

Local Power Worldwide

# LE-v50 Extreme

Ultra-tough for extreme environments



Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.



### Rugged

Can survive winds up to 35m/s  
(80mph)

### Reliable

One moving set of parts and no brushes to wear out

### Small compact size

Easy to install where space is a premium

### Lightweight

At only 9kg, can be installed with ease

### Designed for sub-zero temperatures

Ideal for temperatures down to -40degC

### Fully marinised

Designed for corrosive marine environment

## Designed and proven to survive gusts of 80mph

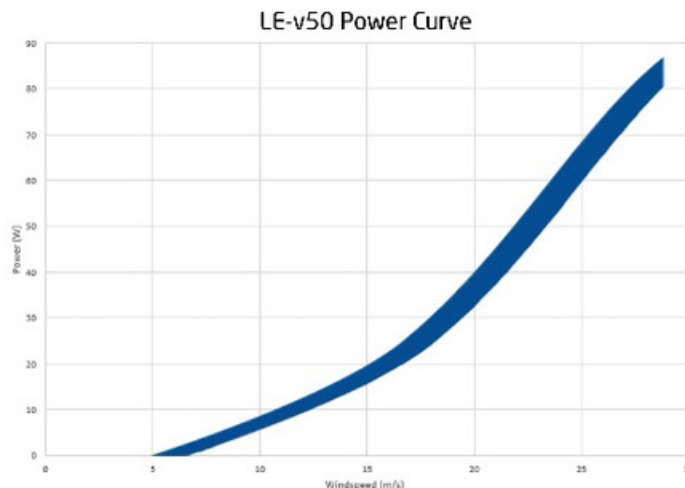
The LE-v50 Extreme fills a gap in the market where small amounts of power are required in harsh environments. This turbine is very robust having proved itself in the Antarctic, Greenland and Arctic Canada.

The LE-v50 Extreme delivers power outputs of up to 70W. Compared to similar vertical axis turbines, the LE-v50 Extreme delivers far higher output thanks to the cross-ventilated 'savourious' vertical axis rotor. This is coupled with the well proven axial flux alternator design that has been successfully used on all our turbines. With only 1 moving part, there is little to go wrong.

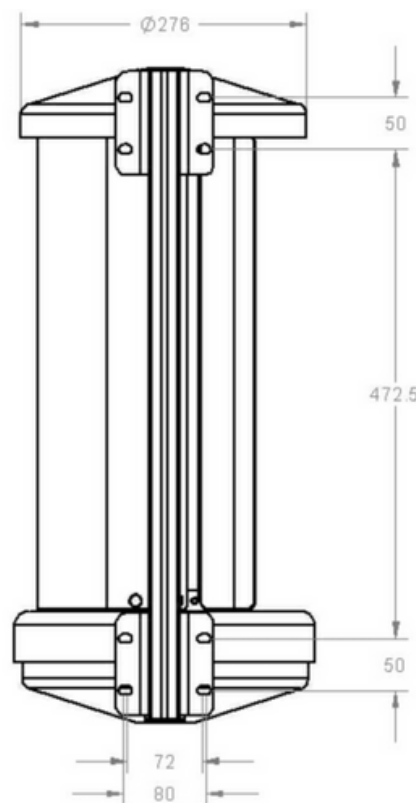
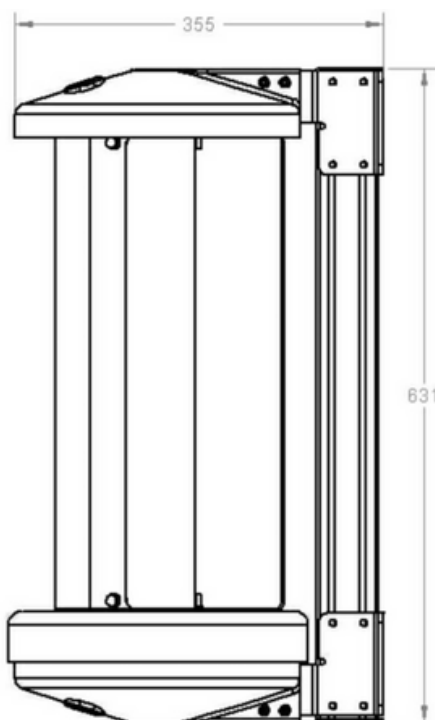
The small footprint and lightweight design allows the turbine to be installed in places where space is a premium. The turbine will receive the wind from 360 degrees without the need to yaw into position. The LE-v50 Extreme's double bearing arrangement is superior to cantilever designs found in other vertical turbines.

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Rotor diameter: 270mm Height:- 456mm  
 Rotor type: 3-Blade savonious  
 Blade material: Aluminium  
 Rated output: 10W at 12m/s (26mph)  
 Peak output: 70W  
 Cut-in speed: 5m/s (11mph)  
 Survival wind speed: 35m/s (80mph)  
 Weight: 9Kg  
 Warranty: 2 years  
 DC Output voltage: 12V, 24V, 48V



Wind turbine performance is subject to many factors. All output data contained in this document is indicative and actual turbine outputs will depend on the prevailing site and installation conditions.

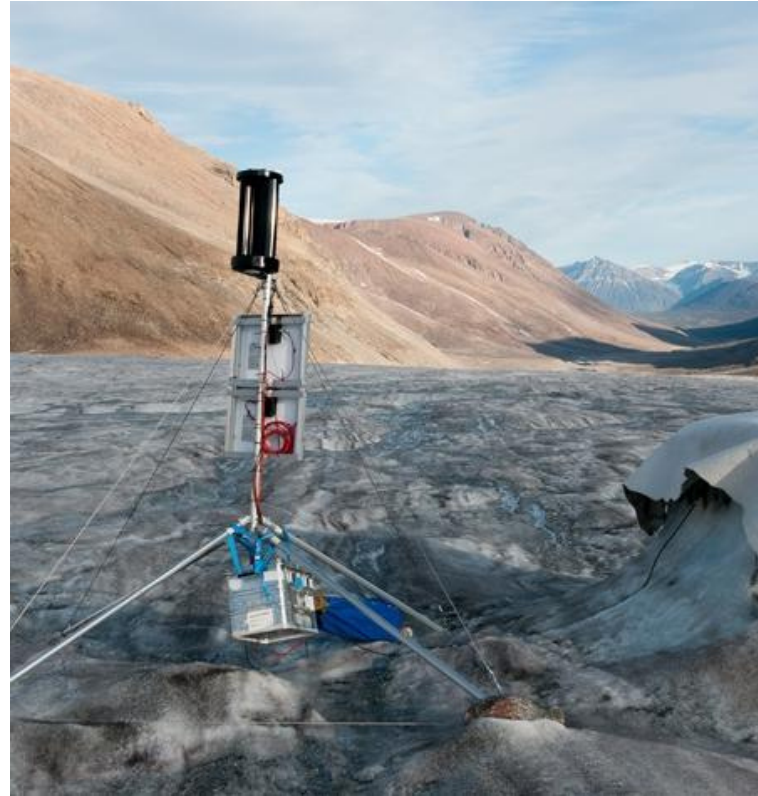


Where wind speeds can regularly reach over 27m/s (60mph), the LE-v50 Extreme is the wind turbine of choice. It features enhancements that reduce the stress and fatigue on the blades during prolonged periods of storm force winds. It is also fitted with baffle plates that prevent amage to the upper cowling.

In sub-zero temperatures, the black body absorbs UV light to help prevent ice build up while the low-temperature bearings mean the turbine continues generating power at temperatures down to -40°C.

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- Radio communications
- Telemetry
- Security
- LED Lighting systems
- Data logging
- Environmental monitoring

Our LE-v50 Extreme vertical axis turbine is specially adapted for storm force winds and sub-zero temperatures. The LE-v50 Extreme will trickle charge your batteries or provide energy for low power electronic devices such as data-logging and telemetry equipment.

In a typical stand alone system, the LE-v50 Extreme sits on a tower (see our Guyed Tower Kit) and is connected to a battery bank via a maintenance (run/stop) switch.

In locations with very high wind speeds for prolonged periods of time, a charge controller is used to divert excess power to a dump load when the batteries are full.

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