Faster Recovery From Power Failures

An industrial uninterruptable power supply (UPS) can enable your production process to recover quickly from a line power interruption, saving you lost production time and work in process. Sometimes users think that because there isn’t a battery large enough to keep the process itself going, a UPS won’t make any difference. What a UPS can do effectively, is to keep the control system, networks and sensors powered, so when power returns, the control system knows where everything is and can start up without having to completely reset and clear the work in process.

The 1609 is uniquely designed for the industrial market to provide back-up AC power to the control cabinet. The 1609 will provide back-up power to bridge dips, sags, or brief losses of power. If necessary, the 1609 will facilitate a safe shut-down of your industrial PC, PLC, data logging HMI, or any other critical device in the control scheme. Without a 1609 in place, the customer is faced with nuisance power dips, extended down-time, and potential machine damage; all of which can result in significant and costly challenges.

The newer technologies of industrial controls are much more sensitive to power fluctuations, the need for clean consistent reliable power continues to grow as industrial automation and process control continues to migrate more towards more sensitive electronic controls and extensive networking. Industrial UPS products are about increasing system reliability and minimizing down time due to power disruptions and product failures in the control system.
<table>
<thead>
<tr>
<th></th>
<th>Panel Mount</th>
<th>Integrated Dry I/O Contacts</th>
<th>Remote On/Off</th>
<th>Replaceable Surge Protection</th>
<th>EtherNet/IP</th>
<th>USB</th>
<th>AVR</th>
<th>Expandable Battery</th>
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</thead>
<tbody>
<tr>
<td>1609-B</td>
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<td>1609-D</td>
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### Input

<table>
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<tr>
<th>Capacity</th>
<th>VA 1609-B</th>
<th>VA 1609-D</th>
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</thead>
<tbody>
<tr>
<td>600</td>
<td>600VA (390W)</td>
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</tr>
<tr>
<td>1000</td>
<td>1000VA (390W)</td>
<td>1000VA (650W)</td>
</tr>
<tr>
<td>1500</td>
<td>N/A</td>
<td>1500VA (980W)</td>
</tr>
</tbody>
</table>

**Voltage Range 120VAC/230VAC:** 90…145V/184…264

<table>
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<th>Input/Output</th>
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<tbody>
<tr>
<td>1609-B</td>
<td>120V</td>
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<tr>
<td></td>
<td>230V</td>
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<tr>
<td>1609-D</td>
<td>120V</td>
</tr>
<tr>
<td></td>
<td>230V</td>
</tr>
</tbody>
</table>

**Capacity Frequency:** 50/60Hz +/- 3Hz

**PFC:** None (Load power factor is reflected in the input line)

### Output

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**Online Output Range:** 120VAC, 1609-B: 96…138, 1609-D: 108…132

**Transfer Point Accuracy:** +/- 3%

**On Battery Run Time:** 25 Minutes (at 25 degree C, full R load)

**Rated Capacity:** 12V/5.5Ah

**Charger:** Current limited, constant voltage float charger

**Recharge Time:** Less than 8 hours to 90% capacity after discharged with full load

**Lifetime:** 2–3 years at 25 degree C ambient

### Environmental

**Operating Temperature — Standard Battery:** 0°C—40°C (32°F—104°F)

**Operating Temperature — Hi Temperature Battery:** 0°C—50°C (32°F—122°F)

**Storage Temperature:** -15…45°C (5°F…113°F)

**Altitude:** Operating: 0…6600 feet (0 to 2000 meters)

**Humidity:** Operating/Storage: 95% RH (Non-condensing)

**Heat Output:**

- On Line, Full load: 217 BTU per hour
- On Line, Full load, Charging: 296 BTU per hour
- On Battery: Full load: 1331 BTU per hour

**Audible Noise:** 50 dBA at front side one meter

**Short Circuit Protection**

- **Crest Factor:** 2.2:1

**Efficiency**

- On Battery: 75% (Typical with resistive load)
- On Line: 86% (Typical with resistive load excluding AVR mode)

**Protection**

- **Surge:** 380 Joules (Total Performance Rated With 10*1000ms Pulse)
- **Overload:** >110–130% Shutdown after 10 Seconds
- **Output Short On Line:** Premises branch circuit over-current protection
- **Output Short On Battery:** Shutdown
- **Thermal Protection:** UPS inside temperature 60 degree C
- **Bypass:** N/A

### Regulatory

- **Safety:** UL1778, CSA C22.2 No. 107.3–05, EN/IEC62040–1
- **EMC:** FCC & CE (Class A)
- **Markings:** UL, CUL, FCC, CE

### Battery Pack

- **Battery dependent.**
- **1609-B 600E & B 1000E limited to 12 minutes.**

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