



APPLICATION GUIDE

Power Solutions Across Every Industry

INDUSTRY OVERVIEW

Commercial grow facilities operate sophisticated environmental control systems that manage lighting, HVAC, CO2 enrichment, irrigation, and nutrient dosing with precision timing. A power interruption — even brief — can disrupt light cycles, crash environmental controllers, disable ventilation, and ultimately destroy entire crop cycles.

Grow facility electrical environments are particularly challenging. High-intensity lighting (HID and LED), large HVAC motor loads, and CO2 generation equipment share circuits with sensitive controllers and monitoring systems, creating constant voltage fluctuations and electrical noise. Many facilities operate in repurposed industrial spaces with aging electrical infrastructure that compounds these challenges.

WHY INSTALL POWER PROTECTION FOR GROW FACILITIES?

Crop Protection

Even brief light cycle interruptions during flowering can trigger hermaphroditism or reduced yields. Environmental controller failures can cause cascading crop losses worth tens of thousands per room.

Environmental Control

HVAC, CO2 enrichment, dehumidification, and ventilation systems depend on controller reliability. Power events reset setpoints and create dangerous temperature or gas concentration spikes.

Compliance & Tracking

Seed-to-sale tracking systems and security cameras must operate continuously for regulatory compliance. Power events that create gaps in records can trigger compliance violations.

Harsh Electrical Environment

High-intensity lighting, large motor loads, and CO2 generators create extreme electrical noise. Sensitive controllers and monitoring equipment need clean, conditioned power to operate reliably.



This application guide helps cultivation facility managers, MEP engineers, and system integrators select power protection solutions for cannabis, hemp, and horticultural grow operations.

EQUIPMENT PROTECTED

- Environmental Controllers
- Lighting Control Systems
- HVAC & Dehumidification Controllers
- CO2 Enrichment & Monitoring
- Irrigation & Fertigation Systems
- Seed-to-Sale Tracking Systems
- Security & Surveillance Systems
- Facility Management Workstations

RECOMMENDED MINUTEMAN SOLUTIONS

Encompass® RTXL Online UPS (1–3kVA)

- Double-conversion — eliminates all power disturbances
- Zero transfer time for critical control systems
- Ideal for CO2 monitoring and dosing systems
- Rack/Tower form factors
- Cleanest power for sensitive controllers
- Extended battery module support

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output for grow automation controllers
- Rack/Tower convertible
- Extended battery module support
- [SNMP](#) communication card slot
- Protects against utility power disturbances

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for control server rooms
- AVR for voltage instability in warehouse environments
- Protects seed-to-sale tracking servers
- Hot-swap batteries
- SNMP-ready

Endeavor® 5–10kVA Online UPS

- High-capacity for facility-level protection
- Zero transfer time
- Powers multiple grow room control panels
- Advanced power factor correction
- [SNMP](#) communication card slot
- Extended battery module support

OE SERIES POWER DISTRIBUTION UNITS (PDU)

[OE Series Basic PDU](#) — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within grow facility control racks — organizing connections to environmental controllers, irrigation systems, CO2 monitors, and tracking servers.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

[RPM® Remote Power Managers](#)

Remote cycling of grow room equipment and controllers. Outlet scheduling for maintenance. Per-outlet energy monitoring for operational cost tracking.

[SNMP Monitoring Cards](#)

Real-time UPS monitoring integrated with facility management and environmental control dashboards. Proactive alerts for power events.

[SentryHD Software](#)

Automated alerts for power events affecting grow operations. Graceful shutdown of tracking and environmental control servers during extended outages.

Free Online Tools

www.sizemyups.com

www.sizemy pdu.com

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