



# PLD12MI

EMERGENCY LED BATTERY PACK W/SELF-TEST

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

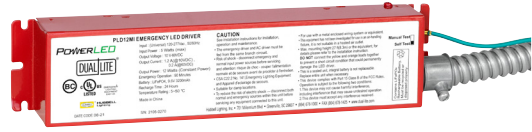
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_

CATALOG #: \_\_\_\_\_

## FEATURES

- Provides a minimum of 90 minutes of emergency lighting
- Field selectable self-test / self-diagnostic operation
- Can be used with normally-on, normally-off or switched fixtures
- Constant power design provides emergency lighting without loss of lumen output
- Auto-sensing output voltage throughout full Vf range of 10-60VDC
- 2-wire, universal input voltage: 120-277VAC, 50/60Hz operation
- Electronic AC lockout and low voltage disconnect (LVD) circuit
- 4-wire test switch and LED charging indicator supplied standard
- Optional Remote Test Switch / Charge Indicator

# POWERLED



## SPECIFICATIONS

### APPLICATION

- The Dual-Lite PLD12MI is a universal input (120-277V) emergency
- LED battery pack that works with an AC LED driver to allow an LED lighting load to be used in both normal and emergency operation.
- When normal AC power is lost, the PLD12MI operates to provide 12 watts of constant emergency power at a rated output voltage of 10-60Vdc
- The constant power design provides backup for a minimum of 90 minutes with no loss of emergency lumen output
- When used with emergency-only LED fixtures, no AC driver is needed
- The UL924 Listing allows for both field and factory installations of suitable LED loads including LED luminaires, DC voltage driven LED replacements for fluorescent lamps and others

### CONSTRUCTION

- The Dual-Lite PLD12MI consists of a compact case constructed of durable, painted steel
- The unit contains a solid-state charger with automatic transfer circuit, a 4-wire test switch and LED charging indicator light, and a long-life, Lithium Iron Phosphate battery

### INSTALLATION

- The PLD12MI emergency battery pack does not affect normal LED fixture operation and may be used with either switched or unswitched fixtures
- If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast.
- The emergency battery packs must be fed from the same branch circuit as the AC LED driver
- Due to its steel construction, the PLD12MI is designed to be mounted outside the LED fixture
- The PLD12MI emergency battery pack is suitable for use in damp locations where the ambient temperature is between 5°C (41°F) and 50°C (122°F)
- It is not suitable for installation in heated air outlet fixtures and wet or hazardous location fixtures.

### ILLUMINATION

- The PLD12MI will operate an LED load, that has a power rating of 12 watts or greater, for a minimum of 90 minutes
- Using the LED load's efficacy in lm/w, as published by the Design Lights Consortium website (<http://www.designlights.org>), Energy Star - Certified Products - product finder website (<http://www.energystar.gov/productfinder>) or given by the luminaire manufacturer on product catalog specification sheets, lumen output can be calculated by multiplying by the PLD12MI output power (12w).

### COMPLIANCES

- UL 924 Recognized and Damp Location Listed for field installation
- NFPA 101 (Life Safety Code)
- NFPA 70 (National Electrical Code)
- CEC Title 20 Compliant (CEC Battery Charger Efficiency Standard)
- LVLE Output Compliant

### WARRANTY

- 5 Year Full Warranty



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## ORDERING GUIDE

Example: PLD12MI

CATALOG #

|                      |  |
|----------------------|--|
| <b>PLD12MI</b>       |  |
| <b>Model</b>         | <b>Accessories (Order Separately)</b>                        |
| PLD12MI Battery Pack | MRTS Remote Test Switch/Charge Indicator Module <sup>1</sup> |

Notes:  
1 Fits Single-Gang Box

## PRODUCT DETAILS

### OPERATION

The PLD12MI emergency LED battery pack is designed to provide a minimum of 90 minutes of emergency lighting to commercial or industrial LED fixtures. Operation is fully automatic. A solid-state charger maintains the battery at full charge as long as utility power is present. Upon interruption of utility power, the unit will activate and the automatic transfer circuit will switch to the emergency mode, keeping the LED load illuminated for a minimum of 90 minutes. Lumen output during emergency mode is estimated as described below. Upon restoration of utility power, the PLD12MI emergency battery pack will return to the charging mode. Full battery recharge is accomplished within 24 hours. A test switch and LED status indicator light is provided for manual testing and monitoring of unit performance. When the slide switch is set to "Self-Test", the battery pack will automatically initiate a self-diagnostic test that checks the status of the battery, charger, transfer function and LED load; it will also perform a 1 minute discharge test every month, a 30 minute discharge test every 6 months and a 90 minute discharge test every 12 months.

The egress illumination levels can be estimated by doing the following:

- Find the efficacy of the LED lighting fixture. Luminaire efficacy information can be found at the Design Lights Consortium website (<http://www.designlights.org>), Energy Star - Certified Products - product finder website (<http://www.energystar.gov/productfinder/>) or given by the luminaire manufacturer on product catalog specification sheets. The LED fixture efficacy will be given in lumens per watt (lm/w).
- Lumens can be calculated by multiplying the output power of the emergency LED driver (12W) by the efficacy of the LED load. In many cases the actual lumen output in emergency mode will be greater than this calculation yields, however it will provide a good estimate for beginning the lighting design of the system.

$$\text{Lumens In Emergency Mode} = \text{Lumens Per Watt of Fixture} * \text{Output Power of Chosen Product (LUMENS)} = (\text{LM/W}) * \text{W}$$

- Using the results of this calculation and industry standard lighting design tools, calculate the anticipated illumination levels in the path of egress.

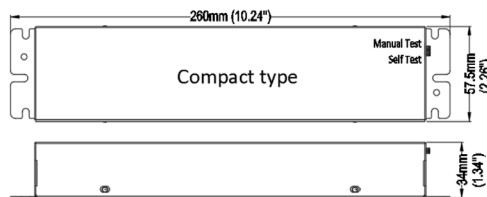
**NOTE: Consult Installation Instructions for fixture compatibility requirements. After installation, it will be necessary to measure the egress lighting illumination levels to ensure compliance with national, state and local code requirements.**

### STANDARD FEATURES INCLUDE

- Provides a minimum of 90 or 120 minutes of emergency lighting
- Can be used with normally-on, normally-off or switched fixtures
- Constant power design provides emergency lighting without loss of lumen output
- Auto-sensing output voltage throughout full Vf range of 10-60VDC
- Field selectable self-test / self-diagnostic operation
- 2-wire, universal input voltage: 120-277VAC, 50/60Hz operation
- Long life, maintenance-free Lithium Iron Phosphate battery with 5-7 year life expectancy
- Electronic AC lockout and low voltage disconnect (LVD) circuit
- 4-wire test switch and LED charging indicator supplied standard

### DIMENSIONS

NOMINAL DIMENSIONS: 10.24"L X 2.26"W X 1.34"H



### INPUT VOLTAGE

120 - 277VAC (Universal), 50/60Hz

### OUTPUT CURRENT

1.2A (@10VDC) - 0.2A (@60VDC)

### OPERATING TEMPERATURE

5°C - 50°C (41°F - 122°F)

### INPUT POWER

6.0 Watts (maximum)

### RECHARGE TIME

24 Hours (maximum)

### WEIGHT

2.2lbs (1.0kg)

### OUTPUT VOLTAGE

10-60VDC

### EMERGENCY OPERATION

90 minutes (minimum)

### OUTPUT POWER

12 Watts (constant)

### BATTERY

Long-Life, Lithium Iron Phosphate,  
5-7 years life expectancy