Prosurge, Inc
Prosurge Electronics
www.Prosurge.com

ProSurge

Maximum Safety in Surge Protection

Surge Filter Catalogue

Prosurge, Inc - Florida, USA

Prosurge Electronics - Foshan, China

Prosurge is a globally competitive surge protection company and is one of the fastest growing companies in this industry. It consists of 2 companies:

Prosurge, Inc

Prosurge Electronics Co., Ltd

We start from a humble beginning by a group of experts and now we've grown into a business with more than 120 staffs. For the past12 years, we extended our business in 6 continents and more than 60 countries. Although United States still remains our biggest single market, most of our revenue comes from international market.

Our mission is to to protect millions of businesses, households and organizations from lightning & surge damages. Inspired and encouraged by this mission, we are doing things differently than manyof our competitors.

We innovate. As an engineering driven company, we invest a way- above-average ratio of yearly revenue on R&D. This ensures Prosurge

Team

Bill Goldbach

Member of IEEE / UL 1449 Standard Board

Terry Mao

20 Years Expertise in SPD Industry

Two-port Surge Filter Introduction

Prosurge's surge filter is used to protect single/three phase electrical distribution systems, especially to protect sensitive electronics 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

It's found that electronic equipment is sensitive to both the absolute magnitude of the impulse voltage and its rise rate. The radical changes in dv/dt and di/dt, rather than the peak voltage, is the major source of electronic circuit damages.

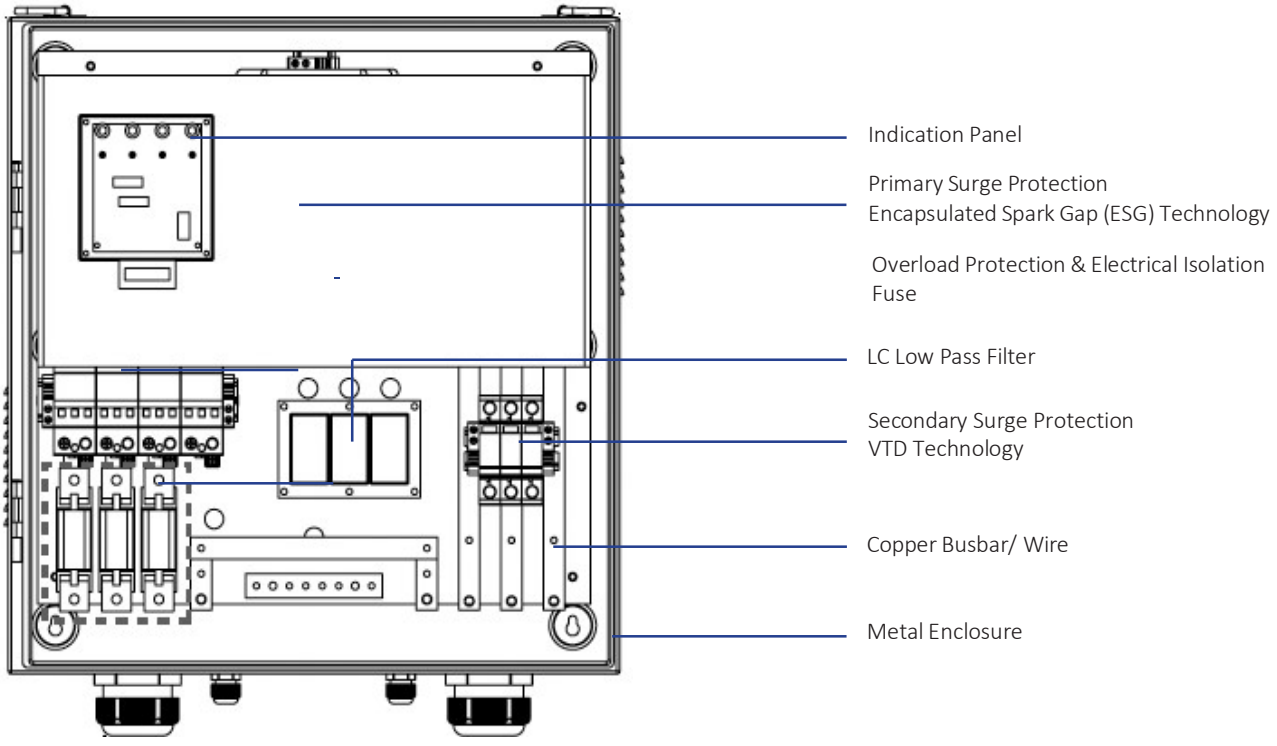
Prosurge's surge filter is designed as a 3-stage protection system which consists of primary protection & secondary protection and with a well-designed LC filter in series. The LC filter is used to slow down the inherently fast rise rate of voltage and current. The primary protection module is used to divert the strong lightning/ surge current, while the secondary protection module & LC filter willlimit the let-through voltage to a very low level.

The surge filter should be installed in series with the supply powering the equipment.

Features

- Multi-stage protection circuit with LC Filter design to protect sensitive electronics
- Provides extensive high frequency & RF filtering
- High Surge capacity: Up to 50kA 10/350 µs or 10kA~ 200kA 8/20 µs per mode available
- Surge capacity of N-PE mode up to 100kA 10/350 µs
- Different load current: 10A ~ 800A available for single phase or 3 phase
- Built-in fuse in series for overload /short circuit protection
- All mode protection
- LED failure indication
- Remote alarm function available
- Surge counter optional

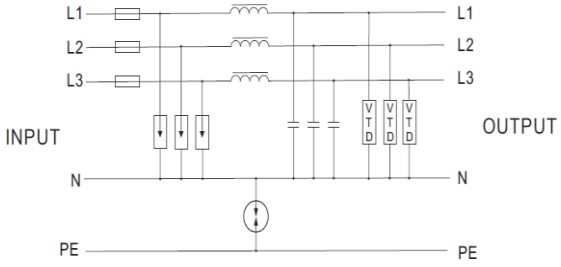
Product Internal Design



Three Phase
125A

Class I+II SPD
BSF200-3/...-125A-3PN-VTD-S

Product Picture for Reference Only

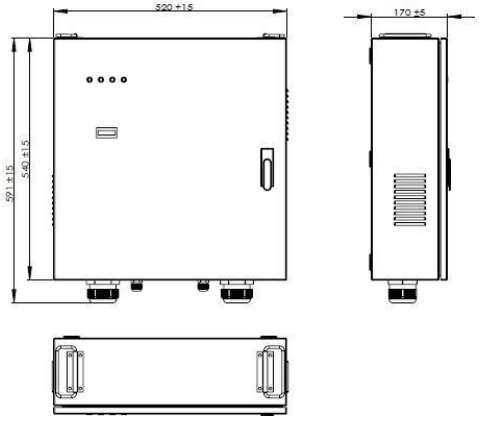


Basic circuit diagram

Features

- Multi-stage protection circuit with LC Filter design to protect sensitive electronics
- Provides extensive high frequency & RF filtering
- Prosurge ESG+VTD technology to further improve voltage clamping performance
- Application for 120~127V, 220~277V (L-N) TT/TN, or any three phase system with a grounded neutral
- Surge capacity: 50 kA 10/350 µs or 150kA 8/20 µs (per mode)
- Surge capacity of N-PE mode up to 100kA 10/350 µs
- Load current rating 125A
- Built-in in series fuse for overload / short circuit protection available
- All mode protection, 3+1 protection circuit for TN-S and TT systems
- LED failure indication & remote alarm function available
- Powder Coating Steel enclosure, wall mounting
- Surge counter optional

Dimension Drawing



Model			BSF200-3/180-125A-3PN-VTD-S	BSF200-3/320-125A-3PN-VTD-S
Compliance			IEC61643-11; UL1449 4th; IEC61000-6; ANSI/IEEE C62.41; AS1768-1991; AS3100	
Category IEC/EN/UL			Class I+II/ Type 1+2 / Type 2	
Ports/Protection Mode			All mode protection	
Protection Technology			ESG(primary)+ VTD(secondary) technology GDT Technology for NPE mode LC filter Thermal disconnector Built-in over-current protection	
Power System		U_n	120/208 to 127/220V, 50-60Hz three phase (TN/TT)	220/380 to 277/480V, 50-50Hz three phase (TN/TT)
Max. Continuous Operating Voltage (AC/DC)		U_c	180V/230V	320V/420V
Rated load Current		I_L	125A	
Nominal Discharge Current		I_n	50kA (8/20us)	
Primary Surge Protection Rating	L-N		I_{imp}: 50kA (10/350us), I_{max}: 150kA (8/20us)	
	N-PE		I_{imp}: 100kA (10/350us), I_{max}: 200kA(8/20us)	
Secondary Surge Protection Rating	L-N	I_{max}	50kA(8/20us)	
Total surge capacity per phase		I_{max}	200kA (8/20us)	
Voltage Protection Level	L-N@6kV/3kA	VPR	<0.4kV	<0.5kV
	L-N@ In(50kA, 8/20)	U_p	<0.8kV	< 1.0kV
	N-PE@1.2/50	U_p	< 1.0kV	< 1.5kV
Residual Current		I_{PE}	<0.1mA	
Voltage Drop			< 2V at 125 A load	
Temporary Overvoltage TOV —Withstand Mode		U_{tov}	230V/120min	440V/120min
Response Time		t_A	≤1ns	
Filter Attenuation		dB	>48dB @ 1MHz	
Built In Over Load/ Over-Current Protection In Series			125A (optional)	
Short Circuit Current Rating		Isscr	>36KA	
Lightning Counter Current			≤ 3kA	
Protect Status Indication			4 LED display, Normal (Blue), Protection fault(Off)	
Remote Alarm			Dry contact alarm relay – 250Vac/32Vdc, 5A	
Connecting Cable			Power: 2-3AWG(100A/125A); Alarm: 14-22AWG	
Environment			Temperature Range: - 40°C ~ +70°C Humidity: ≤95% Altitude: ≤2000m	
Mounting			Wall mounting	
Location Category			Indoor	
Degree of Protection			IP55	
Dimension			520mm (L) x540mm (W) x 170mm (H) approx	
Weight			34kg approx	
Approvals, Certification			CE	

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Prosurge's products are distributed in more than 60 countries worldwide via our distributors.