

FF1W Series - NEMA1 WVR Single Phase

| Models | FF1-20W-120 | FF1-20W-240U |
|--|--|--|
| Mfg Part # | 002-00072 | 002-00073 |
| Voltage/Hz | 120V ac nominal 50-60 Hz | 2-120V ac legs with neutral line 50-60 Hz |
| Max. Amperage | 20 amps | 20 amps |
| Box Connectors | Supplied by customer, to fit standard knockouts * | |
| Ground Connect | Ground screw on each chassis, attach using spade or ring terminals | |
| Wire Connector & recommended attachment | Screw terminal block use #8 spade or fork crimp terminal | Screw terminal block use #8 spade or fork crimp terminal |
| Over-current Protection | Must be installed on a branch circuit with 20A over-current protection | |
| Enclosure | NEMA1 screw cover box w/ knockouts 10”H x 8”W x 4”D | NEMA1 screw cover box w/ knockouts 12”H x 12”W x 4”D |
| Weight | 8.25 lbs | 15.5 lbs |
| Boxed Dim./Wt. | 11.5” x 9” x 5.5” / 9 lbs | Bulk Pack |

* **WARNING:** Must be installed by a licensed electrician following NEC and local codes.



3162119



X10 Carrier Current Compatible

FF1-20W-120 (top view, not to scale)

FF1-20W-240U (top view, not to scale)

| Specifications | | |
|---------------------------------------|--|---|
| Voltage Ratings | US 120 Volt, single phase (one hot leg & a neutral leg tied to earth ground at service entrance). Will operate over a voltage range of 85 - 175 volts with Spectrum WVR technology (MCOV=175Vac). Full load regulation 1%. | US 240 volt single phase or 208 volt 3 phase Y systems with two hot legs and a common neutral connected to earth ground at service entrance. Will operate over a wide voltage range of 85 - 265 volts with Spectrum WVR technology (MCOV=265Vac). |
| | Check line wiring for hot/neutral reversal prior to connecting this filter. Hot/neutral building wiring reversal can compromise any appliance’s safety and performance. | |
| Operating Temperature Range | 0-40 deg. C | |
| Technology | Spectrum WVR® Wide Voltage Range filter technology | |
| Mode | Mode 1 applications, L-N (ground wire protection) | |
| Safety Certifications | CSA 22.2 No. 8-M1986, UL 1283 5th edition. | |
| Limiters | Series mode inductor current limiter; auto-tracking dual polarity dynamic sensing; dual dynamic filtering. Parameters optimized for switch-mode power supply protection. | |
| Dynamic filtering Onset | 172 volts nominal, 2 volts above peak line voltage (auto-tracking- WVR). | |
| Max Surge Voltage Let-through* | 130 Volts above peak line voltage @ 6,000 Volts, 3,000 Amps for ANSI C62.41 Category B3/C1 Combination Wave. | |
| Max. Applied Pulse Voltage | 6,000 volts (1.2 x 50 μs – ANSI C62.41 Combination Wave) | |
| Max. Applied Pulse Current | >100,000 amperes applied (unlimited due to internal current limiting) (8 x 20 μs). | |
| Joule Rating | Not applicable to this technology. No MOV’s to wear out. | |
| Endurance Rating | 1,000 worst case pulses: ANSI C62.41, Category B3/C1 pulses (6,000 Volts, 3,000 Amperes); >10,000 pulses at 4,000 Volts; >100,000 pulses at 2,000 Volts. | |
| Filter Slew Rate | 5,000 volts/μs disturbance reduced to 28 v/μs within AC power wave envelope; less than 10 v/us outside the power wave envelope. | |
| EMI-RFI Filter Response | Bi-directional, wave tracking: With 50 ohm Rgen., load: 3 dB @5 kHz; 26 dB @100 kHz; 38 dB @300 kHz. | |

* Note: Surge voltage let-through is the peak voltage that exceeds the powerline peak voltage.

100% Surge Protection, 0% Failure • Are you Zero Surge protected?

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