, smart meters
  - PV inverters, EV chargers
- Exposed electronics equipment
  - Cameras, traffic control equipment, weather stations
- High-efficiency lighting and displays
  - LED lighting in commercial signage, municipal lighting
- Communications
  - Cabinets, 5G infrastructure



FEATURES

- Two versions available:
  - 120 V_{rms} single phase systems
  - 120/240 V_{rms} split phase systems
- Multi-mode protection (L-L, L-N, N-G)
  - 6 Modes of protection
- I_n: 20 kA / ISSC: 100 kA rated
- LED indicator status lights
- IP66/NEMA 4X environment rating
- UL 1449, 5th edition
- Temperature range: –40 °C to +85 °C

BENEFITS

Thermal Protection Mechanism:
The built-in thermal element in a 1202-P Series SPD monitors and activates during prolonged high-energy surges causing excessive heating.

Temporary Disconnection:
When the thermal element activates, it disconnects itself from the circuit. This prevents sustained overheating and potential thermal runaway, enhancing the safety and reliability of the surge protection

HOW TO ORDER

1202 - xxxx - Y

Series
Nominal (Operating) Voltage
- 120 = 120 VAC
- 240 = 120/240 VAC

Overvoltage Protection Type
- S = Hybrid (GDT + MOV)
- P = Thermally Protected

Nominal Current*
- Blank = 10 kA
- 20 = 20 kA

*Hybrid is only available at 10 kA I_{nom} surge rating.

MORE INFORMATION

- AC power SPDs
- DC power SPDs
- Signal and data line SPDs
- Coaxial SPDs and enclosures
- Bourns SPD brochure
- Bourns Information & Communication Technology (ICT) Brochure

To maintain the NEMA 4X rating of the host enclosure, a gasket must be placed on the exterior side of the mounting conduit fitting.
RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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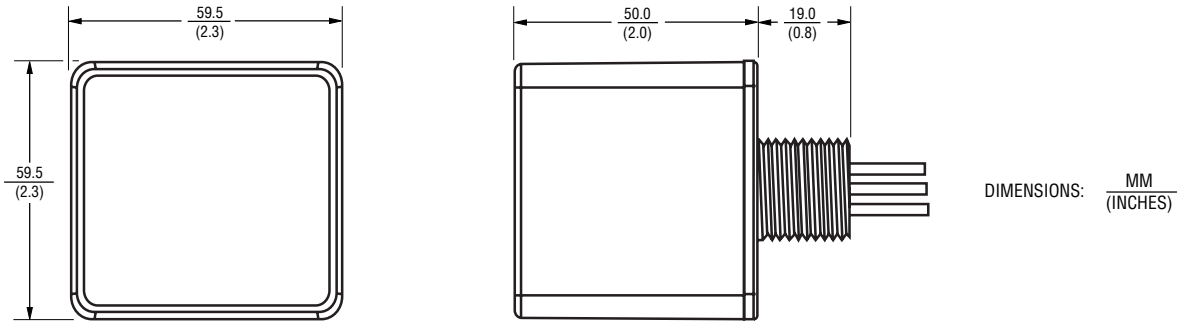
NEW PRODUCT BRIEF

ELECTRICAL CHARACTERISTICS

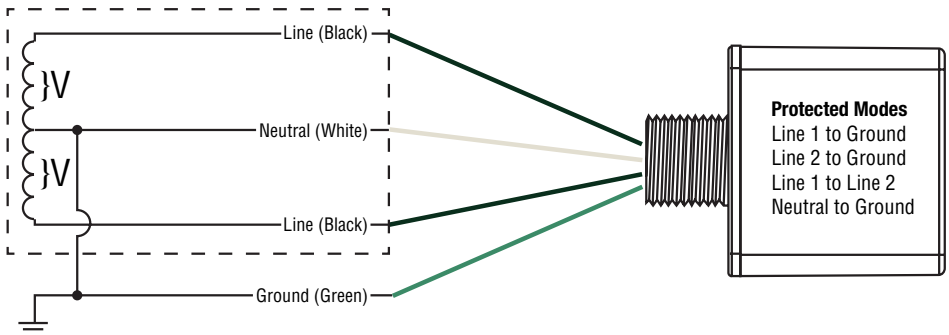
Characteristic		Model No.	
		1202-120x	1202-240x
Electrical Distribution System (Phase)		120 VAC Single	120 / 240 VAC Single/Split
Nominal (Operating) Voltage		120 VAC	120 / 240 VAC
Maximum Operating Voltage	MCOV	150 VAC	
Temporary Overvoltage Withstand	U_T	150 VAC	
Nominal Discharge Current in 15 Applications of 8/20 µs Impulse Waveform	I_n	10 kA / 20 kA	
Maximum Discharge Current in 1 Application of 8.20 μs Impulse Waveform	I_{max}	25 kA / 50 kA	
Overvoltage Protection Rating (3 kA)	V_{pr}	1200 VAC / 700 VAC	
Short Circuit Current Rating	I_{sccr}	25 kA / 100 kA	

For full characteristics, see data sheet

PRODUCT DIMENSIONS



WIRING AND PROTECTION MODES



Model 1202-120x = 1 Hot, 1 Neutral, 1 Ground
Model 1202-240x = 2 Hot, 1 Neutral, 1 Ground