

# **ZEBSTAR SOLAR**

## **Solar Powered Belisha Beacon**

The Zebstar Solar is a fully engineered and rigorously tested solar-powered solution, designed to provide a reliable off-grid Belisha beacon for locations where access to mains power is difficult, impractical, or cost-prohibitive.

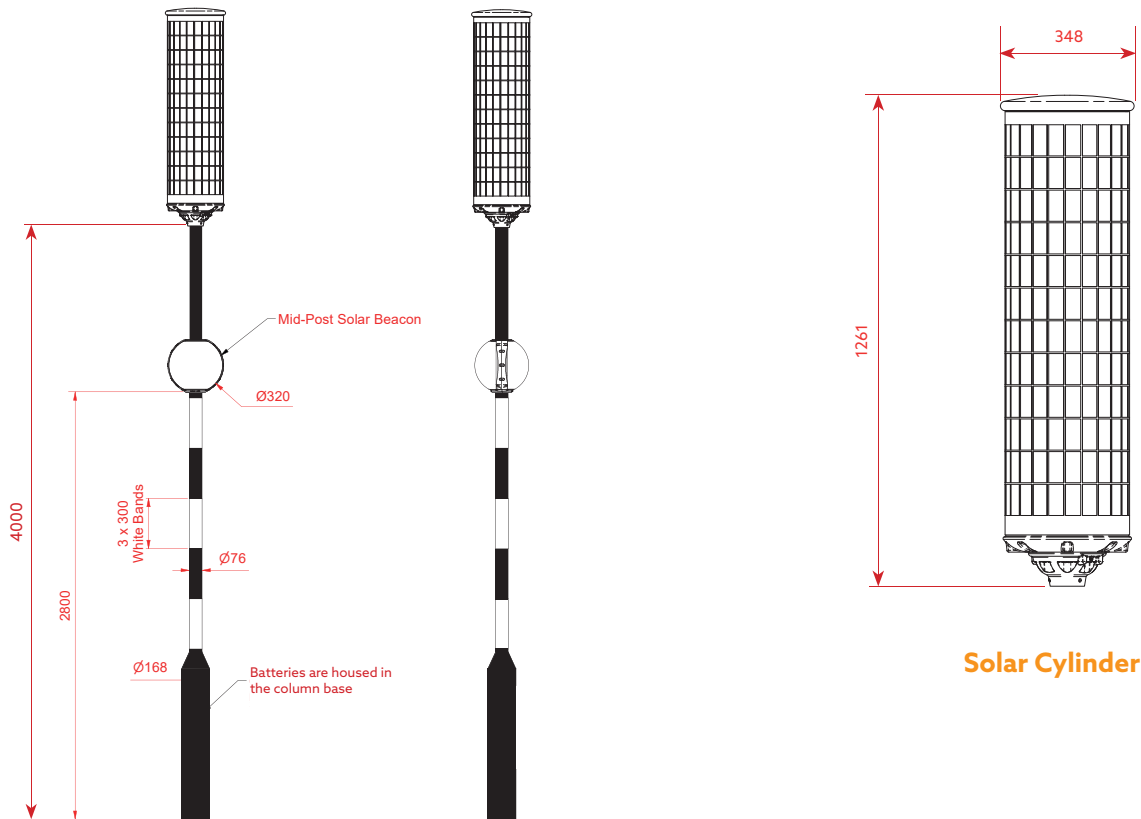
At the heart of the system is an oversized 160-watt cylindrical solar panel. Its cylindrical form factor significantly reduces installation errors associated with panel alignment, while the vertical mounting orientation enables superior collection of low-angle winter sunlight, when energy demand is typically highest. During summer months, extended daylight hours and shorter nights further enhance overall system performance. The advanced interconnection of the solar cells also minimises the effects of partial shading, ensuring consistent energy generation in challenging environments.

The system is completed with a smart solar regulator featuring Bluetooth-enabled data logging, paired with a high-quality AGM battery. This combination provides efficient energy management, system monitoring, and dependable long-term performance.

- Reliable off-grid solar Belisha beacon for sites without mains power
- 160-watt cylindrical solar panel for simple error-free installation
- Vertical mounting optimised for low-angle winter sunlight
- Reduced performance loss from partial shading
- Smart regulator with Bluetooth and AGM battery for dependable operation



## Technical Specification



## Construction

|                       |                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Solar Cylinder</b> | Rotationally moulded medium density polyethylene (MDP) in black, with a high performance 160watt flexible solar panel utilising the latest Flexible CIGS technology. Impact and shock resistant with an anti-graffiti, non stick self cleaning surface. Cast aluminium gallery mounting, polyester powder coated black with stainless steel fasteners. 5 year warranty. |
| <b>Beacon</b>         | 76mm ZEBSTAR MID solar beacon 320mm diameter meets the requirements of BS8442. See our ZEBSTAR MID data sheet for more information. 5 year warranty.                                                                                                                                                                                                                    |
| <b>Battery</b>        | 2 x 15Ah AGM battery. Battery mounting brackets Manufactured from Pre-galvanised mild steel powder coated black. Supplied with mounting screws. 3 year warranty.                                                                                                                                                                                                        |
| <b>Regulator</b>      | Victron SmartSolar MPPT 75/100 charge controller with built-in Bluetooth for VictronConnect app monitoring and configuration, and offers intelligent battery management with load disconnection to prevent deep discharge, extending battery life. 5 year warranty.                                                                                                     |
| <b>Column</b>         | 4000mm (800 p/d) galvanised mild steel column with 168mm base housing and 76mm top post painted black with three white reflective bands. Pre drilled to suit the ZEBSTAR MID and fitted out with battery brackets and wiring loom.                                                                                                                                      |

The Zebstar Solar relies exclusively on solar energy for its operation. Performance may be affected by installation location, shading, weather conditions, seasonal variations or insufficient exposure to direct sunlight. Accordingly, Portland Traffic accepts no responsibility for reduced performance or non-operation resulting from in-appropriate siting or lack of sunlight. It is the responsibility of the user/installer to ensure the product is positioned in a location that receives sufficient solar exposure to function as intended. Portland Traffic are happy to survey a site for suitability should this be required.