

TESUP ATLASX7 + CC

Atlas-X 7 KW Vertical Wind Turbine User Manual

Model: ATLASX7 + CC | Brand: TESUP

1. PRODUCT OVERVIEW

The TESUP Atlas-X 7 KW Vertical Wind Turbine is an advanced solution for generating clean, renewable electricity. Designed for efficiency and durability, it can power homes and electric vehicles, contributing to reduced carbon emissions. Its compact and aerodynamic design allows for effective power generation even at low wind speeds, making it a versatile choice for various environments.



Image: The TESUP Atlas-X 7 KW Vertical Wind Turbine, showcasing its vertical blade design and compact base unit.

Key features include a robust, enhanced body for protection against external factors, new stainless steel fasteners for improved durability, and an optimized grip between the rotor and blade shafts. It is particularly recommended for locations with high wind speeds but is capable of initiating rotation at just 5 m/s and generating power from 4 m/s.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installation, operation, or maintenance of the wind turbine. Failure to do so may result in serious injury, property damage, or electric shock.

- **Professional Installation:** Installation of the wind turbine should only be performed by qualified and certified professionals.
- **High Voltage:** The system operates at high voltages. Always ensure power is disconnected before performing any work on the turbine or associated electrical components.
- **Moving Parts:** The turbine contains moving parts that can cause injury. Keep hands, tools, and loose

clothing away from rotating components.

- **Weather Conditions:** Do not attempt installation or maintenance during adverse weather conditions such as high winds, lightning, or heavy rain.
- **Structural Integrity:** Ensure the mounting structure is capable of safely supporting the weight and wind loads of the turbine.

3. WHAT'S INCLUDED

The TESUP Atlas-X 7 KW Vertical Wind Turbine package includes the following components:

- Flanges
- Frame
- Blades (3 or 12-blade options available, customizable to wind speed)
- Shaft
- Mounting Base
- Free Charge Controller



Image: Illustration showing different blade configuration options for the TESUP Atlas-X Wind Turbine, including 3-blade and 12-blade designs, and a third type, along with their respective wind speed ranges.

4. SETUP AND INSTALLATION

The Atlas-X wind turbine is designed for straightforward assembly, but due to its nature as a power generation device, professional installation is highly recommended to ensure safety and optimal performance. The included charge controller facilitates easy connection to your grid via an inverter (not included).

4.1. Mounting the Base Unit

Secure the mounting base to a stable and appropriate structure, ensuring it can withstand the turbine's weight and operational forces. The base unit houses essential electronics and connection points.



Image: A detailed view of the TESUP Atlas-X Wind Turbine's base unit, showing its robust construction and the TESUP logo.

4.2. Assembling the Blades and Shaft

Attach the chosen blade configuration (3 or 12-blade) to the shaft, ensuring a secure and balanced fit. The improved grip between the rotor shaft and blade shaft enhances stability and performance.

4.3. Electrical Connections

Connect the turbine to the included charge controller. The charge controller manages the power output and protects the system. For grid-tied or off-grid applications, an appropriate inverter will be required to convert the turbine's output to usable AC power.

For detailed, step-by-step installation instructions, please refer to the official PDF User Manual provided by TESUP: [TESUP Atlas-X User Manual \(PDF\)](#).

5. OPERATING INSTRUCTIONS

The TESUP Atlas-X 7 KW Vertical Wind Turbine is designed for automatic operation once properly installed

and connected. It begins rotating at wind speeds as low as 5 m/s and generates power from 4 m/s, making it highly efficient in varying wind conditions.

5.1. Power Generation

The vertical axis design allows the turbine to capture wind from any direction, optimizing power generation. The integrated charge controller ensures stable power output and protects your battery bank or grid connection from overcharging.

5.2. Monitoring and Control

The Atlas-X features connectivity for monitoring and control, allowing users to manage settings such as voltage limits via a dedicated application. This provides real-time insights into the turbine's performance.



Image: A visual representation of the TESUP mobile application interface, demonstrating how users can monitor and control the Atlas-X Wind Turbine, including setting voltage values.

5.3. Product in Action

Observe the TESUP Atlas-X 7 KW Vertical Wind Turbine in operation:

Video: A short clip demonstrating the TESUP Atlas-X 7 KW Vertical Wind Turbine in motion, showcasing its rotation and design.

6. MAINTENANCE

The TESUP Atlas-X wind turbine is designed for high durability and minimal maintenance. A protective wax film is applied to the turbine to guard against weather damage.

6.1. Routine Checks

- Periodically inspect the turbine for any visible damage, loose fasteners, or unusual noises during operation.
- Ensure the mounting structure remains stable and free from corrosion.
- Check electrical connections for corrosion or wear.

6.2. Cleaning

Clean the exterior of the turbine as needed to remove dirt, dust, or debris that may accumulate. Use a soft cloth and mild detergent if necessary. Avoid abrasive cleaners or high-pressure washing.

6.3. Protection Cover

A protection cover is included to safeguard the turbine when not in use or during extreme weather conditions, extending its lifespan.



Image: The TESUP Atlas-X Wind Turbine shown alongside its yellow protection cover, emphasizing the inclusion of this accessory for enhanced durability.

For comprehensive maintenance guidelines, refer to the official PDF User Manual.

7. TROUBLESHOOTING

If you encounter issues with your TESUP Atlas-X wind turbine, consider the following basic troubleshooting steps:

- **No Power Output:** Check all electrical connections from the turbine to the charge controller and inverter. Ensure there is sufficient wind speed for operation (minimum 4 m/s for generation).
- **Unusual Noises/Vibrations:** Inspect the blades and shaft for any obstructions or damage. Verify that all mounting bolts are securely tightened. The re-engineered design minimizes vibration and noise, so any significant change should be investigated.
- **Turbine Not Rotating:** Confirm that wind speeds meet the minimum requirement (5 m/s for rotation). Check for any physical obstructions preventing rotation.

For more detailed troubleshooting guides and technical support, please consult the official PDF User Manual or contact TESUP customer service.

8. SPECIFICATIONS

Attribute	Value
Model Number	ATLASX7 + CC
Manufacturer	TESUP
Power Generation Capacity	7 KW (Max.)
Daily Energy Output	168 kWh/Day (Max.)
Start-up Wind Speed	5 m/s
Power Generation Wind Speed	4 m/s
Recommended Wind Speed	> 10 m/s
Blade Options	3 or 12-blade
Dimensions (Approximate)	Height: 1180mm (3.87 ft), Diameter: 400mm (1.31 ft) for 12-blade option

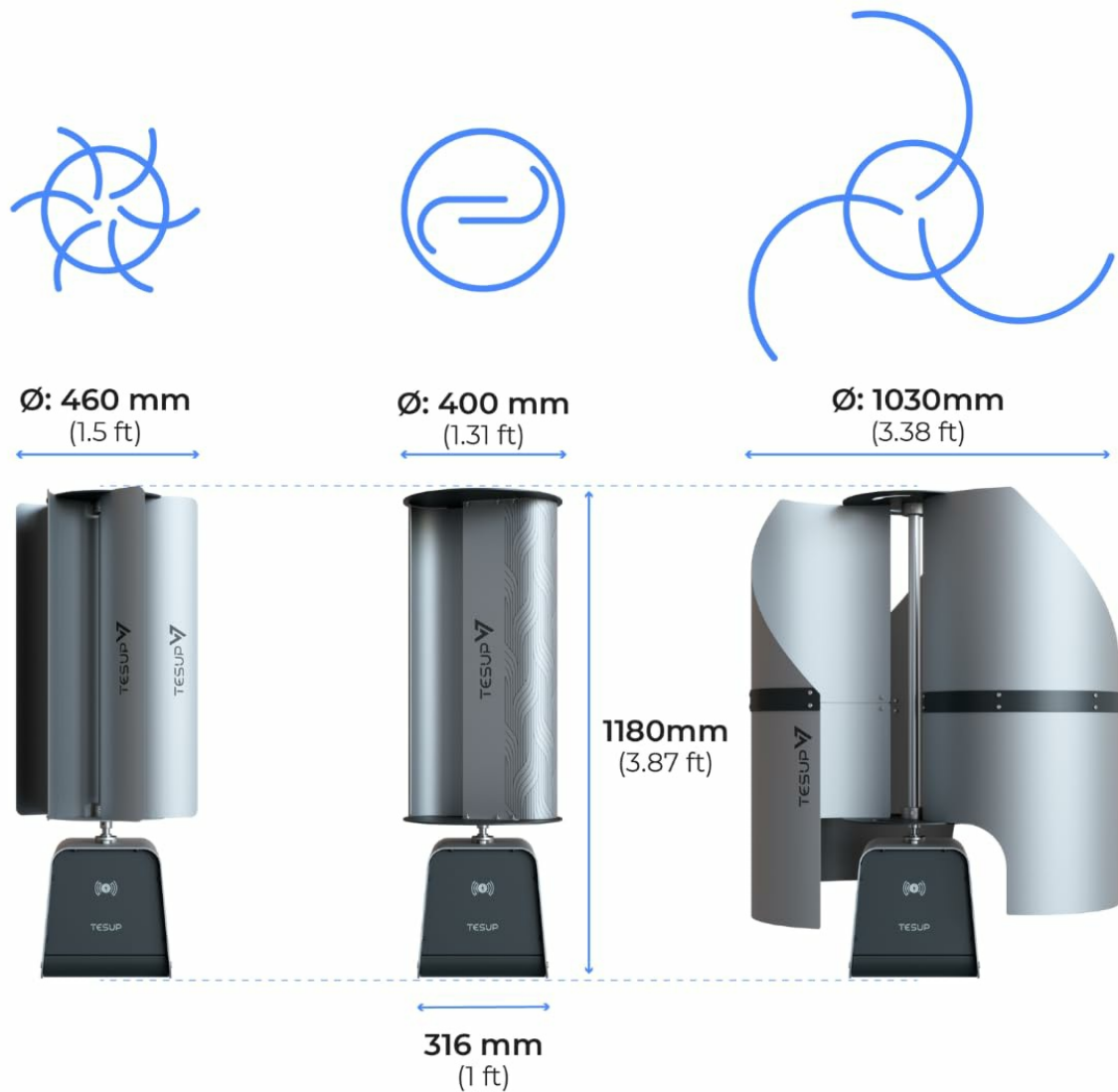


Image: A diagram illustrating the dimensions of different TESUP Atlas-X Wind Turbine configurations, including height and diameter measurements for various blade types.

9. WARRANTY AND SUPPORT

TESUP provides comprehensive support for its products. For detailed information regarding warranty terms, technical assistance, and customer service, please refer to the official PDF User Manual or visit the TESUP official website.

Official User Manual (PDF):

<https://manuals.plus/m/de5935f0e426eda84ca1381b88234832fc5876a2f2daeaf2eaa0138e251c21c2>

