

1.5kW to 18kW SINGLE PHASE

EL SERIES

Emergency Lighting Inverter

Seamless Transfer System to Backup Power
Especially Valuable for HID and High Pressure Sodium Lighting
Voltage Regulation 100% of the Time

Designed to be used with non-linear
or linear load applications in:

- Manufacturing Facilities
- Warehouses
- Hospitals, Nursing Homes
- Libraries, Schools, Universities
- Malls, Theatres
- Stadiums, Arenas
- Parking Garages
- Restaurants
- Banks
- Churches

 U/L 924 Listed



CONTROLLED POWER COMPANY

"World's recognized authority in power treatment"

EMERGENCY LIGHTING REQUIREMENTS

Total Safety – The Purpose Of Emergency Lighting

We tend to take emergency lighting systems for granted, thinking that those illuminated “exit” signs at the end of the hallway will do the job. Actually, all those do is identify emergency exits.

Picture yourself in an interior stairwell or public restroom; or even in a shopping mall, theatre, arena, domed stadium, or anyplace else where a crowd of people could be in a confined indoor space. What if the electrical power failed? How safe would you feel if the lights were suddenly turned out? Sure, these facilities have emergency lighting systems, but don't you want to know with absolute certainty that these systems are going to work?

Now consider emergency lighting from an industrial perspective. In a factory or shop environment, lots of power anomalies exist. Even the slightest interruption in electrical power causes the HID or high-pressure sodium lights to go out, and these take 10-15 minutes to regain their full illumination. During a complete power failure, machines stop running and production comes to a halt. Unscheduled downtime results in lost revenue, and personal safety issues also arise in a dark manufacturing plant.



Show Me The Way Out!

So what is emergency lighting, and why is it necessary? Emergency lighting is defined as follows: “Emergency lighting must provide initial illumination that is no less than an average of 1 footcandle (10 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level.” In layman's terms, the way out must be clearly visible!

Federal, state, and local building codes in the commercial, industrial and institutional markets, including educational facilities require reliable emergency lighting which must operate continuously for at least 90 minutes in the event of a power outage. Halls and aisleways, stairwells, ramps, and all passageways leading to safety must be illuminated, and all changes in direction or routes that are not immediately apparent must be clearly marked.

Emergency lighting systems must be U/L 924 listed standard as “Life Safety Equipment”, and therefore must adhere to very strict requirements in their construction and performance. The *National Electric Code (NEC) Article 700* and the *National Fire Protection Association (NFPA) Code #101* specify the details as to when, where, what, and how emergency lighting systems must be used. These two governing bodies also require preventive maintenance of emergency lighting systems at regularly scheduled intervals, as well as record-keeping of such maintenance.

As a good engineering practice, always review the *NEC Article 700* and the *NFPA Code #101* before designing any emergency lighting system – especially for commercial, industrial, or institutional buildings.

21st Century Legislation

Apart from the existing emergency lighting codes, many U.S. cities and states have adopted new legislation that requires commercial or residential buildings with 5 or more units of occupancy to have a **centralized emergency lighting** system. This is the new trend for the 21st century, and it won't be long before all U.S. cities and states follow suit. Controlled Power Company's **EL Series** emergency lighting inverters are “lighting your way” into this future!

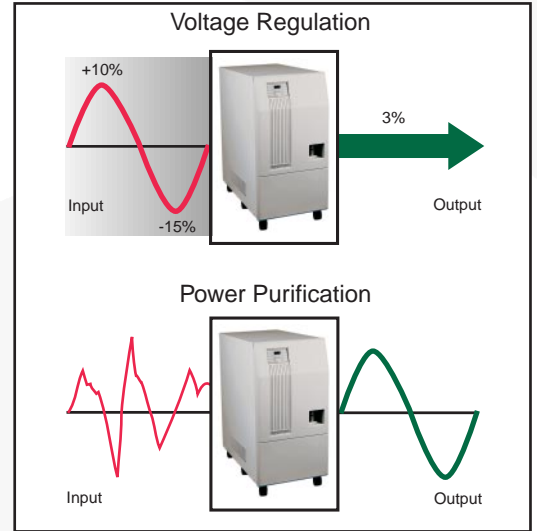
THE SEAMLESS SOLUTION

The "EL Series" – Your Seamless Solution!

Controlled Power Company's **EL Series** offers a seamless transition to back-up power for your emergency lighting system!

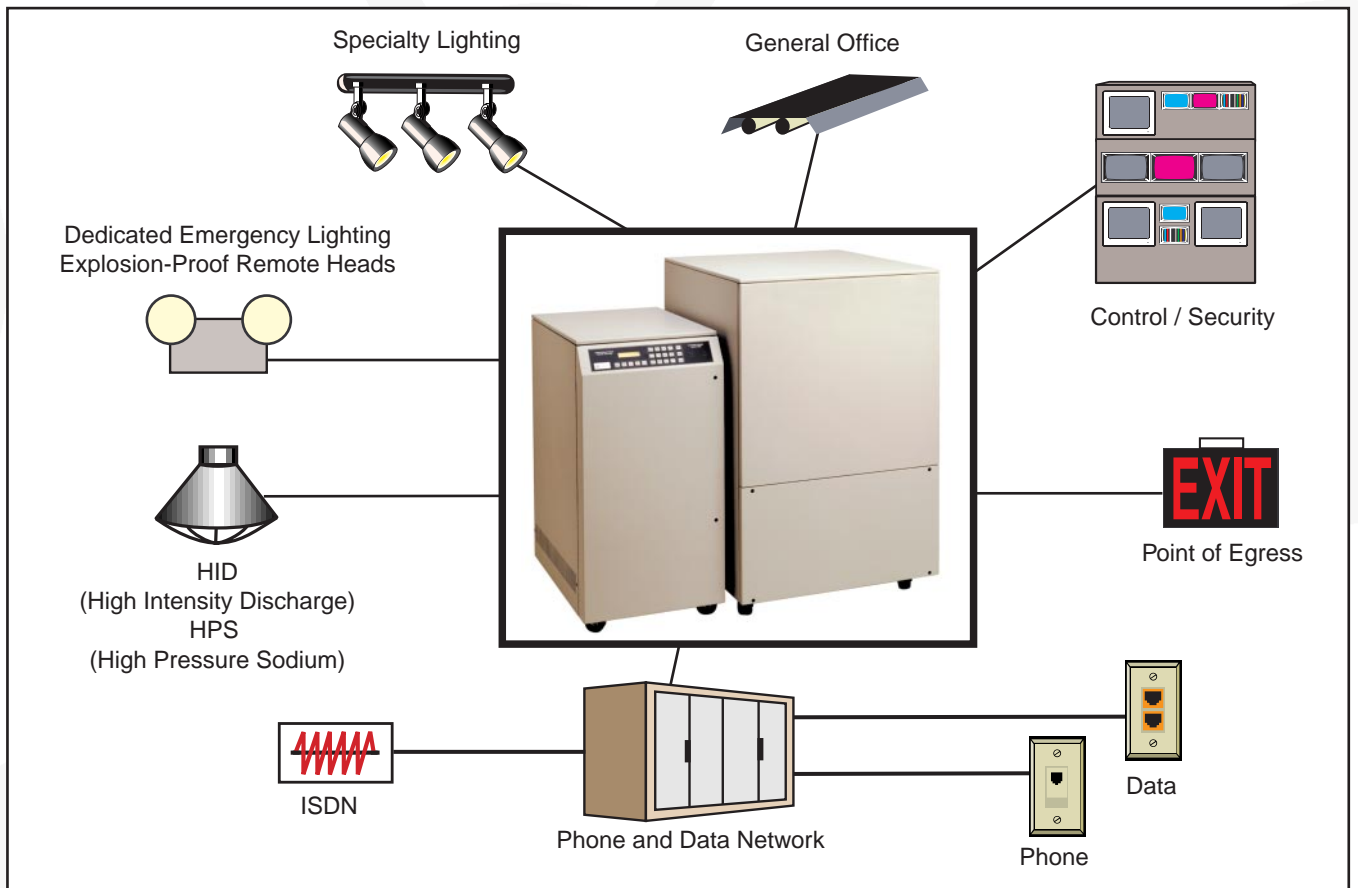
You expect your emergency lighting system to meet usage efficiency and quality factors. The **EL Series** exceeds all of your expectations, as follows:

- **Single-point Operation.** One central inverter controls many smaller circuits.
- **Easy Maintenance.** Single-point operation provides a common battery pack, and enables all testing and record-keeping to be performed from one location.
- **Voltage Regulation.** Maintains voltage for HID and high pressure sodium lighting, and also provides a steady voltage state for electronic ballasts. This results in:
 - Increased system-life
 - Less-frequent replacement of ballasts and lamps
 - Optimum operating efficiency percentage (ultimately saves the end-user money in operating and maintenance costs)
 - Maintaining longer wire runs without upsizing the wire
- **Lighting, Spike, and Surge Protection.** Extends the life of the ballasts and bulbs.
- **Harmonic Attenuation.** Reduces the input current Total Harmonic Distortion (THD) caused by electronic ballasts to <10%.
- **Voltage Distortion.** Corrects for input voltage distortion, and produces sine wave output regardless of input voltage THD.
- **15-year Battery Warranty.**



Controlled Power Company is the only manufacturer that provides seamless transition across their entire line of emergency lighting inverters. Because of the seamless transfer to backup power, the **EL Series** has no application limitations!

See the back cover of this brochure to select the **EL Series** product that uniquely solves your emergency lighting needs!



SPECIFICATIONS & PRODUCT SELECTION GUIDE

Performance

INPUTS	120v, 208v, 240v, 277v
OUTPUTS	120v, 208v, 240v, 277v
TECHNOLOGY	No Break, Seamless Transfer
RANGES	1.5kW - 18kW
RUNTIMES	Standard 90 Minutes Alternate runtimes available (10 minutes - 8 hours). Consult factory.
MTBF	100,000 - 200,000 Hours
WAVEFORM	Sine Wave
SAFETY	Input Breaker, Inherent Current Limit Lightning, Harmonic Attenuation Transient Protected
BATTERY	Sealed, Maintenance-Free, 15-Year Warranty
BATTERY CHARGER	Automatic, High-Rate, 3-Stage Charger Less Than 24 Hour Recharge
REGULATION	3% Output Voltage
INPUT RANGE	+10% to -15%

Dimensions and Weight

INVERTER (kW)	DIMENSIONS (Inches w/d/h)	WEIGHT	
		208v / 240v	277v
1.5 - 3.5	17 / 21 / 7*	67	268*
4	15 / 28 / 30	375	455
5 - 5.4	22 / 32 / 44	564	674
6 - 8	22 / 32 / 44	674	784
10 - 14.5	33 / 36 / 52	995	1115
15 - 18	33 / 36 / 52	1115	1245

*For 1.5 - 3.5kW range, add 7 inches to height for 277v models.

Battery Weight (Including Battery Cabinet)

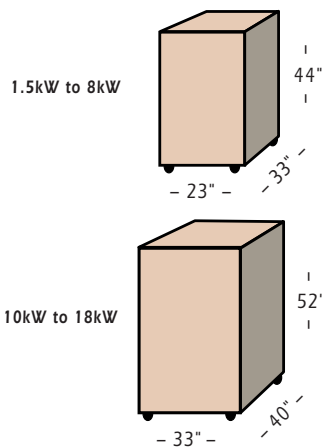
kW	WEIGHT
1.5 - 2.5	770
3 - 3.5	970
4	1042
5 - 5.4	1222
6 - 8	1815
10 - 12	2785
14.5 - 15	3390
16 - 18	3997

Optional Wall-Mount Maintenance Bypass Switch

DIMENSIONS (Inches w/d/h)	WEIGHT (lbs.)
18.25 / 7 / 24	25

Battery Module Enclosure

SHIPPED ON CASTERS,
PRE-WIRED AND PRE-TESTED



Product Selection Guide

PROFILE	AC INPUT VOLTAGE	OUTPUT VOLTAGE	HERTZ	kW / kVA	SERIES
5	A=120	A=120	X=60	1.5 / 2	EL
				2 / 3	
				4 / 5	
5	R=208 / 120	R=240 / 120	X=60	2.5 / 3.5	EL
				3 / 4	
				3.5 / 5	
5	M=208 / 240 J=277	Z=120 / 208 / 240 J=277	X=60	4 / 5	EL
				5 / 6	
				5.4 / 7	
				6 / 8	
				7 / 9	
				8 / 10	
				10 / 13	
				12 / 15	
				14.5 / 17	
				15 / 18	
				16 / 19	
				18 / 20	

Example: 5MZX-8kW-EL

Input Voltage: 208 / 240

Power: 8kW

Output Voltage: 120 / 208 / 240

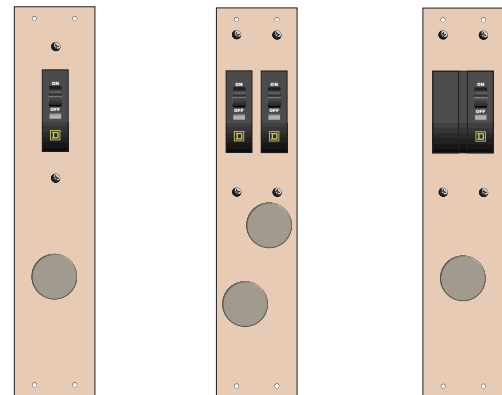
Series: Emergency Lighting

Frequency: 60Hz

Note: Consult factory for custom applications and other voltage configurations.

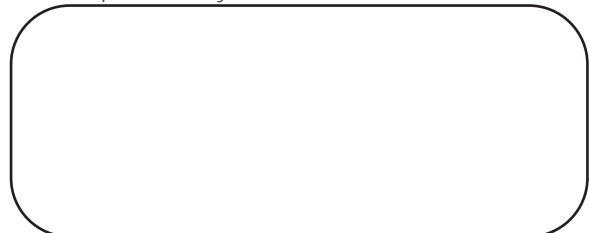
Optional Distribution Panels

kW	MAXIMUM
1.5 - 4	up to 5, 1-pole breaker*
5 - 8	up to 7 panels
10 - 18	up to 14 panels



*1.5 - 3.5kW requires optional distribution module.

Represented by:



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