

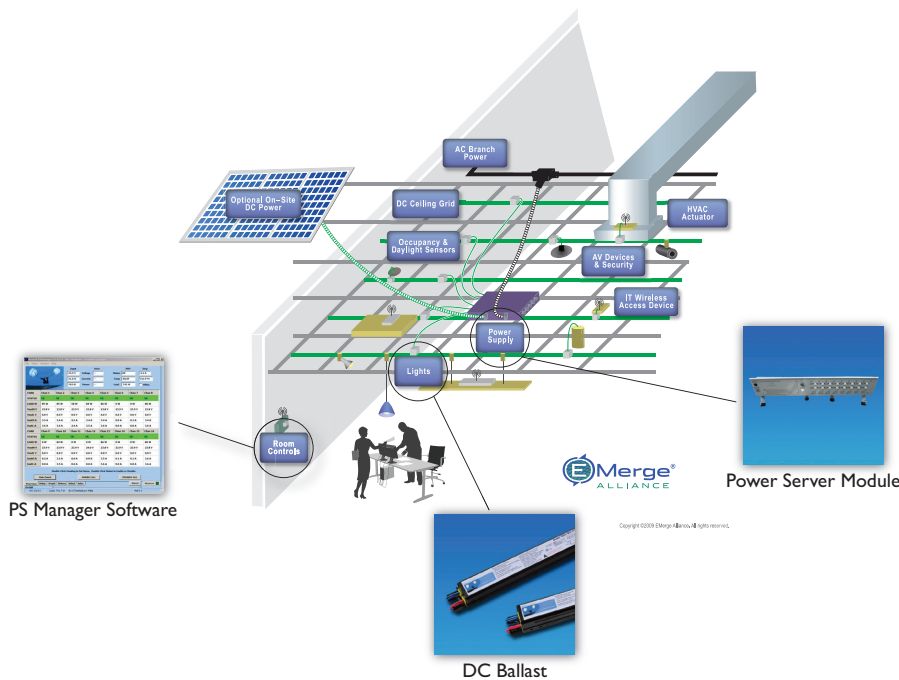
# Nextek Power Systems

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



### Power Server Module

- Nextek's **Power Server Module** converts 208 or 240V AC power to 24V 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.



### 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.

### 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.

NEXTEK Power Systems

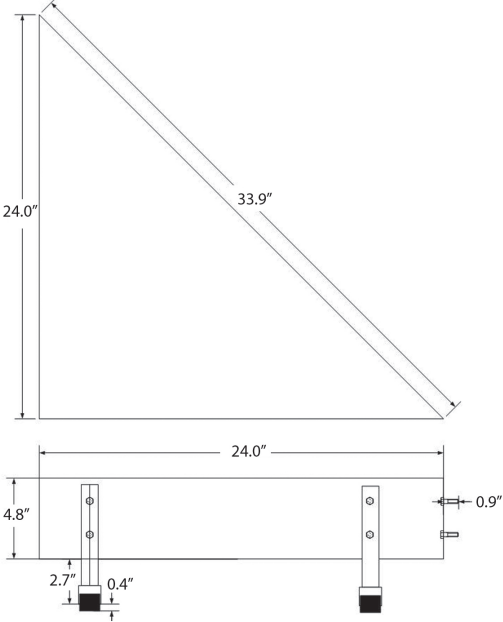


Nextek Power Systems  
461 Burroughs Street  
Detroit, Michigan 48202

Tel: 313-887-1321  
Toll free: 1 (877) 24-VOLTS  
Fax: 313-887-9433

www.nextekpower.com  
info@nextekpower.com

**POWER SERVER MODULE SPECIFICATIONS:**

<p><b>STANDARDS / SPECIFICATIONS</b></p>	<ul style="list-style-type: none"> <li>• <b>UL2043</b> – Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces</li> <li>• <b>UL1310</b> – Class 2 Power Units</li> <li>• <b>UL1012</b> – Power Units Other Than Class 2</li> <li>• <b>UL2577</b> – Suspended Ceiling Grid Low Voltage Lighting Systems (Pending)</li> <li>• <b>Emerge Alliance® Registered</b></li> <li>• <b>ZigBee® Alliance Certification (Pending)</b></li> <li>• <b>RoHS</b> compliant</li> </ul>
<p><b>MECHANICAL</b></p>	<ul style="list-style-type: none"> <li>• <b>Weight</b> <ul style="list-style-type: none"> <li>- 21.1 pounds</li> </ul> </li> <li>• <b>Mounting Orientation</b> <ul style="list-style-type: none"> <li>- Flat horizontal surface – using rubber feet</li> <li>- Ceiling grid – using plastic grid interconnects</li> </ul> </li> <li>• <b>Audible Noise</b> <ul style="list-style-type: none"> <li>- Less than 15 dBA</li> </ul> </li> <li>• <b>Operational Environmental Limits</b> <ul style="list-style-type: none"> <li>- Temperature Range 0°C – 49°C</li> <li>- Humidity: 90% RH non-condensing</li> <li>- Vibration: Low-frequency 10 – 55 Hz</li> </ul> </li> <li>• <b>Storage Environmental Limits</b> <ul style="list-style-type: none"> <li>- Temperature Range -40°C – 60°C</li> <li>- Humidity: 95% RH non-condensing (transport and storage in protective container)</li> <li>- Vibration: Low-frequency 10 – 55 Hz</li> </ul> </li> <li>• <b>Construction</b> <ul style="list-style-type: none"> <li>- Meets NEMA Type I specifications</li> <li>- Made of 20 gauge steel</li> <li>- Steel manufactured in U.S.A.</li> </ul> </li> <li>• <b>Installation</b> <ul style="list-style-type: none"> <li>- When installed in a suspended ceiling, installation requires a minimum of 12” from the top of the ceiling grid to the deck.</li> </ul> </li> </ul> 
<p><b>ELECTRICAL</b></p>	<ul style="list-style-type: none"> <li>• <b>Input Power</b> <ul style="list-style-type: none"> <li>- 208 – 240 VAC single phase, 13.5 A max., 50/60 HZ</li> </ul> </li> <li>• <b>Output Per Channel</b> <ul style="list-style-type: none"> <li>- 24VDC ± 5%</li> <li>- 95 W maximum current limited to 3.96 A continuous</li> <li>- Rated impulse current – 80 A for .2 mSec</li> </ul> </li> <li>• <b>Efficiency</b> <ul style="list-style-type: none"> <li>- Quiescent power = 7W</li> <li>- 90% @ 240 VAC input; 1500 W output</li> </ul> </li> <li>• <b>Wireless Communication</b> <ul style="list-style-type: none"> <li>- 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.</li> </ul> </li> <li>• <b>AUX Input Power</b> <ul style="list-style-type: none"> <li>- 24.0 – 24.5 VDC, 65 A max.</li> </ul> </li> </ul>
<p><b>STATUS INDICATORS</b></p>	<p>System status shall be indicated by 4 different types of LED indicators on the Power Server Module as follows:</p> <ul style="list-style-type: none"> <li>• <b>Power LED (bottom of Power Server Module)</b></li> <li>• <b>System Status LED (bottom of Power Server Module)</b></li> <li>• <b>Zigbee Association LED (bottom of Power Server Module)</b></li> <li>• <b>Channel Status LEDs (front of Power Server Module)</b></li> </ul> <p>In addition to the status indicators, control and monitoring software is available to provide additional functionality.</p>

While Nextek Power Systems has made every reasonable effort to ensure the accuracy of the information in this catalog, Nextek Power Systems does not guarantee that it is error free, nor do they make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. Nextek Power Systems, Inc. reserves the right to make any adjustments to the information contained herein at any time without notice. The specifications in this catalog are for references purposes only and are subject to change without notice. Consult Nextek Power Systems for the latest design specifications. All trademarks are either the exclusive property of Nextek Power Systems, Inc. or other companies. Copyright 2010 by Nextek Power Systems, Inc. in the United States and other countries throughout the world.