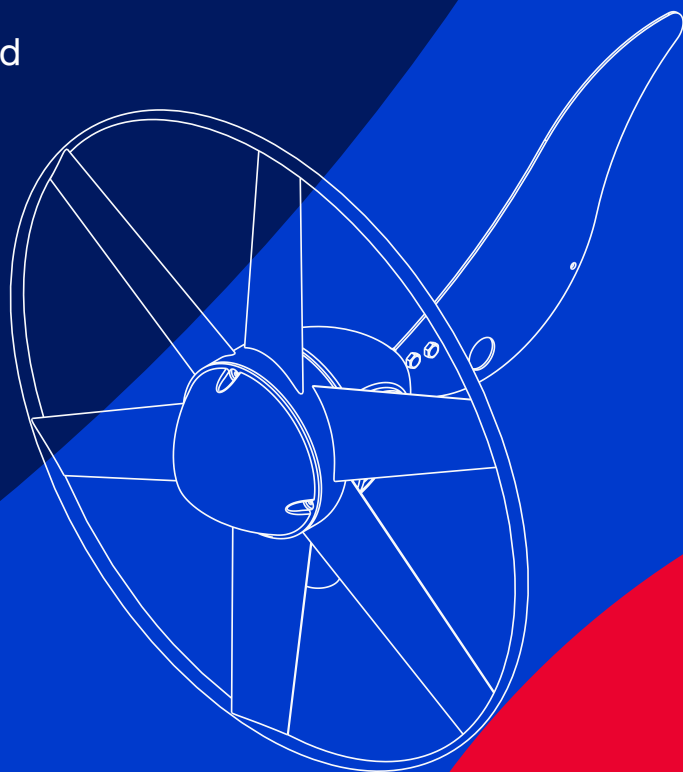


Rutland 505 Windcharger

Let's get started



User manual

Marlec | Prod.Code | Jan-2025

Rutland 505 Windcharger Manual



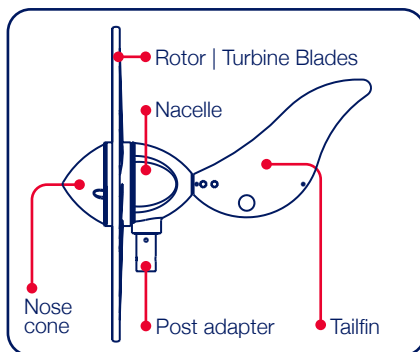
1. Introduction

Marlec introduces the Rutland 505 Windcharger, the latest innovation in small-scale wind power.

Designed with an updated tailfin design and a more efficient generator, the Rutland 505 delivers a 20% increase in energy production compared to its predecessor, the 504.

The 505 is engineered for use on boats, caravans, and off-grid locations, providing consistent power to keep your batteries charged up. Its compact size, quiet operation, and durability make it the perfect companion for renewable energy enthusiasts.

Let's get started with your new wind power solution!



2. What's in the Box?

Your Rutland 505 Windcharger package includes:

- Rutland 505 Windcharger
- SMR1 Controller
- User Manual

3. Tools Required

- Screwdriver
- Spanners (8mm and 10mm)
- Multimeter (Optional for verifying connections)

4. Safety Instructions

Before You Begin:

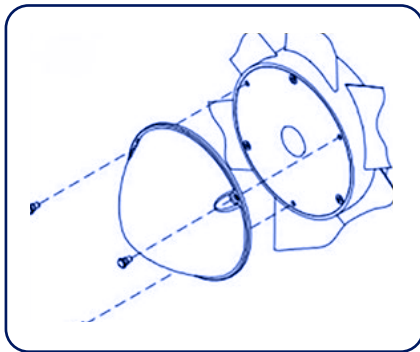
- Install the Windcharger in a safe, stable location away from hazards and obstructions.
- Ensure the mast is securely installed and capable of handling the Windcharger's load. (Marlec offers an optional marine mounting kit.)
- **Important:** Always stop the Windcharger during installation or maintenance by securing the blades.

5. Step-by-Step Installation

1 Assemble the Windcharger

Attach the blades to the hub assembly using the provided screws and nuts.

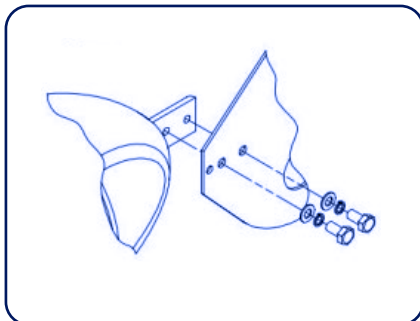
Ensure all blades are securely tightened to maintain balance during operation.



2 Install the Tailfin

Attach the pre-assembled tailfin to the rear of the Windcharger body.

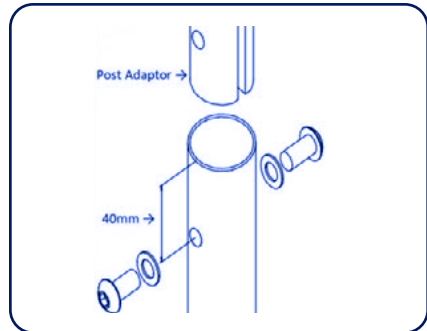
Tighten the screws securely to ensure proper stability and performance.



3 Mount the Windcharger

Mount the Windcharger onto a suitable mast (31.75mm diameter).

Ensure the mast is vertical and securely fixed to a stable structure.



4 Connect the Electrical System

Use appropriate size wire to establish connection from the Controller to the battery.

Connect the windcharger to the controller via the positive and negative terminal.

Use the multimeter to verify correct polarity and connections.

5 Final Setup

Check that the blades spin freely without obstructions.

Secure all connections and ensure the area around the Windcharger is clear.

Your Rutland 505 Windcharger is now fully operational!

6. Operating Principles

The Rutland 505 Windcharger converts wind energy into electrical power to keep your batteries charged.

Features:

- **Efficient Generator Design:** Provides 20% more energy output compared to the Rutland 504.
- **Compact and Quiet:** Perfect for use on boats, caravans, and off-grid setups.
- **Tailfin Design:** Enhances wind tracking for maximum efficiency.

7. Maintenance & Care

Regular Inspections: Check for loose bolts, damage to the blades, and secure electrical connections.

Cleaning: Wipe down the Windcharger periodically to remove dirt or debris.

Blade Care: Inspect blades for wear or cracks. Replace them if necessary to maintain optimal performance.

8. Troubleshooting & FAQ

Q: Why isn't my Windcharger generating power?

Ensure the blades are spinning freely and facing the wind.

Check the electrical connections for proper polarity and secure attachment.

Verify the battery system is properly connected and operational.

Q: Can I use the Windcharger with a solar panel?

Yes! The Rutland 505 is compatible with solar systems. A suitable charge controller is recommended for combining inputs.

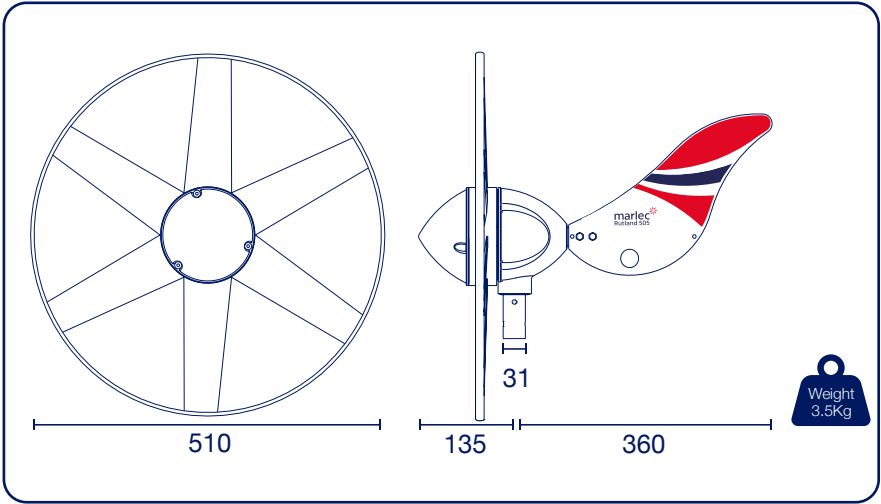
Q: What wind speed is required for power generation?

The Rutland 505 starts generating power at low wind speeds (5 knots) and optimizes output at moderate winds.

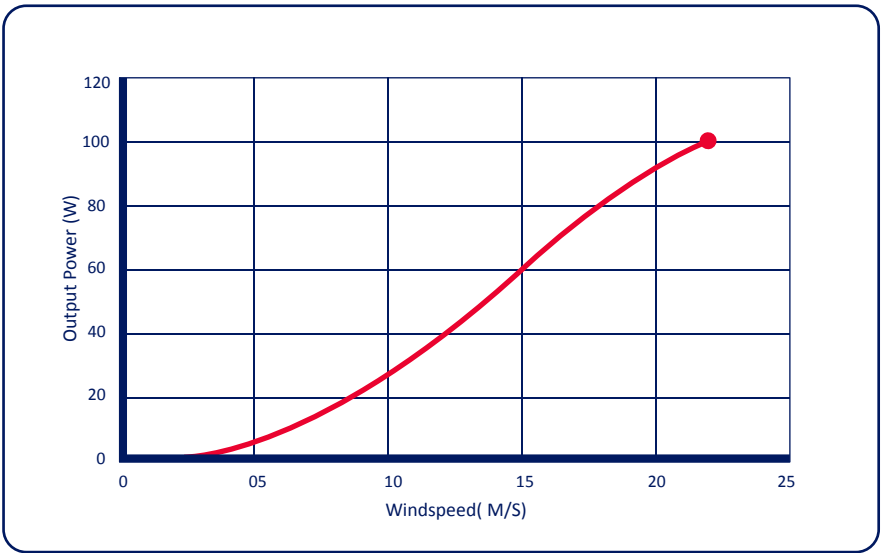
Please check Marlec TV on youtube for extra tips on troubleshooting your turbine.

**Thank you for choosing
Rutland 505**

9. Rutland 505 dimensions



10. Rutland 505 Performance



Warranty & Support

The Marlec Engineering Company Limited Warranty provides free replacement cover for all defects in parts and workmanship for 24 months from the date of purchase. Marlec's obligation in this respect is limited to replacing parts which have been promptly reported to the seller and are in the seller's opinion defective and are so found by Marlec upon inspection. A valid proof of purchase will be required if making a warranty claim.

Defective parts must be returned by prepaid post to the manufacturer Marlec Engineering Company Limited, Rutland House, Trevithick Road, Corby, Northamptonshire, NN17 5XY, England, or to an authorised Marlec agent. This Warranty is void in the event of improper installation, owner neglect, misuse, damage caused by flying debris or natural disasters including lightning and hurricane force winds. This warranty does not extend to support posts, inverters, batteries or ancillary equipment not supplied by the manufacturer.

No responsibility is assumed for incidental damage. No responsibility is assumed for consequential damage. No responsibility is assumed for damage caused by the use of any unauthorised components.

No responsibility is assumed for use of a non "furling" versions of the Rutland Windcharger where Marlec or one of its authorised agents finds that a generator incorporating a furling device should have been used.



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marlec



The new
Rutland 505



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