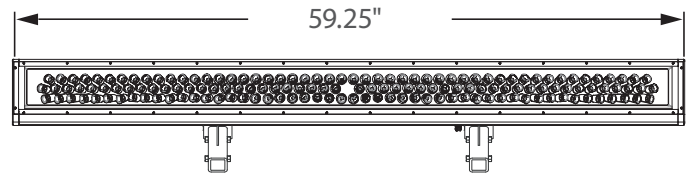


## 24VDC OPERATION



## UP TO 75% ENERGY SAVINGS

## Incredible OFF GRID Operation

### GENERAL DESCRIPTION

Neptun's Ad-Poster™ II LED billboard fixtures combine architectural form and patented design to make it an excellent choice for retrofit or new billboard applications. The 100 PCS, High Output LED's, and custom engineered optics, provide highly uniform illumination of various billboard sizes. The 24 Volt DC driver allows for compatible use with Solar or Wind powered systems. It can replace existing HID billboard fixtures up to 400W.

### APPLICATION

- 24'W x 15'H Billboard Requires 1 Unit
- 36'W x 15'H Billboard Requires 2 Units
- 48'W x 15'H Billboard Requires 3 Units

### STRUCTURE, MATERIALS, & FEATURES

- Heavy-gauge, die-cast aluminum housing with cooling fins.
- Corrosion resistant electrocoat gray finish (custom colors available).
- Slim, state of the art, low profile design for minimum wind load resistance.
- Heat and impact resistant tempered flat glass lens.
- Continuous silicone gasketing surrounds lens for IP67 weather tight seal.
- 1-1/2" I.D. Slip Fitter Accepts up to 1-1/4" Pipe or Tenon. (hardware included)
- Correlated Color Temperature of (5000°K) for greater visibility.
- High power factor, low THD driver.
- InstantON flicker-free Cold Start and Hot Re-Start.
- Up to 15 years Maintenance free operation.
- 5 Year Warranty on complete fixture. (LED's, Driver, & Housing)

### ORDERING INFORMATION

Sample Number: LED-84085-750-24VDC  
Custom options and accessories available. Please consult factory

Source	Series	Wattage	Color Temp	Voltage
LED = LED	84 = Billboard Fixture	085 = 85 W 120 = 120 W	750 = 5000°K	24VDC = 24 VDC



## PRODUCT INFORMATION

Model No.	Description	Rated Watts	Input Watts	Initial Lumens	Input Line Voltage (VDC)	Max Line Current (Amp)	Power Factor	Weight
LED-84085	LED Billboard Fixture	85	87	6,800	24	3.71	>0.98	35 lbs
LED-84120	LED Billboard Fixture	120	122	9,000	24	5.25	>0.98	35 lbs

## SPECIFICATIONS

- LED Driver ..... Constant Current
- Power Supply ..... 350mA
- Start Method ..... InstantON
- Hot Re-start ..... InstantON
- Input Line Voltage ..... 24 VDC
- Input Line Frequency ..... 50/60 Hz
- Driver Off-State Draw ..... 0 Watts
- Sound Rating ..... Class A
- LED / Driver System Life ..... 70,000 Hrs.
- Lumen Maintenance @50,000Hrs ..... > 70%
- Color Temperature ..... 5000°K
- Color Rendering Index (CRI) ..... > 70
- Minimum Starting Temperature ..... -35°C
- Maximum Starting Temperature ..... 40°C
- Lumens per Watt ..... > 70
- Power Factor ..... > 0.98
- Shock / Vibration Resistant ..... Yes
- FCC Compliance ..... Part 18, Subp. C
- IP Rating ..... IP67
- Warranty ..... 5 Year



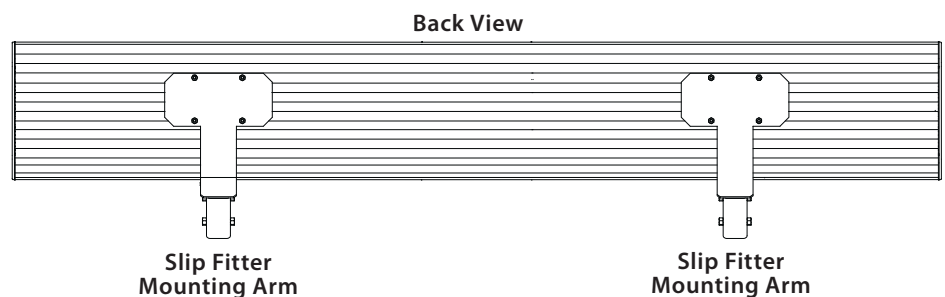
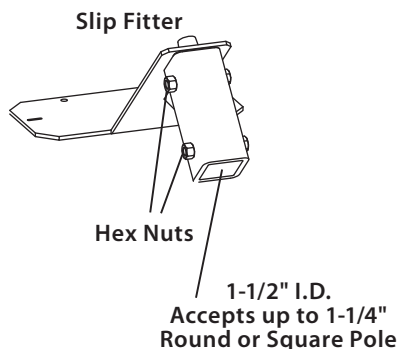
### 36' x 15' BILLBOARD

- (2) Ad-Poster II Units
- (2) Solar Panels
- (1) Battery System

### FOR BEST RESULTS

- Fixtures should be mounted at least 6 ft. from the surface of the board
- Fixtures should be mounted at least 1 ft. from the bottom or top of the board

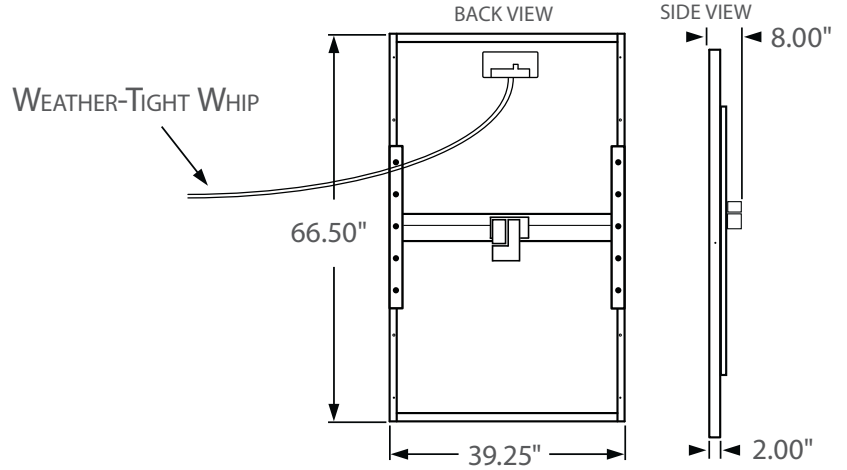
## MOUNTING OPTIONS



Neptun Light, Inc.  
13950 Business Center Drive  
Lake Forest, IL 60045  
Fax: 847.735.8004

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Spec. Rev. 8-2012



## Incredible OFF GRID Operation

### GENERAL DESCRIPTION

Neptun's Solar Panels feature a robust solar module with 60 solar cells. The meticulous design ensures a high-yield, long-term performance for every module produced. Can be used in a variety of applications along side Neptun's solar compatible lighting fixtures and battery systems.

### APPLICATION

- Street Lighting
- Parking Lot Lighting
- Billboard & Sign Lighting
- Parking Garage Lighting
- Building Accent Lighting

### STRUCTURE, MATERIALS, & FEATURES

- 6" high-efficiency 180-200 micron thick silicon cells.
- Robust anodized aluminum frame to stand up to 5400 Pa load.
- Low-iron solar glass front panel with anti-reflective surface.
- Outstanding performance at low irradiance.
- High energy yield at Low NOCT.
- High module efficiency up to 15.85%.
- Positive power tolerance: 0 - +5W.
- Frame and slip-fitter mounting system included.
- Weather-tight whips provided for all connection cords.
- 5 Year Warranty on complete unit.

### ORDERING INFORMATION

Sample Number: NE-PPV-235W-SF  
Custom options and accessories available. Please consult factory

Series	System	Module Type	Mounting
NE = Neptun Energy	PPV = Polycrystalline Solar Panel	235W = 235 Watt	SF = Slip Fitter Mount



### DATA - AT STANDARD TEST CONDITIONS (STC)

Model No.	Nominal Power (WP)	Voltage @ Nominal Power (V)	Current @ Nominal Power (A)	Open-Circuit Voltage (V)	Short-Circuit Voltage (A)	Module Efficiency (%)
NE-PPV-235W	≥ 235	30.2	7.78	37.1	8.42	14.0

\* STC (1,000 W/m<sup>2</sup>, AM 1.5 cell temperature 25°C)

\* Power sorting tolerance (as measured by flasher): -0 Watts / +4.99 Watts

### DATA - AT NORMAL OPERATING CELL TEMPERATURE (NOCT)

Model No.	Nominal Power (WP)	Voltage @ Nominal Power (V)	Current @ Nominal Power (A)	Open-Circuit Voltage (V)	Temperature (°C)
NE-PPV-235W	≥ 169	27.2	6.75	33.9	45.5

\* NOCT (800 W/m<sup>2</sup>, AM 1.5, windspeed 1 m/s, ambient temperature 20°C)

### DATA - TEMPERATURE COEFFICIENTS

Model No.	Power (% / °C)	Open-Circuit Voltage (% / °C)	Short-Circuit Current (% / °C)
NE-PPV-235W	-0.44	-0.32	+0.04

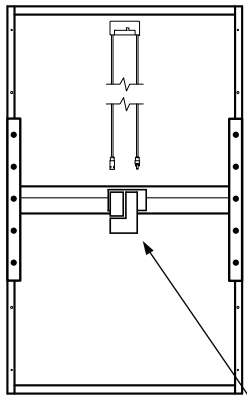
### DATA - AT LOW IRRADIATION

\* At a low irradiation intensity of 200 W/m<sup>2</sup> (AM 1.5 and cell temperature 25°C) 97% of the STC module efficiency (1000 W/m<sup>2</sup>) will be achieved

### SPECIFICATIONS

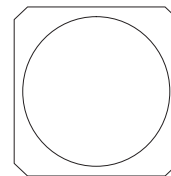
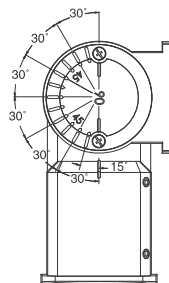
- Cell Type..... Poly-crystalline
- Cell Arrangement..... 60 (6 x 10)
- System Voltage..... 600 VDC
- Maximum Reverse Current..... 15 A
- Operating Module Temperature..... -40°C to +85°C
- Maximum Load..... 75 lbs/ft<sup>2</sup>
- Total Harmonic Distortion..... < 15%
- Weight..... 58 lbs
- EPA Rating..... 16.8 ft<sup>2</sup>
- FCC Compliance..... Part 18, Subp. C
- UL Standard 1703..... Yes
- Warranty..... 5 Year

### MOUNTING OPTIONS



Adjustable Slip Fitter Mount

#### Adjustable Slip Fitter Mount

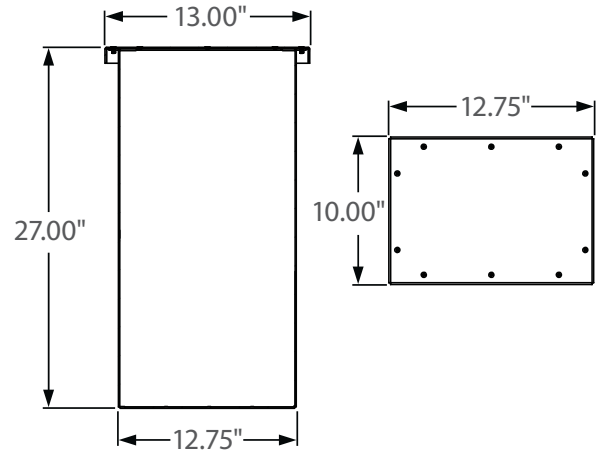
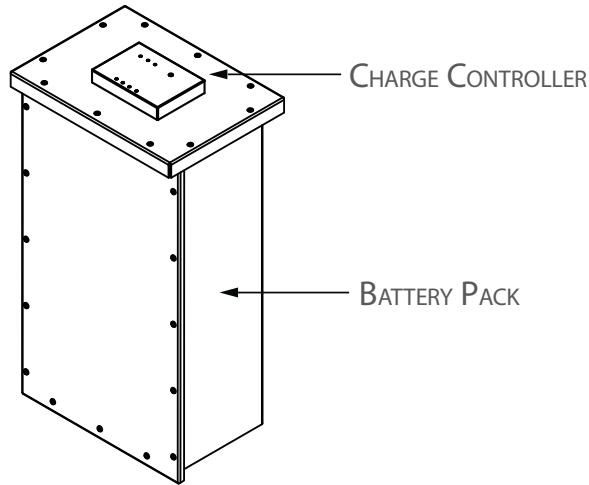


2-1/2" I.D.  
Accepts up to 2-3/8"  
Round Tenon or Pipe

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Fax: 847.735.8004

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## Incredible OFF GRID Operation

### GENERAL DESCRIPTION

Neptun's LFP 24V battery systems feature a long life, fully rechargeable unit. The exceptional storage system allows for over 30 hours of use without a single recharge. It can be used in a variety of applications along side Neptun's solar compatible lighting fixtures and PV Solar Panel systems.

### APPLICATION

- Street Lighting
- Parking Lot Lighting
- Billboard & Sign Lighting
- Parking Garage Lighting
- Building Accent Lighting

### STRUCTURE, MATERIALS, & FEATURES

- Heavy-gauge, die-cast aluminum housing.
- Lithium Iron Phosphate (LFP) Battery's.
- Intelligent PWM Charge/Discharge Controller for MPPT operation.
- Programmable On/Off time of operation for 4, 6, 8, 10, or 12 hours.
- Corrosion resistant electrocoat gray finish (custom colors available).
- Hinged aluminum door frame incorporates stainless steel hardware.
- Continuous silicone gasketing surrounds housing for weather - tight seal.
- Square or Round pole mounting brackets included.
- 5 Year Warranty on complete unit.
- Compatible with Neptun LED & Induction 24V lighting fixtures (90-100W).

### ORDERING INFORMATION

Sample Number: NE-LFP-180Ah-24V-RPM  
 Custom options and accessories available. Please consult factory

Series	System	Battery Size	Voltage	Mounting
NE = Neptun Energy	LFP = Lithium Iron Phosphate	180Ah = 180 Amp Hour	24V = 24 Volt DC	RPM = Round Pole Mount SQPM = Square Pole Mount



### PRODUCT INFORMATION - LFP 24V BATTERY

Model No.	Typical Capacity	Nominal Voltage	Discharge Cutoff	Max Charge Voltage	Max Discharge Current
NE-LFP-180Ah-24V	180 Ah	24V	AUTO @ 20% CAPACITY	40V	20A

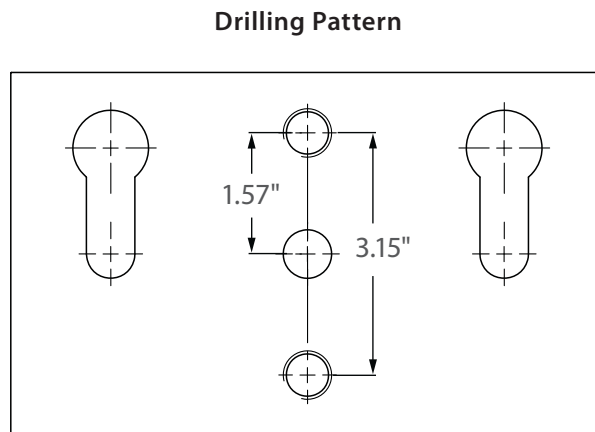
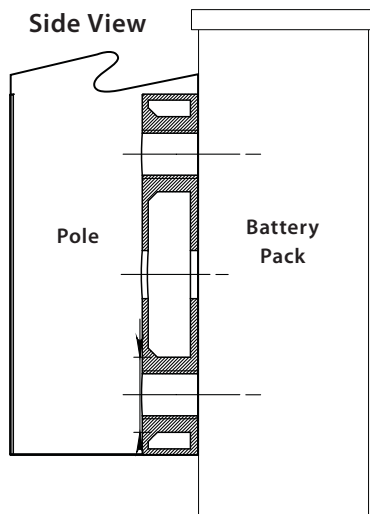
### PRODUCT INFORMATION - PWM SOLAR CHARGE CONTROLLER

Model No.	Total Rated Charge Current (Max)	Total Rated Load Current (Max)	System Voltage
NE-CL10-20-24V	20A	20A	24V/12V AUTO

### SPECIFICATIONS

- Battery Type ..... Lithium Iron Phosphate
- System Voltage ..... 24 VDC
- Charge Operating Temperature ..... 0°C - 45°C
- Discharge Operating Temperature ..... -20°C - 60°C
- Storage Temperature ..... -20°C - 55°C
- Storage Humidity ..... < 85%
- Weight ..... 58 lbs
- EPA Rating ..... 2.43 ft<sup>2</sup>
- FCC Compliance ..... Part 18, Subp. C
- UL Standard 1703 ..... Yes
- Warranty ..... 5 Year

### MOUNTING OPTIONS



Round Pole Mount (RPM)

Square Pole Mount (SQPM)

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