

# Eaton FERRUPS FE Series 50 Hz



Eaton® 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. 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 Eaton 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).

## Product Snapshot

<b>Rating:</b>	850 VA - 5.3 kVA
<b>Input Voltage:</b>	220/230/240
<b>Output Voltage:</b>	220/230/240
<b>Frequency:</b>	50 Hz
<b>Configuration:</b>	Tower



Eaton NetWatch Client 5.0 has tested compatible with Cisco Unified Communications Manager 4.3. Go to [www.eaton.com/PQ/cisco](http://www.eaton.com/PQ/cisco) for disclaimer.

## 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
- Enables automatic shutdown of UPS-protected devices with NetWatch 5.0 software
- Warranty
  - 2-Year Limited Warranty
  - \$250,000 Load Protection Guarantee (U.S. and Canada)



Powering Business Worldwide

# Technical Specifications

Models	850 VA	1.4 kVA	3.1 kVA	5.3 kVA
Model Number	QFE850 VA	QFE1.4 kVA	QFE3.1 kVA	QFE5.3 kVA
Capacity (kVA/kW)	.85/.6	1.4/1	3.1/2.2	5.3/3.7
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
H x W x D (mm)	305 x 255 x 540	385 x 390 x 515	540 x 390 x 585	36.5 x 19 x 32
Weight (lbs)	86	154	256	505
(kg)	39	70	116	229
Input Connection	IEC-320 (10A) male connector		IEC-320 (16A) male connector	220/21A 230/20A 240/19A
Output (quantity)	4			Hardwired output is standard Contact Factory for receptacle options
Connection (type)	IEC-320 (10A) male connector			
Typical (Full Load)	11	14	14	20
Runtime: (Half Load) (minutes)	28	37	35	50

## 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	88	91	90
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 500082-1, EN 500091-1, EN 500091-2, EN60950			
Communication	RS-232 serial port (DB-25), plus contact closures			

## Environmental

Operating Temperature	0 to 40° C			
Storage	-20° C to +60° C			
Relative Humidity	0 to 95% without condensation			
Audible Noise at 1m	47	49	51	51
Altitude	3,050m (10,000 ft.) maximum			

All specifications typical and are subject to change without notice.

UNITED STATES  
8609 Six Forks Road  
Raleigh, NC 27615 U.S.A.  
Toll Free: 1.800.356.5794

[www.eaton.com/powerquality](http://www.eaton.com/powerquality)

CANADA  
Ontario: 416.798.0112  
Toll free: 1.800.461.9166

LATIN AMERICA  
Brazil: 55.11.3616.8500  
Caribbean: 1.949.452.9610  
México & Central America:  
52.55.9000.5252  
South Cone: 54.11.4343.6323

EUROPE/MIDDLE EAST/AFRICA  
Denmark: 45.3686.7910  
Finland: 358.94.52.661  
France: 33.1.6012.7400  
Germany: 49.0.7841.604.0  
Italy: 39.02.66.04.05.40  
Norway: 47.23.03.65.50  
Portugal: 55.11.3616.8500  
Sweden: 46.8.598.940.00  
United Kingdom: 44.1753.608.700

ASIA PACIFIC  
Australia: 61.2.9693.9366  
New Zealand: 64.0.3.343.3314  
China: 86.21.6361.5599  
HK/Korea/Taiwan: 852.2745.6682  
India: 91.11.4223.2300  
Singapore/SEA: 65.6825.1668

Eaton, LanSafe, Powerware, PowerChain Management and FERRUPS are trade names, trademarks and/or service marks of Eaton Corporation or its subsidiaries and affiliates. All other trademarks are property of their respective owners.



©2009 Eaton Corporation  
All Rights Reserved  
Printed in USA  
ILP0368  
June 2009

