# FERRUPS® FE Series 60 Hz

Unrivaled reliability in configurable power protection for computers and telecommunications equipment

#### **Features**

- ▶ Active Voltage Regulation converts power from almost any AC source into computer grade power
- ▶ Eliminates harmful harmonic currents from entering a building's wiring, where they can disrupt computer operations
- ▶ Enhanced diagnostics initiate automatic startup and scheduled tests on the logic board, battery and other critical systems
- ▶ Provides regulated output voltage without drawing power from batteries, keeping the batteries fully charged from unexpected blackouts
- ▶ Complete offering of power management software included to ensure data integrity
- ▶ Warranty
  - -2-Year Limited Warranty
  - -\$25,000 Load Protection Guarantee (U.S. and Canada)



Powerware FERRUPS® uninterruptible power systems (UPSs) furnish unmatched reliability in configurable power protection for computers and telecommunications equipment. Patented ferroresonant technology delivers "bulletproof" power protection, overcoming spikes, sags, surges, noise, and lightning. Powerware-exclusive SineSense™ provides clean, reliable power while conserving batteries during blackouts.

Extensive configurability and customization options make FERRUPS the ideal power protection solution with a wide range of voltages, frequencies, runtimes, power cords, and receptacles. FERRUPS prevents the backfeed of harmonic currents into building wiring, which can disrupt computer operations.

### **Product Snapshot**

**Rating:** 500 VA - 18 kVA Input Voltage: 120/208/240,

208/240

Output Voltage: 120/208/240

Frequency: 60 Hz Configuration: Tower

Redundant power paths assure high faulttolerance and optimum uptime. Galvanic isolation separates input from output, filtering line noise and surges. FERRUPS also features precision voltage regulation with no battery discharge down to 38% below nominal (depending upon load); and over 80 userprogrammable diagnostic and communications functions.

FERRUPS has been awarded Midrange Systems' "Buyers' Choice" award six times. FERRUPS models include free Powerware Software Suite power management software with connectivity cable, and are BestLink™ SNMP/WEB-ready for remote management. FERRUPS covers up to US\$25,000 for damage to connected equipment resulting from a spike or surge (U.S. and Canada only).

## Powerware Recommends

Software

Connectivity

#### **System Solutions**

#### Service

- > CheckUPS
- > Software Suite
- > EnviroCom I & II
- > Bestlink SNMP/
- > Web Adapter
- > Signal Splitter Box
- > Handheld Remote & Keypad
- > IBM AS/400 Kit
- > External Battery Packs,
- > Voltage Matching **Transformers**
- > Maintenance Bypass Switches > Power Distribution Units

**Enhance** your power system maintenance coverage

with Service Plans



### FE Series, 60 Hz Specifications

Models		500VA	700VA	850VA	1.15kVA	1.4kVA	1.8kVA	2.1kVA	3.1kVA	4.3kVA	5.3kVA	7kVA	10kVA	12.5kVA	18kVA
Model Number		FE500VA	FE700VA	FE850VA	FE1.15kVA	FE1.4kVA	FE1.8kVA	FE2.1kVA	FE3.1kVA	FE4.3kVA	FE5.3kVA	FE7kVA	FE10kVA	FE12.5kVA	FE18kVA
Capacity (kVA/kW)		.5/.35	.7/.5	.85/.6	1.15/.8	1.4/1	1.8/1.25	2.1/1.5	3.1/2.2	4.3/3	5.3/3.7	7/5	10/7.5	12.5/10	18/15
Dimensions (inches)		12 x 10 x 21.25			15.1 x 15.2 x 20.2		21.2 x 15.25 x 22.9		29.5 x 15.5 x 25			36.5 x 19 x 32**			
H x W x D (mm)		305 x 255 x 540			385 x 390 x 515		540 x 390 x 585			750 x 395 x 635			930 x 485 x 815**		
Weight	(lbs)	62	79	85	132	154	183	196	256	359	505	604	875	1089	1362
	(kg)	28	36	39	60	70	83	89	116	163	229	274	397	494	618
Input Connection						6 ft.	cord	6 ft. cord	120V/40A	120V/40A	120V/40A				
l		6 ft. cord w/NEMA 5-15P*					w/NI	MA	w/NEMA	208V/25A	208V/30A	208V/40A	208V/60A	208V/75A	208V=115A
							5-20	)P*	5-30P*	240V/20A	240V/25A	240V/35A	240V/50A	240V/65A	240V=100A
Output Connection (quantity)		4 6				6			Hardwired output is standard						
(type)		NEMA 5-15R NEMA 5-15R				NEMA 5-15R			Contact Factory for receptacle options						
Typical Runtime:	(Full Load)	9	11	9	8	11	11	9	14	8	20	12	11	18	10
(minutes)	(Half Load)	23	28	23	21	28	30	25	35	20	50	33	26	48	26
Operation															
Nominal Input Voltage								120/208	/240						
Input Voltage Range								+15%, -							
Input Power Factor								0.98							
Nominal Output Voltage		120/208/240													
Output Voltage Regulation		± 3% for input voltages of +15% to -20%													
Output Voltage Waveform		Sine wave													
Output Voltage THD		6% or less at rated kW load													
Overload Capacity		150% surge and 125% for10 min. on line, 150% surge and 110% for 10 minutes on inverter													
Transfer Time		0 ms													
Lightning, Surge & Noise Protection		2000:1 spike attenuation using ANSI/IEEE C62.41 and C62.45 Category A and Category B tests.  Common Mode - >120 dB. Normal Mode - >60dB													
Efficiency		85	86	85	88	88	90	90	91	90	90	90	90	91	92
Safety Certification		UL, CSA (cUL)													
EMI Compliance		FCC Class A													
Testing Standards		ANSI/EEE C62.41 (1980); ANSI/EEE C62.45 (1987); IEC 801-2, 801-4, 801-5													
Communication		RS-232 serial port (DB-25), plus contact closures													
Environmental															
Operating Temperature		0 to 40° C													
Storage Temperature		-20° C to +60° C													
Relative Humidity		5 to 95% without condensation													
Audible Noise at 1m		41	41	47	49	49	51	51	51	50	51	54	55	56	57
Altitude							3, 050	n (10,000	ft.) max	imum					
All specifications typ	pical and are sul	bject to cl	hange wi	thout no	tice.										

All specifications typical and are subject to change without notice.

Powerware offers a complete line of Uninterruptible Power Systems from 300VA to more than 4000kVA.



<sup>\*120</sup> V Standard Configuration

<sup>\*\*</sup>Batteries for 10kVA-18kVA are in an external cabinet.