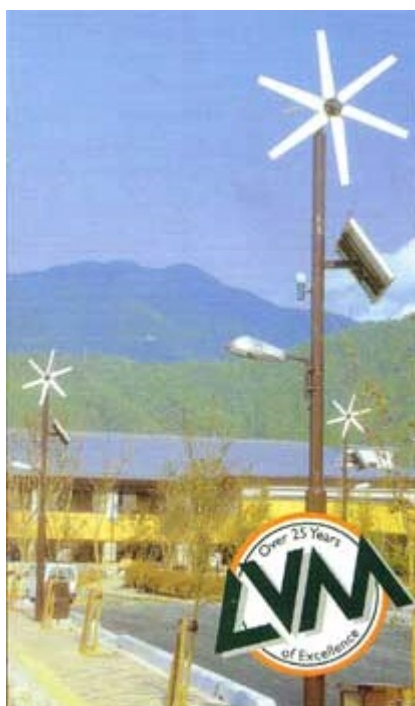




AEROGEN

FURLED INLAND

WIND GENERATORS



Aerogen wind generators are ideal for charging lead acid and gel batteries when mains power is either not available or not suitable.

Once the wind generator is purchased, the power produced is free and can be used in wide variety of applications.

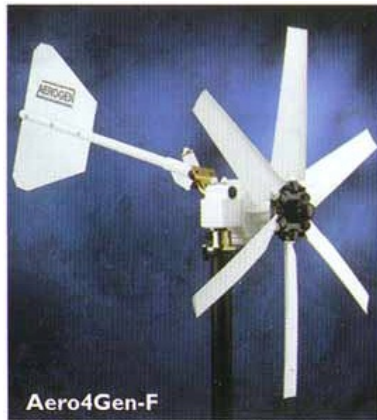
The **Aerogens** detailed in this brochure are 'Third Generation'. They feature the latest technology and benefit from the expertise and experience gained since 1982, manufacturing wind generators and supplying them world wide for land and sea use.

Aerogen inland furling wind generators are designed for unattended applications. They will produce approximately the same output as their marine equivalent, but are automatically furled at wind speeds above 40 knots by the special pivoting tail assembly, which turns the generator side ways to the wind thus limiting its output and protecting the generator.

There are two models available: Aero4gen-F and Aero6gen-F

They incorporate many of the same components as the marine models and operate continuously and safely in storm force winds. The furling generators have been used successfully throughout the world in some of the most remote and extreme weather locations, often used in combination with solar panels. Some typical applications include: Street lighting, Remote telemetry, Data loggers and Electric fencing.

They ARE NOT suitable for use on yachts.



In choosing your **Aerogen**. The key parameters are Aerogen outputs, power requirements and wind speeds. Aerogen outputs are tabulated in table 2. Most equipment will detail power draw and therefore estimates can be made of power usage. In most parts of the world wind speeds average 8 -20 knots. Around the averages the wind is volatile and gales and calm periods occur with varying frequencies depending on the season. Data is available from meteorological authorities world wide.

Application	Power Use Weekly Amp Hours 12 volt dc	Aerogen Choice	Power Generated Amp Hours Weekly 12 volt dc @ 12 Knots
Telemetry/Remote Extreme Conditions	100-300 300-650	Aero4gen-F Aero6gen-F	300* 67C
Summer/Remote Houses Alternative Lifestyle Possible Extreme Conditions	300-650	Aero6gen-F	670*

Table 1 * In winter in these locations wind speeds can average over 25 knots with frequent gales.

Powerful Performance

The optimum wind speed is between 5 and 20 knots. Aerogens are designed to operate efficiently in this range, starting to charge at 5 knots. Equally they take advantage of higher wind speeds to produce higher outputs continuously and safely.

Quiet: Safe: Low Speed Efficient Propellers

LVM computer designed aerofoil section blades are used to maximise the generators output at comparatively low wind speeds therefore ensuring enhanced safety, comfort and bearing wear.

High Efficiency Brushless Alternators

- High efficiency hand wound 3 phase brushless alternators.
- Neodymium Iron Boron permanent magnet rotor, sleeved and epoxy potted.

Compact, Light, Robust and Maintenance Free

Aerogens are lighter and smaller than some units with similar or even lower performances.

- They are sturdy and robust.
- Incorporate heavy duty bearings, slip-rings and brushes.
- Corrosion resistant marinated materials are used throughout.

All **Aerogens** provide years of maintenance free use, and are available in both 12 and 24 volt.

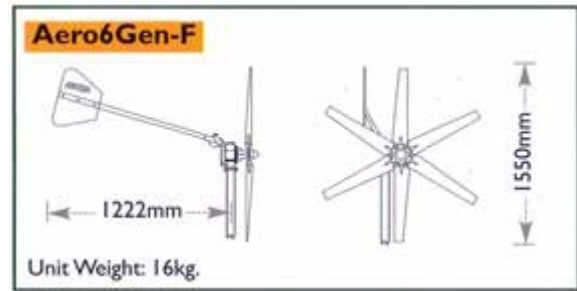
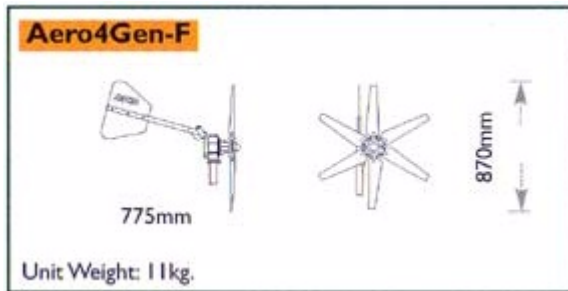
Table 2 : Amps Output @ 12-14v Against Wind Speed (knots)

Watts	Amps	Aero4gen-F	Aero6gen-F	Wind Speed (Knots)
360	30	-	-	
240	20	-	40	
180	15	-	25	
120	10	40	20	
96	8	33	17	
72	6	23	15	
60	5	20	14	
48	4	18	12	
36	3	15	11	
24	2	13	10	
12	1	10	7.5	
6	0.5	8	6.5	

1 knot = 0.51 m/s

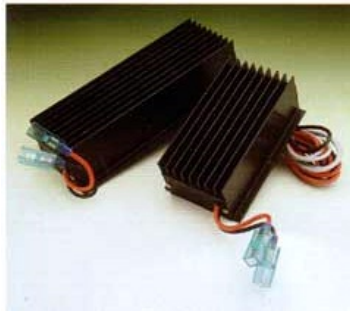
1 m/s = 1.93 knots

AEROGEN SPECIFICATIONS



Battery Charging and Protection- Voltage Regulators (TB Units)

Voltage regulators and diode units are available for single, twin and triple independent battery protection. When the batteries reach full charge the power produced by the generator is diverted to a wire wound resistor and dissipated as heat thus ensuring the generator is "on load" at all times.



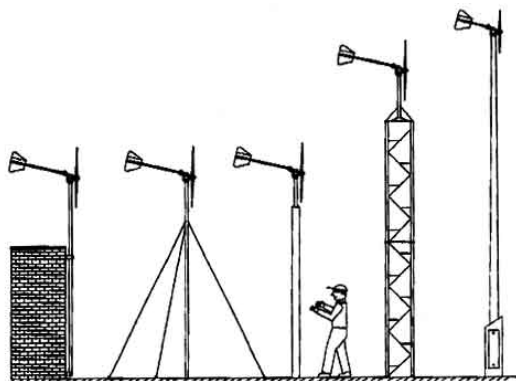
Twin Battery Regulators (TB Units) are unaffected by other charging sources i.e. engine alternators and shore power therefore it is recommended that they are used in marine applications and makes them ideal for separate charging of engine and domestic batteries.

They incorporate:

- Voltage monitoring/PMW circuit.
- Power Mosfet.
- Schottky Diodes.

To regulate three independent batteries add a diode unit (DU Unit).
Typical wiring diagrams can be found on our web site.

Mounting your AeroGen F



The AeroGen F's are designed to be mounted on a wide variety of masts - from a simple modified scaffold pole, right through to a tall, heavy duty, lattice tower. The generators are supplied with a flange, designed to be welded to the top of a 2" (50.8mm) outer diameter steel pipe.