

# FERRUPS® FE Series 60 Hz

Unrivalled 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)



## Product Snapshot

**Rating:** 500 VA - 18 kVA  
**Input Voltage:** 120/208/240, 208/240  
**Output Voltage:** 120/208/240  
**Frequency:** 60 Hz  
**Configuration:** Tower





**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.

Redundant power paths assure high fault-tolerance 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 user-programmable 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
<ul style="list-style-type: none"> <li>&gt; CheckUPS </li> <li>&gt; Software Suite</li> <li>&gt; EnviroCom I &amp; II</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Bestlink SNMP/ Web Adapter </li> <li>&gt; Signal Splitter Box</li> <li>&gt; Handheld Remote &amp; Keypad</li> <li>&gt; IBM AS/400 Kit</li> </ul>	<ul style="list-style-type: none"> <li>&gt; External Battery Packs, </li> <li>&gt; Voltage Matching Transformers</li> <li>&gt; Maintenance Bypass Switches</li> <li>&gt; Power Distribution Units</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Enhance your power system maintenance coverage with Service Plans </li> </ul>

## 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 w/NEMA 5-15P*					6 ft. cord w/NEMA 5-20P*	6 ft. cord w/NEMA 5-30P*	120V/40A 208V/25A 240V/20A	120V/40A 208V/30A 240V/25A	120V/40A 208V/40A 240V/35A	208V/60A 240V/50A	208V/75A 240V/65A	208V=115A 240V=100A	
Output Connection (quantity) (type)	4 NEMA 5-15R			6 NEMA 5-15R		6 NEMA 5-15R			Hardwired output is standard Contact Factory for receptacle options					
Typical Runtime: (Full Load) (minutes)	9	11	9	8	11	11	9	14	8	20	12	11	18	10
(Half Load)	23	28	23	21	28	30	25	35	20	50	33	26	48	26
<b>Operation</b>														
Nominal Input Voltage	120/208/240													
Input Voltage Range	+15%, -20%													
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% for 10 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													
<b>Environmental</b>														
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, 050m (10,000 ft.) maximum													

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.

\*120 V Standard Configuration

\*\*Batteries for 10kVA-18kVA are in an external cabinet.