SF320 *SURGE FILTER 320kA/ph*

6.88”

- **UL®1449 Listed Edition 5.0**
- **Type 1 SPD, 20kA I_n**
- **320kA 8/20µs I_{max} surge rating per phase**
- **Two Stage SPD with backup protection**
- **NEMA 4X**
- **UL® 50E Type 4 Enclosure**
- **All modes protected**
- **Optional Recessed Mounting Trim Plate**
- **Prewired 36” leads for alarm contacts**
- **Audible Alarm (including phase loss)**
- **Versatile Range of Applications**
- **Ten Year Limited Warranty**

Model	Voltage
SF320S12	S120/240V 3w+G
SF320Y12	Y120/208V 4w+G
SF320Y24	Y277/480V 4w+G
SF320D2	240V 3ph Delta
SF320D4	480V 3ph Delta
SF320D12	120/240V 3ph Delta

UL®1449 Listed Edition 5.0
UL® 1283 Edition 7
(Type 1), CE, CSA, IEC 6143-1

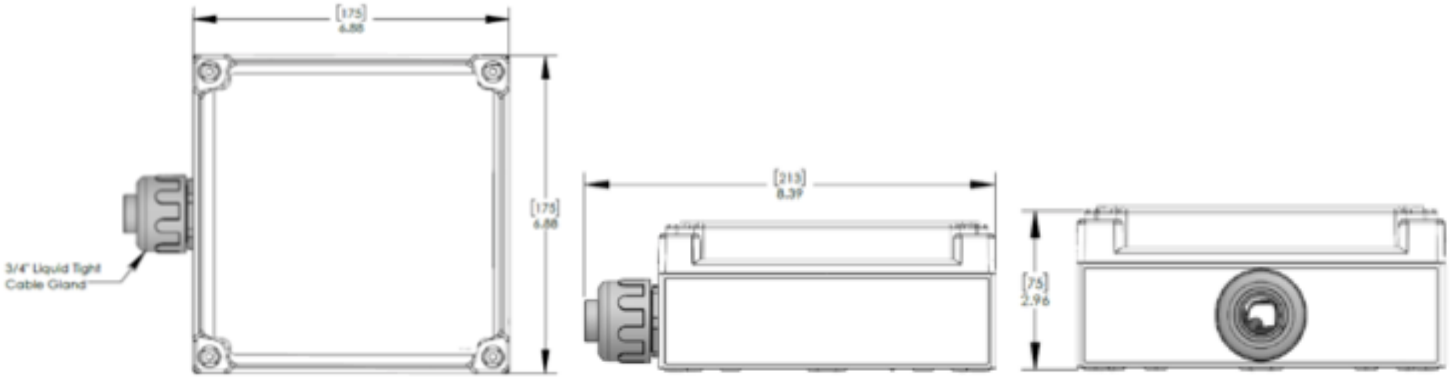
The **OMEGA POWER SF320** Surge Filter Series is an enhanced version of the **SP320** Series. The **SF320** features a two stage suppressor that provides full protection, even if a lightning strike should damage or disable Stage one. The **SF320** Surge Filter is robust, with a 320 kA per phase surge rating. The high peak surge rating increases survivability and overall life. The addition of the filter, designed to remove high frequency transients and noise on the power distribution system, adds another level of protection for sensitive equipment.

The **SF320** is **UL® 1283 Edition 7 and UL® 1449 Edition 5** Listed as an SPD for Type 2 locations. Applications include service entrance, distribution switchgear, branch panels, Motor Control Centers (MCC), lighting panels, HVAC, A/V Equipment, IT equipment, and much more. With a NEMA 4X enclosure rating, this product series is also well suited for outdoor applications. Engineered to provide durability and long life, even under the most adverse conditions.

SF320

SF320 SPECIFICATIONS COMMON TO ALL VOLTAGES

Max Discharge Current, I_{max}	320kA 8/20µs per phase (I_{max})
Nominal Discharge Current, I_n	20kA 8/20µs / mode
Protection Modes	ALL MODES
Short Circuit Current Rating	200kAIC
Status / Alarm	2 Green LED status indication per phase / AUDIBLE ALARM
Dimensions	6.88"h x 2.97"d x 6.88"w
Enclosure / Rating	Polycarbonate / NEMA 4X / UL 50E,Type 4
Connection	(36" of # 10 AWG) flying leads, 3/4" Liquid Tight Cable Gland
Mounting	3/4" straight nipple.
Approvals	UL® 1449 LISTED EDITION 5.0 (TYPE 1), CE, CSA, IEC 6143-1
Complies With	ANSI/IEEE: C62.41.2 -2002, C62.41.1-2002, C62.45-2002 CAT A, CAT B, CAT C
Temperature	- 40 to 185 F
Unit Weight	2.4 lb
Recessed Wall	Optional Flush Mounting Plate for Drywall
Warranty	10 Years Limited Free Replacement



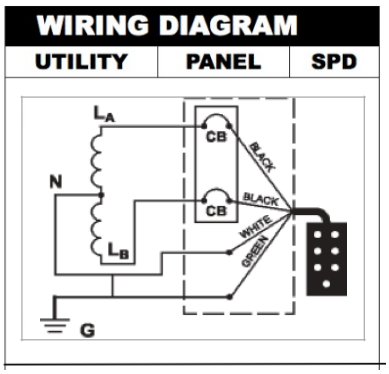
SF320

SF320 SPECIFICATIONS MULTI PHASE

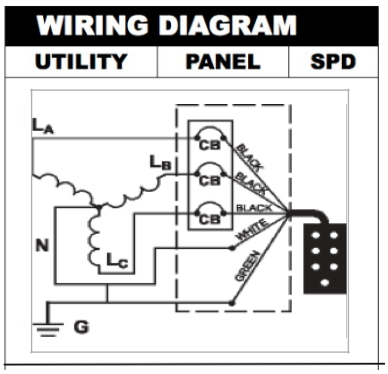
Model	SF320S12	SF320Y12	SF320Y24
Nominal System Voltage, Un	120/240 V	120/208 V	277/480 V
Distribution System	Split phase 3W+G	3 Ph Y 4W+G	3 Ph Y 4W+G
MCOV	180/360 VAC	150/300 VAC	350/700 VAC
VPR Voltage Protection Rating L-N	L-L 1200 V	L-L 1000 V	L-N 1200 V
VPR Voltage Protection Rating L-G	L-N 700 V	L-N 600 V	L-G 1200 V
VPR Voltage Protection Rating N-G	L-G 800 V	L-G 700 V	N-G 1000 V

SF320 SPECIFICATIONS 3 PHASE DELTA

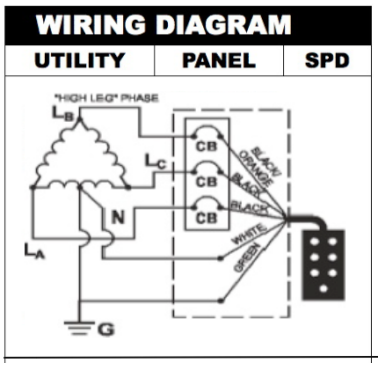
Model	SF320D2	SF320D12	SF320D4
Nominal System Voltage, Un	240 V	120/240V hileg delta	480 V
Distribution System	3 Ph Delta, 3W +G	3 phase 3W+G	3 Ph Delta 3W+G
MCOV	275 VAC	180/275 VAC	550 VAC
VPR Voltage Protection Rating L-L	L-L 1500 V	L-N 1200 V / 1500 V	L-L 3000 V
VPR Voltage Protection Rating L-N	L-G 900 V	L-G 800 V / 900V	L-G 1500 V
VPR Voltage Protection Rating L-G		N-G 700 V	



S120/240V 3w+G



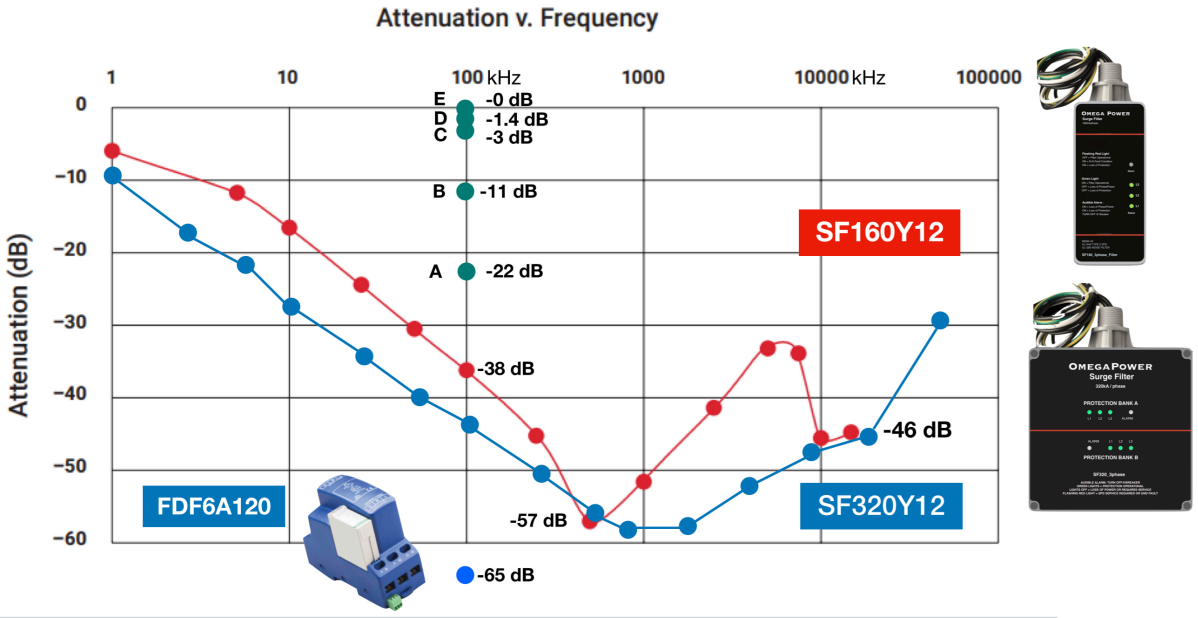
Y120/208V 4w+G.



D120/240V hileg 3w+G

SF320

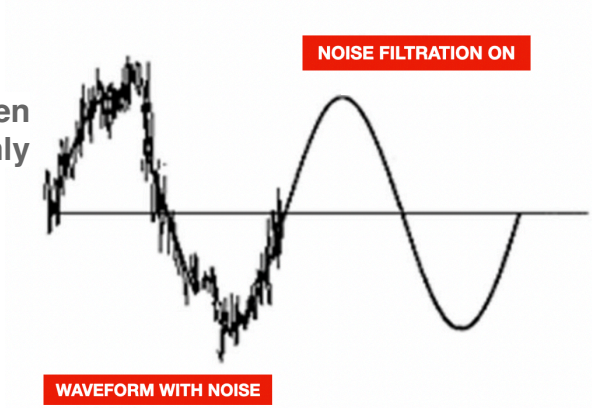
SF160 AND SF320 EMI / RFI ATTENUATION TESTING



NOISE

There are 3 basic considerations when analyzing EMI/RFI problems (commonly referred to as noise):

1. The noise **source**
2. The transmission **medium**
3. Noise Receiver or **victim**



High frequency switching from inverters and VFDs are two of the more common sources of noise in a typical facility. Conducted noise is transmitted from it's source (ie… inverter) to other nearby equipment through **shared AC power wiring**. Some equipment, I.e… energy efficient air conditioners, etc. can be **both** the noise **source**… and the noise victim. …noise effects controls… leading to 'erroneous operation'….

The **2020 NEC (National Electric Code)** has upgraded the Code requirements for surge suppression on 'critical' and emergency loads. By combining our robust **UL®Listed** surge suppression with a high performance noise filter, we have the best of both technologies all in one easy to install package. The **SF320** Surge Filter is one of the most versatile and effective tools in our Power Quality Tool Kit.