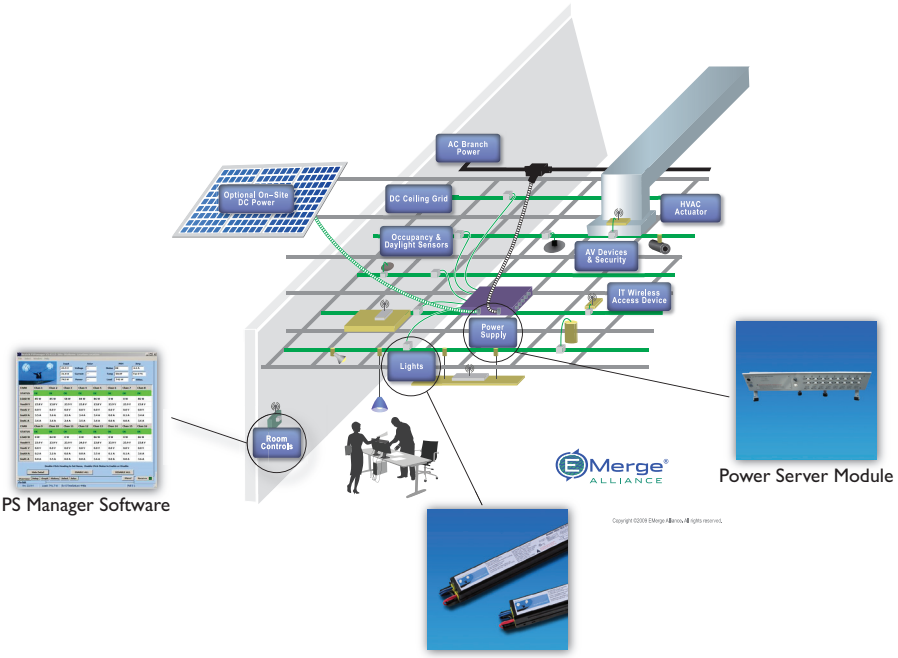
Nextek Power Systems

Nextek Power Server Module
Model 1600-C2 DC Power Supply
Model 1600-C2-24V ALT DC Power Supply
16 Channel, Class 2, 24 V DC Output

Power Server Module

- Nextek's **Power Server Module** converts 208 or 240 V AC power to 24 V DC through 16 individual Class 2 outputs. The Power Server Module has a wireless remote control and monitoring system.
- The **system advantage** is that the Power Server Module provides a safe, low-voltage DC distribution system that allows quick plug-and-play, energy efficient and individually controllable Direct Current (DC) lighting and other loads.
- The **patented triangular design** of the Power Server Module makes for a clean fit into a suspended ceiling grid for ease of installation and removal of ceiling tiles.



PS Manager Software

Power Server Module

DC Ballast

Why Class 2?

Class 2 circuits are power limited to 100 Volt-Amperes (Watts) and can be installed using more relaxed Class 2 wiring methods. A Class 2, 24 Volt DC circuit provides acceptable protection from electrical shock and fire initiation.

Clean, Efficient and Less Expensive Power

- Easy conversion of AC lighting fixtures to DC-powered systems
- Easy conversion of AC grid power into DC power for commercial building applications
- Highly efficient management of peak loads
- Complete continuity of supply through the seamless integration of available rechargeable batteries
- Complete continuity of alternative energy sources such as PV, micro turbines and fuel cells

In Addition – Unlike conventional PV installations utilizing DC to AC inverters that must be shut down in the event of a grid power failure (anti-islanding), the Nextek system can stay on and continue to support the DC loads by combining all available DC sources.

Why A Power Server Module?

Over the last 50 years, we have moved steadily from an electro-mechanical to an electronic world—a world where most of our electrical devices are driven by DC, and where most of our non-fossil fuel energy sources (such as photovoltaic cells and batteries) deliver their power as a DC supply.

The cost of Alternating Current (AC) - Despite these changes, the vast majority of today's electricity is still generated, transported and delivered as AC. Converting AC to DC and integrating alternative DC sources with the mainstream AC supply are inefficient and expensive activities that add significantly to capital costs and lock us all into archaic and uncompetitive utility pricing structures.

Take advantage of DC efficiency - Nextek's AC/DC integration technology represents a breakthrough in on-site electrical management, combining the availability of AC power with the quality and efficiency of a DC supply.

eMerge™ ALLIANCE REGISTERED

NEXTEK Power Systems

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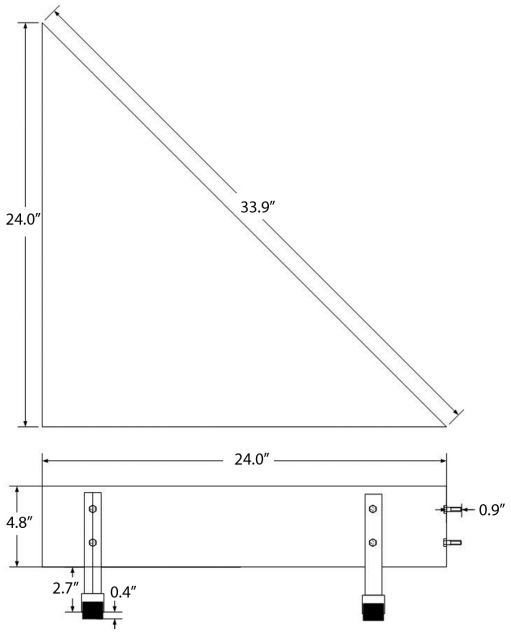
POWER SERVER MODULE SPECIFICATIONS:

STANDARDS / SPECIFICATIONS

- **UL2043** – Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces
- **UL1310** – Class 2 Power Units
- **UL1012** – Power Units Other Than Class 2
- **UL2577** – Suspended Ceiling Grid Low Voltage Lighting Systems (Pending)
- **Emerge Alliance® Registered**
- **ZigBee® Alliance** Certification (Pending)
- **RoHS** compliant

MECHANICAL

- **Weight**
  - 21.1 pounds
- **Mounting Orientation**
  - Flat horizontal surface – using rubber feet
  - Ceiling grid – using plastic grid interconnects
- **Audible Noise**
  - Less than 15 dBA
- **Operational Environmental Limits**
  - Temperature Range 0°C – 49°C
  - Humidity: 90% RH non-condensing
  - Vibration: Low-frequency 10 – 55 Hz
- **Storage Environmental Limits**
  - Temperature Range -40°C – 60°C
  - Humidity: 95% RH non-condensing (transport and storage in protective container)
  - Vibration: Low-frequency 10 – 55 Hz
- **Construction**
  - Meets NEMA Type 1 specifications
  - Made of 20 gauge steel
  - Steel manufactured in U.S.A.
- **Installation**
  - When installed in a suspended ceiling, installation requires a minimum of 12" from the top of the ceiling grid to the deck.



ELECTRICAL

- **Input Power**
  - 208 – 240 VAC single phase, 13.5 A max., 50/60 HZ
- **ALT Input Power**
  - 24.0 – 24.5 VDC, 65 A max.
  - Only included in Model 1600-C2-24V ALT
- **Output Per Channel**
  - 24 VDC ± 5%
  - 95 W maximum current limited to 3.96 A continuous
  - Rated impulse current – 80 A for .2 mSec
- **Efficiency**
  - Quiescent power = 7W
  - 90% @ 240 VAC input; 1500 W output
- **Wireless Communication**
  - Provided through a ZigBee® module series (XBee Series2®) and a Nextek Power Systems software interface (PS Manager). See PS Manager manual for functionality and usage.

STATUS INDICATORS

System status shall be indicated by 4 different types of LED indicators on the Power Server Module as follows:

- **Power LED (bottom of Power Server Module)**
- **System Status LED (bottom of Power Server Module)**
- **ZigBee Association LED (bottom of Power Server Module)**
- **Channel Status LEDs (front of Power Server Module)**

In addition to the status indicators, control and monitoring software is available to provide additional functionality.