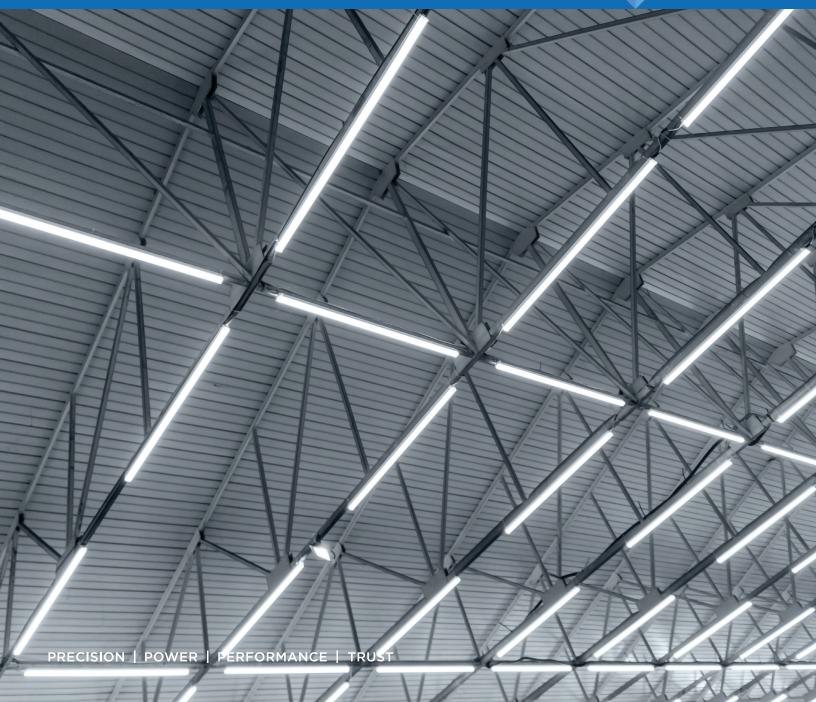


# POWER FOR INDUSTRIAL & COMMERCIAL LIGHTING

PREMIER TECHNOLOGIES | PROVEN CAPABILITIES



### Your Global Partner for Industrial & Commercial Lighting Power Supplies

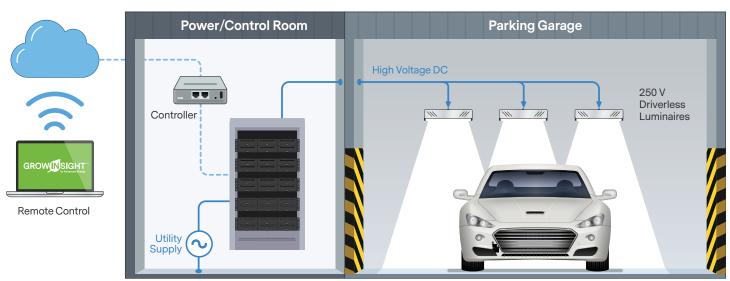
Advanced Energy's mission is to minimize your power consumption, installation expense, maintenance, and cooling facility cost, while simplifying control and monitoring for any LED fixtures.

Advanced Energy's power supplies for industrial and commercial lighting increase efficiency, simplify maintenance, and reduce cost. In conventional industrial and commercial lighting implementations, the use of individual drivers on each light fixture is inefficient. Individual control systems for each luminaire adds complexity and the additional cabling required increases your installation costs.

Our centralized, remote driver approach simplifies maintenance by eliminating the need for individual drivers. This greatly reduces or totally eliminates requirements to access luminaries high in the ceiling.

While individual drivers result in collective conversion/ heat losses, our approach helps you reduce energy costs by removing the need for additional air conditioning.

Our wide portfolio of solutions for industrial and commercial lighting puts world-class power, control, and monitoring at your fingertips.



- Lower cost
- Simpler control and monitoring
- Trusted solution

Our centralized, remote driver approach can reduce your capital investment by 24 to 38% and help you save 9 to 12% in annual running costs.

We have real customer case studies and installations that demonstrate these savings and the simplicity of control and monitoring that have been achieved.

### INNOVATIVE MODULAR AND SCALABLE POWER SOLUTIONS

### LCM4000HV Series

### **Optimized for LED lighting**



- High voltage power modules (100 to 300 VDC) combine with 19" 1U rack mount shelf (LCM12K) to create a centralized current source for medium- to large-scale LED lighting installations
- Each hot-swappable module rated for up to 4000 W, 12 kW per 1U shelf
- Cost and functionality optimized for LED lighting
- Compliant with DesignLights Consortium (DLC) technical requirements (v2.1)



- Up to 95% efficient
- Traditional 0 to 10 V (0 to 24 V) analog dimming – compatible with any PLC controllers and dimmers
- Digital control via Modbus RTU interface
- Drive any 250 VDC nominal LED luminaire
- Digitally controlled loop compensation eliminates flickering throughout the operating range
- Compatible with GrowInsight<sup>™</sup> cloud control software



### LumaDrive<sup>™</sup> Systems

### $24\,(with\,\text{NEMA}\,3R\,\text{enclosure}), 36, 72, and\,144\,\text{kW}\,\text{Pre-Wired}\,\text{Cabinets}$

Optimized for Greenhouse, Horticultural, and Industrial Lighting Applications

### Simplified installation and set up:

- Pre-wired system: no need for individual module assembly
- Reduced fixture weight with remote driver approach

### Fast, efficient maintenance with minimal disruption of ongoing operations:

- User-replaceable modules
- Ground-level installation of remote LED drivers
- Standard commissioning, service plans, and extended warranties

### High efficiency and reduced utility costs:

Native 3-phase power compatibility for large-scale operations

### Versatile and customizable:

- Precise dimming
- Compatible with numerous fixture manufacturers and all 0 to 10 V lighting controllers

### **Rugged and reliable**

- Fewer potential points of failure
- Option with NEMA 3 enclosure for outdoor environments (up to 24 kW)









Advanced Energy's PowerPro cloud-based management tool is a high-level software graphical user interface enabling control and monitoring using a standard web browser and internet connection.

- Fully integrated with Advanced Energy's remote driver distribution
- Digital dimming control

- Customizable lighting schedules for any type of LED lighting system
- Cloud control and monitoring; local controller manages schedule execution



### CENTRALIZED DRIVER: LOWER TOTAL COST OF OWNERSHIP WITH ENHANCED CONTROL AND MONITORING

CAPEX Reduction Between 24 and 38%		OPEX Reduction Between 9 and 12%	
Lower cost of lighting control system	Eliminates expensive lighting PLC and IO controllers No extra dimming control wiring needed	Reduced energy cost	High power factor and low THD Lower HVAC energy cost
Smaller HVAC system and structure cost	No additional heat within the grow area Less weight per light reducing lighting structure	Easily controlled	Optimal setting for efficient light Web based controls and monitoring
Lower installation costs, simpler electrical connection	No special junction boxes Fewer circuit breakers Lower ship weight	Lower maintenance cost	Power all in one location vs. spread out Hot swappable power modules for quicker replacement of failures
Scalable	Grow as needed	Very reliable, high MTBF	Power can be located in a separately contained area Longer LED life due to no extra heat from the driver

## OPTIMIZE SYSTEM PERFORMANCE, MINIMIZE DOWNTIME, AND MAXIMIZE SYSTEM LIFE WITH AE CERTIFIED SERVICE<sup>™</sup>

- On-site installation support ensures proper installation and optimum performance.
- Preventative maintenance programs lengthen system life and minimize downtime.
- On-site GrowInsight<sup>™</sup> software provides system monitoring and control.









### ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. We design and manufacture highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

Advanced Energy

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#### PRECISION | POWER | PERFORMANCE | TRUST

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