Eaton FERRUPS Rackmount 60 Hz

Unmatched 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 for unexpected blackouts
- Complete offering of LanSafe® power management software included to ensure data integrity
- Provides investment protection with a two-year limited warranty and $250,000 load protection guarantee (U.S. and Canada)

Product snapshot

Rating:	850 VA–7 kVA
Input voltage:	120/208/240
Output voltage:	120/208/240
Frequency:	60 Hz
Configuration:	Rackmount

Eaton® FERRUPS® 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-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) as well as 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 $250,000 for damage to connected equipment resulting from a spike or surge (U.S. and Canada only).

Powering Business Worldwide

Technical specifications

Model		850 VA	1.4 kVA	2.1 kVA	3.1 kVA	7 kVA*
Model No.		FES850 VA	FES1.4 kVA	FER2.1 kVA	FER3.1 kVA	FER7 kVA
Capacity (kVA/kW)		.8/.6	1.4/1	2.1/1.5	3.1/2.2	7/5
Dimensions H x W x D	inches	9.75 x 16 x 21.25	9.75 x 16 x 21.25	9.75 x 16 x 26.25	9.75 x 16 x 26.25	19 x 16 x 26.25
	mm	248 x 406 x 540	248 x 406 x 540	248 x 406 x 667	248 x 406 x 667	483 x 406 x 667
Front panel H x W	inches	10.5 x 19	10.5 x 19	10.5 x 19	10.5 x 19	19.25 x 19
	mm	267 x 483	267 x 483	267 x 483	267 x 483	489 x 483
Battery pack H x W x D	inches	Internal	Internal	Internal	Internal	8.3 x 16.25 x 24.25
	mm					211 x 413 x 616
Weight (includes batteries)	lb	105	150	220	238	580
	kg	48	68	100	108	263
Input—hardwired connection circuit breaker requirement (contact factory for powercord options)		120=10A 208=5A 240=5A	120=15A 208=10A 240=10A	120=25A 208=15A 240=15A	120=35A 208=20A 240=15A	120=65A 208=40A 240=35A
Output connection		Hardwired output is standard. Contact factory for receptacle options.				
Typical runtime: (minutes)	full load	11	14	24	14	12
	half load	28	36	58	35	33

Operation

Nominal input voltage		120/208/240				
Input voltage range		+15%, -20%				
Operating frequency		60 Hz (online: ±0.01 Hz to ±3 Hz adjustable, on inverter: ±0.005 Hz)				
Nominal output voltage		120/208/240				
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—>60 dB				
Efficiency % (online)		85	88	90	91	90
Heat (online)	BTU/hr	361	465	568	742	1896
	kW/hr	0.106	0.136	0.166	0.217	0.556
Battery charger (DC)		12V, 4A	12V, 4A	48V, 4A	48V, 4A	48V, 5A
Safety certification		UL, CSA (CUL)				
EMI compliance		FCC Class A				
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	51	52
Altitude	3050m (10,000 ft) maximum				

* 7 kVA model includes front panel keypad and display. All specifications typical and are subject to change without notice.

PowerChain Management®

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