Data Sheet

Commercial/Industrial Products

FF1W Series - NEMA1 WVR Single Phase



Models	FF1-20W-240UB	
Mfg Part #	002-03073	
Voltage/Hz	2-120V ac legs with neutral lines 50-60 Hz	
Max. Amperage	2 @ 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	30 Amp Euro-connector	
Over-current Protection	Must be installed on a branch circuit with 20A over-current protection	
Enclosure	NEMA1 screw cover box w/ knockouts 12"H x 12"W x 4"D	
Weight	15.5 lbs.	
Boxed Dim./Wt.	Bulk Pack	

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









 $\boldsymbol{X10} \text{ Carrier Current Compatible}$

(open view, not to scale)

Specifications			
Voltage Ratings	US 120 Volt, single phase (one hot leg & a	US 240 volt single phase or 208 volt 3 phase	
	neutral leg tied to earth ground at service	Y systems with two hot legs and a common	
	entrance). Will operate over a voltage range	neutral connected to earth ground at service	
	of 85 - 175 volts with Spectrum WVR	entrance. Will operate over a wide voltage	
	technology (MCOV=175Vac). Full load	range of 85 - 265 volts with Spectrum WVR	
	regulation 1%.	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, Recognized Component		
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-	130 Volts above peak line voltage @ 6,000 Volts, 3,000 Amps for ANSI C62.41 Category		
through*	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 μ s).		
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/ μ s disturbance reduced to 28 v/ μ s 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.

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