

# EP-SOL-POE-0136-DBL Data Specification

Dual Solar Powered POE Station, 240W Monocrystalline Solar Panel, 25.6V/72Ah iFePO4 Battery, 1 Port 24v/0.5A@PoE, 3 Port IEEE802.3af/at @PoE+, 1842Wh System Capacity, Diecast Aluminum Housing

## Part 1: General



*\*System shown with optional cradlepoint cellular router*

The EP-SOL-POE-0136 Solar POE System is a dependable, solar-based, modular, off-grid power solution to POE devices in a variety of settings, from remote roads, parking lots, and greenways to campuses and construction sites. Encased in a robust, die-cast powder-coated aluminum housing with a heavy-duty mount, this system is built to withstand harsh environments, boasting weatherproof ratings of IP66 and IK08 (with the solar panel rated IK07), ensuring resilience against dust, water, and impacts.

The EP-SOL-POE-0136-DBL Dual Solar POE Station increases the battery storage and solar power by linking a secondary system to the main system and enables applications that require 35W 24 x 7 power. The Dual Solar POE system is powered by two 36Ah lithium iron phosphate (LiFePO4) batteries renowned for their safety and reliability with 2000 lifecycles, and harnesses solar energy through two high-quality monocrystalline panels. It supports up to four POE devices, three 48V POE+, and one 24V POE, with an optional CradlePoint LTE Remote Router for seamless connectivity. Its smooth surface design not only minimizes debris accumulation but also self-cleans during rain, ensuring maximum efficiency and longevity. The dual system has an included post-top bullhorn for mounting together onto a 2 3/8in pole top or with our pole kit. The Solar POE Station is designed using a standard spigot size allowing the system to be mounted on existing commercially available brackets for optimal flexibility. Backed by a 2-year warranty, the Solar POE Station is an ideal solution for enhancing connectivity and safety across a wide range of applications.

## **1.1. Certifications and Standards**

### **1.1.1. Mechanical Standards**

- IP 66 Water and Dust Ingress Protection Rating IK 08 Impact Rating (Solar Panel IK 07)
- Report No: DER0969220659180

### **1.1.2. Networking**

- Standard IEEE 802.3 for Ethernet
- IEEE 802.3u for Fast Ethernet
- IEEE 802.3x for flow control and back pressure IEEE802.3az for Energy Efficient Ethernet (EEE)

## Part 2: Products

### 2.1. Manufacturer

**EPOWER ON, INC**  
 329 Habersham Road, Suite 101  
 High Point, NC 27260  
 (336) 833-0493  
[www.epowerontechnologies.com](http://www.epowerontechnologies.com)

### 2.2. Hardware

|                             |  |
|-----------------------------|--|
| Monocrystalline Solar Panel | 240W/36V   |
| Batteries                   | (2) LiFePO <sub>4</sub> Batteries 25.6V/36AH                           |
| POE Switch                  | 3 Ports IEEE802.3af/at @PoE+ ,<br>and 1 Port 24v/0.5A@PoE              |
| Housing Materials           | Powder Coated Die-cast Aluminum Housing and<br>Extruded Aluminum Frame |
| Warranty                    | 2 years  |
| Finishing                   | Dark Grey Pantone 8403C  |
| IP/IK                       | IP 66/IK 08 (Except Solar Panel IK07)                                  |
| Spigot Diameter (in.)       | 2 3/8 in Pole-top Tennon   |

### 2.3. Electrical

|                           |                          |
|---------------------------|--------------------------|
| System Voltage            | 24V                      |
| System Power Capabilities | 35W                      |
| Charge Time (H)           | 8-9 during peak sunshine |

*\*Typical weather conditions are calculated from average daily charge values, the system is designed to support a 35 watt constant load and can sustain for up to four days in poor weather conditions with less than 50% of typical solar irradiance values. Device performance may fluctuate if weather conditions continue to persist but will return to normal once conditions improve.*

## 2.4. Environmental

|                       |                               |
|-----------------------|-------------------------------|
| Charge Temperature    | 32° F ~ 131° F   0° C ~ 55° C |
| Discharge Temperature | -7° F ~ 140° F   -20° C ~ 60  |
| Storage Temperature   | 32° F ~ 113° F   0°C~ 45°C    |
| EPA Rating (ft2)      | 13.34                         |

## 2.5. Packaging

|                                   |                         |
|-----------------------------------|-------------------------|
| Solar POE Station Dimension (in.) | 60.6x15.7x5.4           |
| Package Dimension (in.)           | 64.8x19x10              |
| Net Weight (±0.5lbs)              | 53/Unit (Total 106)     |
| Gross Weight (±0.5lbs)            | 62.2/Unit (Total 124.4) |

## 2.6. Compatible Accessories

- EP-SOL-BULLHORN Bullhorn for 2 3/8" Vertical Tenon - Included with system
- EP-SOL-MOUNT-RPDBL 5 in Round Pole Bracket for Dual Solar Station
- EP-SOL-MOUNT- 90 90 Degree Bracket for 6x6 Wood Post

## 2.7. Related Documents

EP-SOL-POE-0136 Solar Station Spec  
FR-7N1005P(24VPOE)\_SPEC

## 2.8. General

- The Dual Solar POE Station is suited for outdoor environments with unobstructed south facing exposure.
- The Dual Solar POE Station is designed to be mounted with the solar panels at approximately 35 degrees above the horizon with the Solar panels facing south to receive optimal solar irradiance.

## Part 3: Sample Application



Application Requirements: Provides 24x7 Power for 2 high resolution cameras, IP loudspeaker and security beacon.

- Equipment:
- 1) 1 X EP-SOL-POE-0136-DBL
  - 2) 2 X High Resolution Camera
  - 3) 1 X Loudspeaker
  - 4) 1 X Security Beacon