EATON | Powerware

Powerware® FERRUPS® Rackmount 50 Hz

Unmatched reliability in configurable power protection for computers and telecommunications equipment

Product Snapshot

Rating:	850 VA - 7 kVA
Input Voltage:	220/230/240
Output Voltage:	220/230/240
Frequency:	50 Hz
Configuration:	Rackmount

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™ power management software included to ensure data integrity
- Warranty
  - 10-year Pro-Rated Warranty
  - $25,000 Load Protection Guarantee (U.S. and Canada)

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. Our 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 $25,000 USD for damage to connected equipment resulting from a spike or surge (U.S. and Canada only).

Technical Specifications

Model		850 VA	1.15 kVA	1.4 kVA	1.8 kVA	2.1 kVA	3.1 kVA	4.3 kVA*	7 kVA*
Model No.		QFES850 VA	QFES1.15 kVA	QFES1.4 kVA	QFER1.8 kVA	QFER2.1 kVA	QFER3.1 kVA	QFER4.3 kVA	QFER7 kVA
Capacity (kVA/kW)		.8/.6	1.15/.8	1.4/1	1.8/1.25	2.1/1.5	3.1/2.2	4.3/3	7/5
Input-Hardwired Connection		220=4.4A	220=4.9A	220=5.7A	220=7.9A	220=8.2A	220=13A	220=19A	220=27A
Circuit Breaker Requirement		230=4.2A	230=4.6A	230=5.4A	230=7.5A	230=7.8A	230=12A	230=18A	230=26A
(Contact factory for power cord options)		240=4.0A	240=4.4A	240=5.2A	240=7.2A	240=7.4A	240=12A	240=17A	20=24A
Output Connection		Hardwired output is standard. Contact factory for receptacle options.							
Efficiency % (on line)		85	88	88	90	90	91	90	90
Heat (on line)	BTU/hr.	361	372	465	474	568	742	1138	1896
	kW/hr.	0.106	0.109	0.136	0.139	0.166	0.217	0.333	0.556
Audible Noise (dBA)		48	50	50	50	50	51	50	52
Typical Runtime:	full load	11	19	14	31	24	14	26	12
(minutes)	half load	28	49	36	73	58	35	61	33
Weight	lb	108	141	154	216	227	245	509	600
(includes batteries)	kg	49	64	70	98	103	111	231	272
Dimensions H x W x D	inches		9.75 x 16 x 21.25		9.75 x 16 x 26.25†			19 x 16 x 26.25	
	mm		248 x 406 x 540		248 x 406 x 667			483 x 406 x 667	
Front Panel H x W	inches		10.5 x 19		10.5 x 19			19.25 x 19	
	mm		267 x 483		267 x 483			489 x 483	
Battery Pack H x W x D	inches		Internal		Internal			8.3 x 16.25 x 24.25	
	mm							211 x 413 x 616	

Operation									
Nominal Input Voltage	220/230/240								
Input Voltage Range	+15%, -20%								
Operating Frequency	50 Hz (on-line - ±0.01 Hz to ±3 Hz adjustable, on inverter - ±0.005 Hz)								
Nominal Output Voltage	220/230/240								
Output Voltage Regulation	±3% for input voltages +15%, -20% of nominal. +5%,-8.3% for any line, load or battery condition.								
Output Voltage Waveform	Sine Wave								
Output Voltage	THD 5% or less THD at rated kW load								
Overload Capacity	150% surge and 125% for 10 minutes on-line. 150% surge and 110% for 10 minutes on inverter.								
Transfer Time	0 ms								
Lightning, Surge, and Noise Protection	2000:1 spike attenuation using C62.41 and C62.45 Category A and Category B tests. Noise Rejection: Common Mode - >120 dB, Normal Mode - >60dB								
Efficiency % (on-line)	85	88	88	90	90	91	90	90	
Heat (on-line) BTU/hr.	361	372	465	474	568	742	1138	1896	
kW/hr.	0.106	0.10	0.13	0.166	0.166	0.217	0.333	0.556	
Battery Charger (DC)	12V, 4A		12V, 4A		48V, 4A		48V, 5A		
Safety Certification	UL, CSA (CUL)								
EMI Compliance	FCC Class A, Complies with European Electromagnetic Compatibility Directive 89/336/EEC								
Testing Standards	ANSI/IEEE C62.41 (1980); ANSI/IEEE C62.45 (1987); IEC 801-2, 801-4, 801-5								
Communication	DB25 communication port with RS-232 serial communications, alarm and inverter contact closures, and EPO shutdown.†								

Environmental								
Operating Temperature	0° to 40° C							
Storage Temperature	-20° to +60° C (-20° to +40° C if battery not removed)							
Relative Humidity	5 to 95% without condensation							
Audible Noise (dBA)	48	50	50	50	50	51	50	52
Altitude	3050 m (10,000 ft.) maximum							

*.8, 2.1 and 3.1 kVA models can be configured with 21.25 inch depth. Consult factory. †4.3 kVA and 7 kVA models include front panel keypad and display.
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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France: 33.1.6012.7400
Germany: 49.7841.666.0
Italy: 39.02.66.04.05.40
Norway: 47.23.03.65.50
Sweden: 46.8.598.940.00
United Kingdom: 44.1753.608.700

ASIA PACIFIC
Australia/NZ: 61.2.9878.5000
China: 86.21.6361.5599
HK/Korea/Taiwan: 852.2745.6682
India: 91.11.2649.9414 to 18
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