

EATON

Powerware

Powerware® FERRUPS® FE Series 50 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 initiates 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 LanSafe™ management software included to ensure data integrity
- Warranty
 - 2-Year Limited Warranty
 - \$250,000 Load Protection Guarantee (U.S. and Canada)

Product Snapshot

Rating:	500 VA - 18 kVA
Input Voltage:	220/230/240
Output Voltage:	220/230/240
Frequency:	50 Hz
Configuration:	Tower

Powerware FERRUPS® uninterruptible power systems 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. Eaton's-exclusive SineSense provides clean, reliable power while conserving batteries during blackouts.

Extensive configurability 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 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\$250,000 for damage to connected equipment resulting from a spike or surge (U.S. and Canada only).

Technical Specifications

Models	500 VA	700 VA	850 VA	1.15 kVA	1.4 kVA	1.8 kVA	2.1 kVA	3.1 kVA	4.3 kVA	5.3 kVA	7 kVA	10 kVA	12.5 kVA	18 kVA	
Model Number	QFE500 VA	QFE700 VA	QFE850 VA	QFE1.15 kVA	QFE1.4 kVA	QFE1.8 kVA	QFE2.1 kVA	QFE3.1 kVA	QFE4.3 kVA	QFE5.3 kVA	QFE7 kVA	QFE10 kVA	QFE12.5 kVA	QFE18 kVA	
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	80	86	132	154	183	196	256	360	505	605	875	1341	1300	
(kg)	28	36	39	60	70	83	89	116	163	229	274	397	609	589	
Input Connection	IEC-320 (10A) male connector							IEC-320 (16A) male connector		220/19A	220/21A	220/27A	220/43A	220/55A	220/81A
										230/18A	230/20A	230/26A	230/41A	230/53A	230/78A
										240/17A	240/19A	240/24A	240/39A	240/51A	240/75A
Output (quantity)	4							Hardwired output is standard							
Connection (type)	IEC-320 (10A) male connector							Contact Factory for receptacle options							
Typical (Full Load)	9	14	11	18	14	11	9	14	10	20	12	11	18	10	
Runtime: (Half Load) (minutes)	25	35	28	48	37	30	25	35	24	50	33	26	48	26	

Operation

Nominal Input Voltage	220/230/240													
Input Voltage Range	+15%, -20%													
Operating Frequency	50 Hz Nominal (adjustable limits +_ 0.01 Hz to +_ 3Hz)													
Nominal Output Voltage	220/230/240													
Output Voltage Regulation	± 3% for input voltages of +15% to -20%													
Output Voltage Waveform	Sine wave													
Output Voltage THD	5% 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 1778, CSA (cUL), GS (TUV), Complies with European Low Voltage Directive 73/23/EEC													
EMI Compliance	FCC Class A, Complies with European Electromagnetic Compatibility Directive 89/336/EEC													
Testing Standards	ANSI/EEE C62.41 (1980); ANSI/EEE C62.45 (1987); IEC 801-2, 801-4, 801-5 EN 50081-1, EN 50082-1, EN 50091-1, EN 50091-2, EN60950													
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	0 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.
Eaton offers a complete line of uninterruptible power systems from 250 VA to more than 4000 kVA.

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