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
- Enables automatic shutdown of UPS-protected devices with NetWatch Client 5.0 software
- Provides investment protection with a two-year limited warranty and $250,000 load protection guarantee (U.S. and Canada)

Product snapshot

Rating: 1.4 kVA–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).

Eaton NetWatch Client 5.0 has tested compatible with Cisco Unified Communications Manager 4.3. Go to www.eaton.com/PQ/cisco for disclaimer.
## Technical specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>1.4 kVA</th>
<th>2.1 kVA</th>
<th>3.1 kVA</th>
<th>7 kVA*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model No.</strong></td>
<td>FES1.4 kVA</td>
<td>FER2.1 kVA</td>
<td>FER3.1 kVA</td>
<td>FER7 kVA</td>
</tr>
<tr>
<td><strong>Capacity (kVA/kW)</strong></td>
<td>1.4/1</td>
<td>2.1/1.5</td>
<td>3.1/2.2</td>
<td>7/5</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H x W x D</td>
<td>inches</td>
<td>9.75 x 16 x 21.25</td>
<td>9.75 x 16 x 26.25</td>
<td>9.75 x 16 x 26.25</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>248 x 406 x 540</td>
<td>248 x 406 x 667</td>
<td>248 x 406 x 667</td>
</tr>
<tr>
<td><strong>Front panel</strong></td>
<td>inches</td>
<td>10.5 x 19</td>
<td>10.5 x 19</td>
<td>10.5 x 19</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>267 x 483</td>
<td>267 x 483</td>
<td>267 x 483</td>
</tr>
<tr>
<td><strong>Battery pack</strong></td>
<td>inches</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>248 x 406 x 540</td>
<td>248 x 406 x 667</td>
<td>248 x 406 x 667</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>lb</td>
<td>150</td>
<td>220</td>
<td>238</td>
</tr>
<tr>
<td></td>
<td>kg</td>
<td>68</td>
<td>100</td>
<td>108</td>
</tr>
<tr>
<td><strong>Input—hardwired connection circuit breaker requirement</strong></td>
<td></td>
<td>120=15A</td>
<td>120=25A</td>
<td>120=35A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>208=20A</td>
</tr>
<tr>
<td><strong>Output connection</strong></td>
<td></td>
<td>Hardwired output is standard. Contact factory for receptacle options.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Typical runtime:</strong></td>
<td>full load</td>
<td>14</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>half load</td>
<td>36</td>
<td>58</td>
<td>35</td>
</tr>
</tbody>
</table>

### 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
- **Output voltage waveform**: Sine Wave
- **Output voltage THD**: 5% or less 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 rejections**: common mode—>120 dB, normal mode—>60 dB
- **Efficiency % (online)**: 88, 90, 91, 90
- **Heat (online)**: BTU/hr 465, 568, 742, 1896
- **Heat (kW/hr)**: 0.136, 0.166, 0.217, 0.566
- **Battery charger (DC)**: 12V, 4A
- **Safety certification**: UL, CSA (CUL)
- **EMI compliance**: FCC Class A
- **Communication**: RS232 serial port (DB-25), plus contact closures

### 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)**: 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.