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# Ampair<sup>®</sup> 600

for home, work and school

[www.ampair.com](http://www.ampair.com)

**ampair**<sup>®</sup>

# Ampair® 600 wind turbine.

## 24 V battery charging or 230 V grid connection

The Ampair 600 is the latest micro wind turbine from Ampair. Built on the same platform as the renowned Ampair 100 and the newer Ampair 300 it has a 1.7m diameter blade optimized for low and medium speed winds. It incorporates the PowerFurl™ system first seen in the Ampair 300 which slows the turbine down in high winds, reducing noise and mounting system loads. It is available in two versions depending on whether the need is for high capacity 24V battery charging or for 230V grid connection. It can be used on land or on larger vessels and, like all Ampair products, is built to full marine grade specifications.

### A. Ampair® 600W battery charge wind turbine.

The Ampair 600-24 is a small wind turbine with 1.7m diameter blades that can be used with 24V DC battery systems. This battery charge version includes the turbine 'head' plus the regulator. It also needs an appropriate 24V battery bank to store the energy and suitable 24V loads.

A06 1024 A600-24 system

### B. Ampair® 600W grid tie wind turbine

The Ampair 600-230 is a small wind turbine with 1.7m diameter blades that can be used to feed power back into the 230V mains electrical supply so that the premises need to purchase less power from the grid. This grid-tie system includes the turbine 'head' plus the necessary G83 inverter. A mounting system and installation services are also required, and monitoring systems are available for educational use.

A0620230 A600-230 system

### C. Ampair® mounting systems

These six mounting systems suit a variety of situations.

A06 M00 BWM: brick wall mount

A06 M10 SFM: steel frame mount

A06 M50 TUM: tilt up mast (8m)

A06 M70 GM: guyed mast (12m)

A06 M20 NPRM: non penetrating roof mount

A06 M60 TPM: telegraph pole mount

### D. Ampair® monitoring systems

The powerful combination of the Ampair 600 with an anemometer, a wind vane and a data logger brings renewables generation alive. Using a standard network port and internet connection, the logger uploads energy and weather data automatically to the Ampair Net website for sharing of by authorised users, such as teachers, pupils and facilities managers, of performance & CO2 graphs.

Price includes 3-year website hosting fee.

See [www.ampair.com/ampair/ampnet.asp](http://www.ampair.com/ampair/ampnet.asp) for an example.

ME AN10 Data logger set & Ampair Net

### E. Ampair® installation service

Specialist Ampair-approved contractors should be used. Prices for more complex situations require quotation after a survey.

A06 S00 Site survey

A06 S10 Basic install

A06 S40 Complex install

Clear Skies product WT5033

Clear Skies installer 2142847



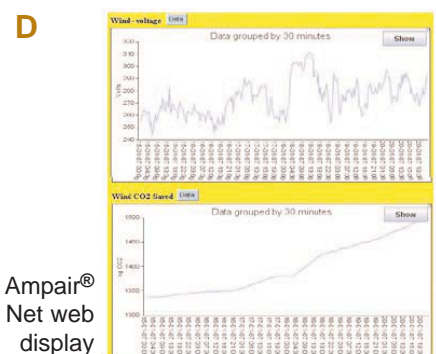
Ampair 600 on brick wall mount



Ampair 600 on telegraph pole mount



Ampair 600 on tilt up mast

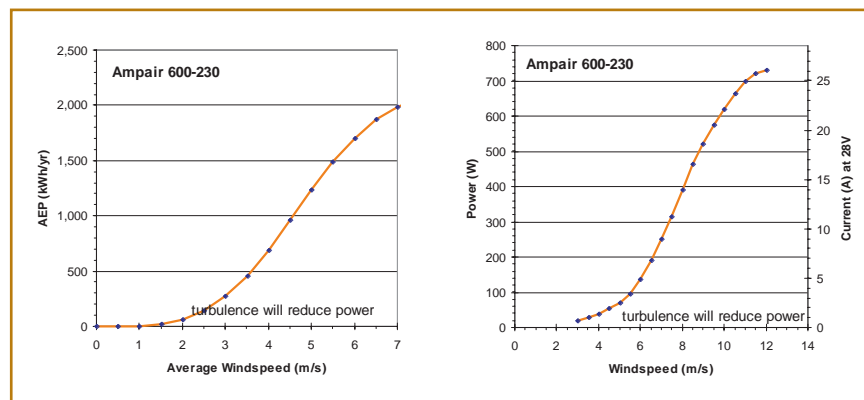
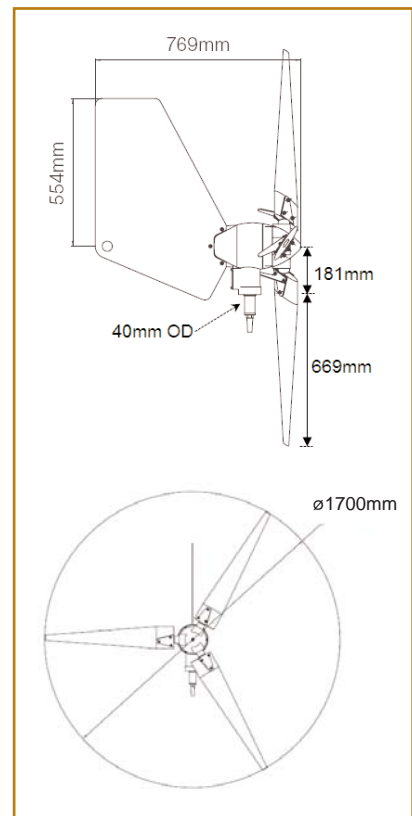
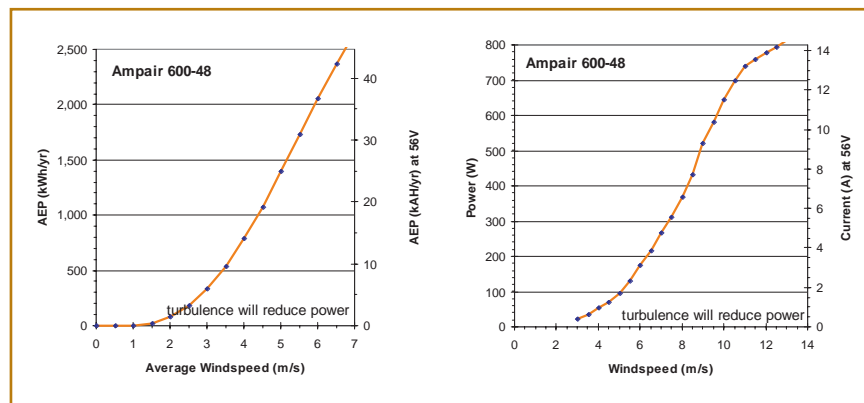
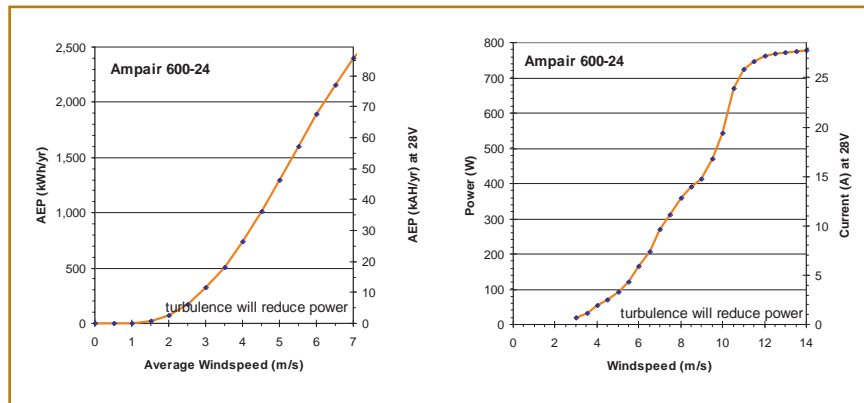


Ampair®  
Net web  
display

# Ampair® 600 wind turbine.

24 or 48 V battery charging  
230 V grid connection

	24 V DC battery charge	48 V DC battery charge	230 V AC grid connected
Reference power at 11.0m/s (24.6mph)	723 W (into battery)	741 W (into battery)	698 W (into grid)
Reference annual energy at 5.0 m/s	1300 kWh/yr; 48 kAh/yr	1394 kWh/yr; 25 kAh/yr	1232 kWh/yr (to grid)
Cut-in windspeed	3.0 m/s	3.0 m/s	3.0 m/s
Cut-out windspeed	n/a	n/a	n/a
Maximum power	1050 W	1140 W	730 W
Maximum voltage	24 V nominal	48 V nominal	230 V nominal
Maximum current	30 A	17 A	3.2 A
Power form	24 V DC	48 V DC	230 V AC single phase 50Hz
Power input	<0.5 W	<0.5 W	0.1 W sleep, <4 W standby
Rotor swept area		2.27m <sup>2</sup>	
Generator output		3-phase AC (to external rectifier)	
Turbine diameter		1.70 m	
Overspeed control		Blade pitch control and dump load	
Weight		16.0 kg (turbine head including blades & tail fin)	
Construction		powder coated die cast aluminium body; 3 blades of GRP construction	
Generator		direct drive NeFeBr permanent magnet generator producing three phase	
Noise		Max 1-3 dBA above background	
Longevity		Expected 15 year operational life	

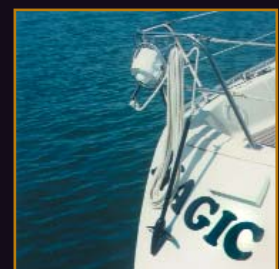


### Conformity:

Where relevant the Ampair®, Aquair®, and UW systems conform to the following standards:

- G83/1: Recommendations for the connection of small-scale embedded generators (up to 16A per phase) in parallel with public low-voltage distribution networks.
- BS EN 61400 part 2 (1996): Wind turbine generator systems: Design requirements of small wind systems
- BS EN IEC 60335-1 (1994): Safety Of Household Electrical Appliances
- LV Directive 73/23/EC: EU Low Voltage Directive
- WEEE Directive 2002/96/EC: EU Waste Electrical & Electronic Equipment Directive
- RoHS Directive 2002/95/EC: EU Restriction of Hazardous Substances Directive
- EMC Directive 89/336/EC: EU Electromagnetic Compatibility Directive.

1. Power Curves and Annual Energy: The performance of wind turbine systems is impossible to predict with any certainty due to the variability in the wind from location to location and from year to year. These estimates are based upon the best available information but are given as guidance only and should not be considered as a guarantee. For a greater level of certainty we would recommend on-site wind speed monitoring for at least a year.
2. Variation: All values are nominal as there will be some variation in manufactured product.
3. Lifetime: Expected safe operational life excluding consumable items. Actual life will depend on local conditions. Note warranty period is different.
4. Terms and conditions apply
5. Specifications subject to change.



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