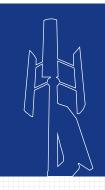


# Vertical Wind Turbine Brochure

Aeolos wind turbine SINCE 1986 Aeolos-V 5kW





# **Aeolos** –**V** windturbinestar.com

# Aeolos wind turbine SINCE 1986



### Specification

Generator Type: Three Phase

Permanent Magnet

 Rotor Height:
 5m (16. 4 ft)

 Rotor Width:
 4.5m (14. 8 ft)

 Turbine Weight:
 285kg (633.5 lbs)

Blades Material: Aluminum Alloy

Blade Quantity: 3 pcs

Working Temperature: -20 ℃ to 50 ℃

Design Lifetime: 20 years

### Performance

Rated Power: 5000 W Max Output Power: 6200 W

Cut In Wind Speed: 2.5m/s (5.6 mph)
Rated Wind Speed: 12m/s (26.8 mph)
Survival Wind Speed: 55m/s (122.65 mph)

Generator Efficiency: 96%

Noise Level: < 45 dB(A) Warranty: 5 year

### Safety

Blades RPM Limitation: 100 RPM
PWM Dump Load: 7.5 kW Box
Mechanical Brake: Manual/Auto

### Optional

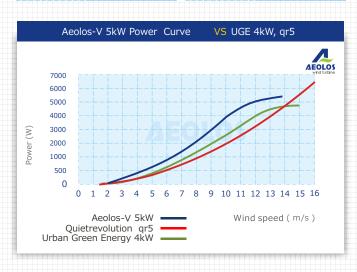
Remote Monitoring System (Internet/Wireless)
Auto Hydraulic Brake System (Unattended Site)

Off Grid: 48 V or 96 V

Grid Tie: 300 V



Aeolos-V 5kW Wind Turbine Annual EnergyOutput			
Wind Speed(m/s)	Annual Energy Output (KWh)	Wind Speed(m/s)	Annual Energy Output (KWh)
3 m/s	1752 kWh	8 m/s	17520 kWh
4 m/s	3942 kWh	9 m/s	26280 kWh
5 m/s	5256 kWh	10 m/s	35040 kWh
6 m/s	7008 kWh	11 m/s	41172 kWh
7 m/s	10512 kWh	12 m/s	44676 kWh















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## Why Choose Aeolos V 5kW Wind Turbine?

### **Triple Safety Protection**

**Special Blade Design**: Aeolos blades use the special aerodynamic design which limits the max rotating speed to 200 rpm even the wind speed is 30m/s or 40m/s. It is more safe and reliable than traditional vertical axis wind turbine.

**PWM Dump Load**: Aeolos-V 5kW wind turbine has the 5kW dump load box with PWM loading function. This will consume the over power output and control the voltage in strong wind speed.

**Mechanical Brake**: The manual mechanical brake can stop the wind turbine for maintenance or typhoon coming. We have the auto hydraulic brake system for remote installation site without people checking.





### **High Efficiency**

**Low Cut-in Wind Speed**: Aeolos-V 5kW could start up with 1.5m/s wind speed and has the power output in 2.5m/s to inverter. This is more efficient than the vertical wind turbines with a 3.5m/s or even 4.5m/s cut in wind speed.

**More Annual Output:** According to the AWEA standard, Aeolos-V 5kW annual output is 6657 kWh at 5m/s wind speed. The annual output at 10m/s is 42924 kWh.

**MPPT Charger For Off Grid**: Aeolos-V 5kW use 48V MPPT charging controller to increase the charging efficiency to 94%. It can charge the battery bank when wind speed is above 3.0m/s.



5 YEAR WARRANTY









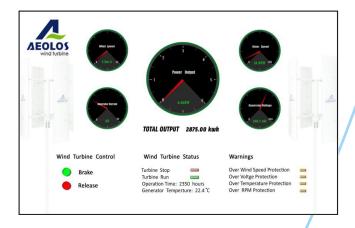




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### Intelligence Control

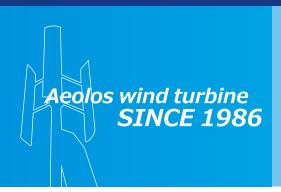
**Remote Monitoring System:** Customer can remote monitor the wind turbine operation, wind speed and power output in office, home, airport and anywhere through the internet.



**Auto Hydraulic Brake System**: It is suitable for the remote installation sites, like the island, telecommunication tower station which does not have people checking and monitoring. This system can auto stop the wind turbine in over voltage, over wind speed, generator over temperatureand all any other faults. It can auto release the wind turbine to run after the abnormal warnings.

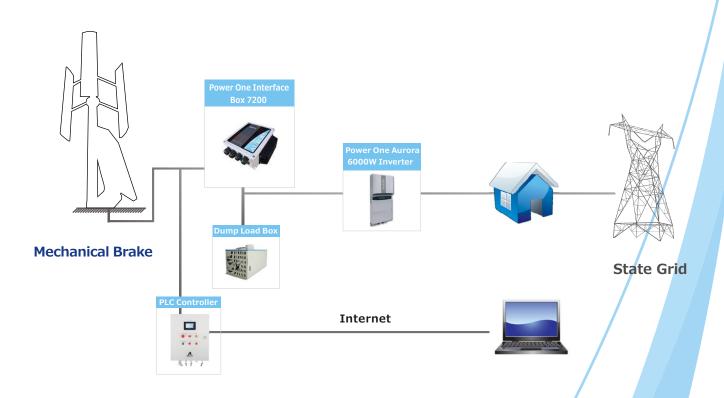






### **Wiring Diagram**

### Grid-on



### Grid-off

