



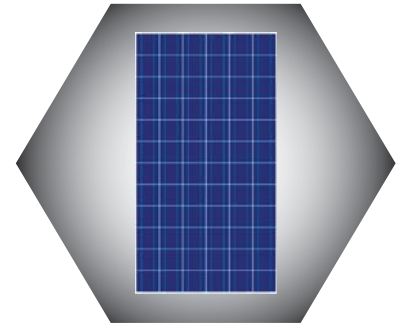
24VDC
LED Lighting

+



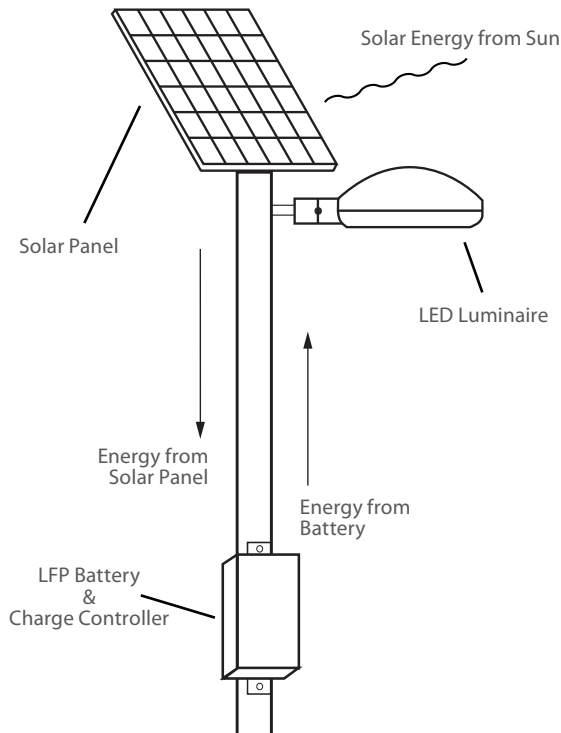
LFP
Battery System

+



Polycrystalline
Solar Panels

Incredible OFF GRID Operation



GENERAL DESCRIPTION

Neptun's 100W LED Solar Street Lighting System includes a Polycrystalline Solar Panel, LED Street Light Fixture, and long-life LFP Battery System with Charge Controller. This off grid operation eliminates many of the high costs associated with standard lighting installations. No expensive trenching, transformers or meters required. The Solar Panel and Charge Controller system allows for dusk-to-dawn operation with no monitoring needed. Neptun's exceptional LFP battery storage system allows for over 30 hours of use without a single recharge.

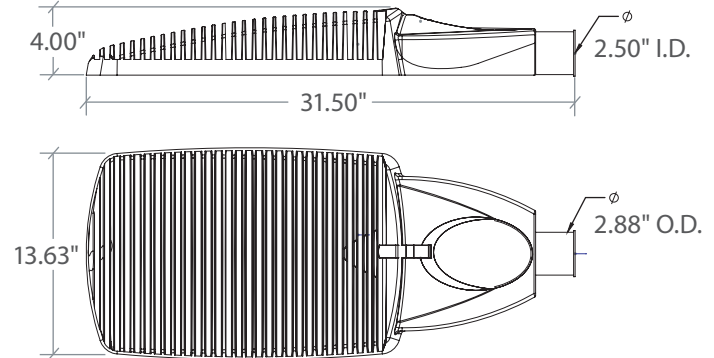
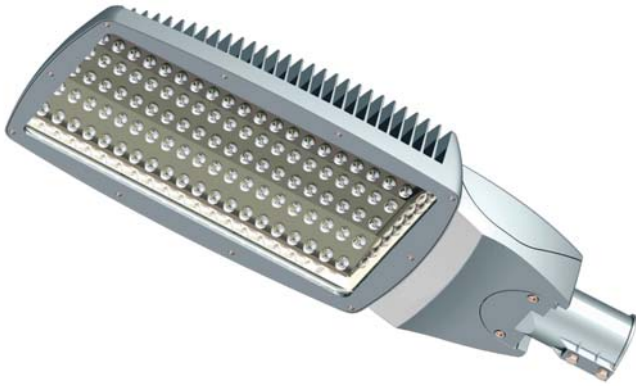
APPLICATION

- Street Lighting
- Parking Lot Lighting
- Security Lighting
- Pathway Lighting

SOLAR SYSTEM CONFIGURATION (ORDERING INFORMATION)

Induction Fixture	Battery System	Solar Panel
LED-452100-24VDC	NE-VLFP-100Ah-24VDC	NE-PPV-235W





PRODUCT INFORMATION

Model No.	Description	Rated Watts	Input Watts	Initial Lumens	Input Line Voltage (VDC)	Max Line Current (Amp)	Power Factor	Weight
LED-452100-24VDC	LED Street Light	100	102	8,000	24	4.37	>0.98	32 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 -40°C
- Maximum Starting Temperature 50°C
- Lumens per Watt > 70
- Power Factor > 0.98
- Shock / Vibration Resistant Yes
- FCC Compliance Part 18, Subp. C
- EPA Rating 0.77
- Housing IP Rating IP65
- Optics IP Rating IP66
- Warranty 5 Year

MOUNTING OPTIONS

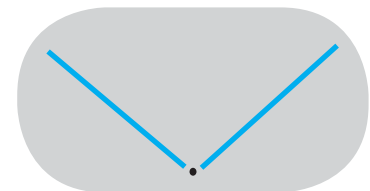


Accepts 1-1/4" - 2-3/8" O.D.
Tenon or Pipe

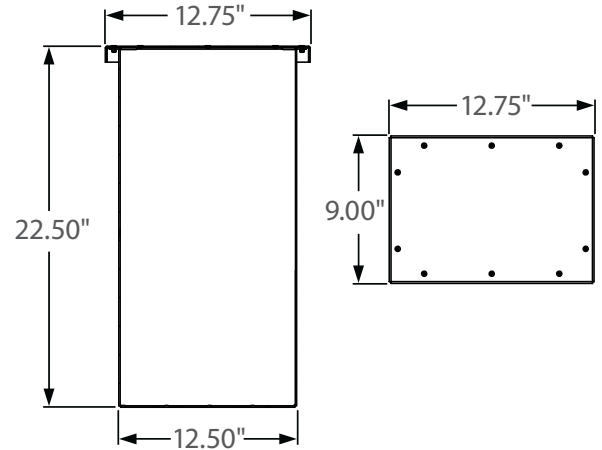
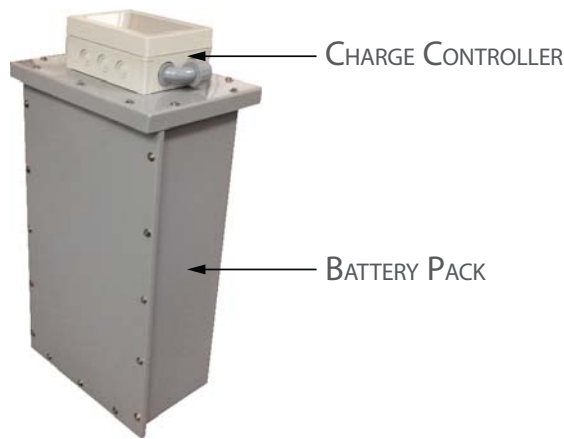


(2) 5-16" Stainless Steel Bolts

PHOTOMETRICS (See Complete IES File)



TYPE III ASYMMETRICAL



PRODUCT INFORMATION - LFP 24V BATTERY

Model No.	Typical Capacity	Nominal Voltage	Discharge Cutoff	Max Charge Voltage	Max Discharge Current
NE-VLFP-100Ah-24VDC	100 Ah	24V	AUTO @ 20% CAPACITY	40V	20A

PRODUCT INFORMATION - PWM SOLAR CHARGE CONTROLLER

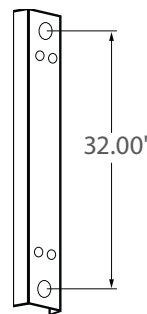
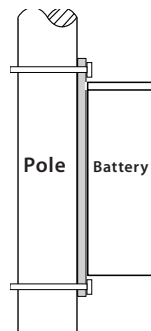
Model No.	Total Rated Charge Current (Max)	Total Rated Load Current (Max)	System Voltage
NE-CL10-20-24VDC	20A	20A	24V/12V AUTO

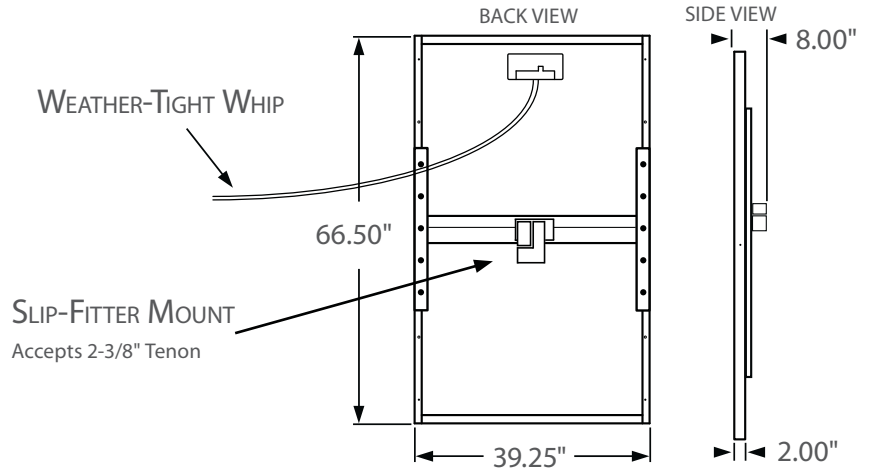
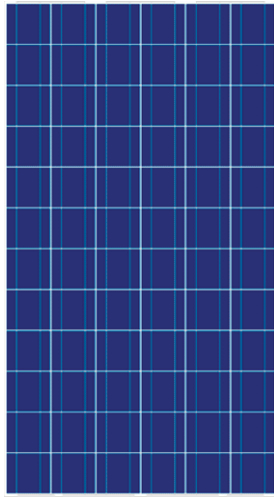
SPECIFICATIONS

- 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.....75 lbs
- EPA Rating.....2.0 ft²
- FCC Compliance.....Part 18, Subp. C
- UL Standard 1703.....Yes
- Warranty.....5 Year

MOUNTING OPTIONS

Round Pole Mount (RPM)
Square Pole Mount (SQPM)





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/m², 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/m², 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/m² (AM 1.5 and cell temperature 25°C) 97% of the STC module efficiency (1000 W/m²) 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/ft²
- Total Harmonic Distortion < 15%
- Weight 58 lbs
- EPA Rating 16.8 ft²
- FCC Compliance Part 18, Subp. C
- UL Standard 1703 Yes
- Warranty 5 Year

