

FUTUREENERGY

AirForce[®] 1

1kW MICRO WIND TURBINE SYSTEM

24V & 48V battery charging versions with

AirForce[®] CONTROL

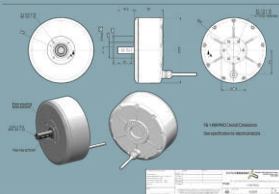
automatic stop - remote control - performance monitoring

**Complete unit including Permanent Magnet Generator
designed and manufactured in the UK by FUTUREENERGY**

 Designed and
manufactured by
FUTUREENERGY in the UK



Permanent Magnet
Generator optimised for
wind applications



Worry free operation with
AirForce[®] control
protection



Fit for purpose
Highly dependable
Minimal maintenance
Long life in service
Quality and performance



*Installation examples: off-grid
locations – telecoms power – hybrid
solutions – remote communities –
deployed personnel support – oil or
gas rigs – humanitarian aid –
deployed untended equipment –
agricultural buildings – boats and
barges - pumping solutions - battery
charging*



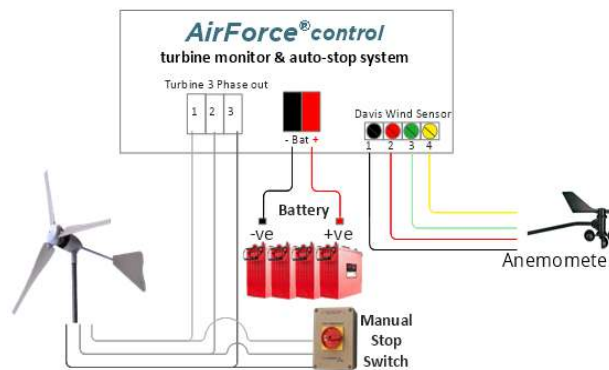
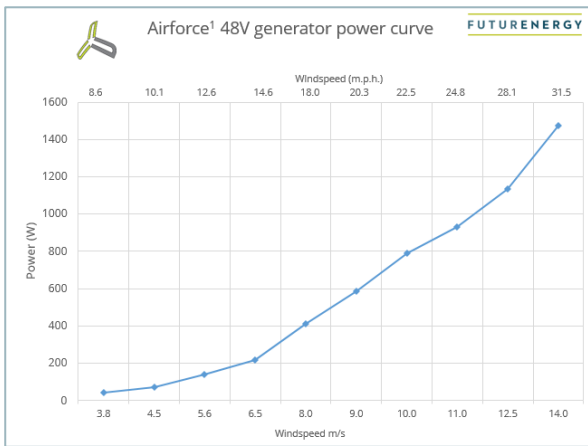
Key features:

- ▲ **“Breakthrough in simplicity and usability”**
- ▲ **Auto-stop** based range of conditions including turbine rpm, wind speed or battery charge state
- ▲ Dump-load, charge controllers and rectifier **not required**
- ▲ Reduce installed components and prolong battery life
- ▲ Simple electrical installation
- ▲ High-performance **own design** Permanent Magnet Generator (PMG)
- ▲ Web based portal for **remote monitoring and control**
- ▲ Tough glass-reinforced-nylon turbine blades
- ▲ All bearings sealed for life
- ▲ Corrosion resistant materials throughout prolongs life-in-service
- ▲ 60 Amp rated slip-ring preventing cable twist
- ▲ Compatible with solar-wind hybrid installation
- ▲ Rugged, simple design, minimal maintenance
- ▲ System supply includes anemometer

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AirForce[®] 1 Technical Specifications

Nominal power output:	All versions 1000W
Start-up wind speed:	~3.5 m/s
Rated wind speed:	12.5m/s
Survival wind speed:	52m/s
Total weight:	19kg
Number of blades:	3 (5 blade set option for lower wind areas)
Rotor diameter:	1.8m
Rotor speed (RPM):	200 - 800
Generator type:	3-Phase AC Permanent Magnet
Output type:	3-Phase AC (rectified DC available on request)
Turbine mounting:	50mm tube to accept 48.3mm standard scaffold tube
Noise:	L _{Aeq} 35dB @ 5m/s wind speed measured behind rotor L _{Aeq} 54dB @ 7m/s wind speed measured behind rotor



3-phase turbine battery charging example (48V)

Web based monitoring portal:

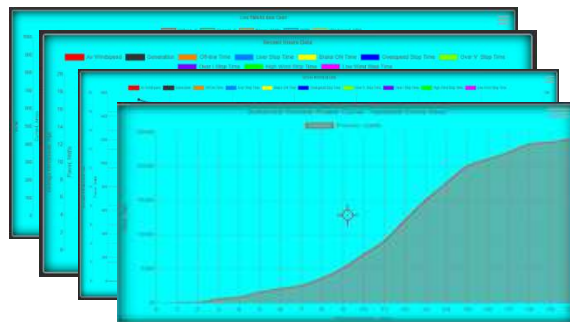


AirForce[®] control web

- ▶ Web-based portal provides remote control & configuration
- ▶ Display live output and trending of historical data
- ▶ Start and stop turbine on command
- ▶ User configurable to match local conditions

Accessories available:

- ▶ Guyed tower kit



Trending and analysis

For more information, contact:
FUTUREENERGY Ltd
 Ettington Park Business Centre
 Stratford Upon Avon
 Warwickshire
 CV37 8BT
 info@futureenergy.co.uk
 +44 (0)1789 450280
 www.futureenergy.co.uk

FUTUREENERGY declares that this product complies with:
 LV Directive 73 23 EEC
 EMC Directive 89 336 EEC
 Machinery Directive 98/37/EC
 Fully ROHS compliant

