



## **AFPMG for Small Wind Turbines & Hydro Power**

AFPMG (Axial Flux Permanent Magnet Generator) is newly invented by Hiest Motor.

The simple-structured, scientific-designed generator can make the most of the wind power and efficiently generate electricity 24 hours a day without high wind speed. Moreover, its performance and quality has not only received recognition in many countries and regions, but also successfully taken a share in foreign markets, UE, US, SE Asia Market, for instance.

### **Main Feature**

- Iron coreless, 0.5 N.M starting torque and 1.5m/s wind speed.
- Brushless, non-magnetic damping, permanent magnetic technology, high efficiency up to 90%
- Stability, this type of motor can absorb the wind power 360 degrees which make the most use of the wind power.

### **Main Applications**

- Small wind generators (SWT)
- Small electrical generators driven by gasoline or diesel engines.
- Electric vehicle drive machines, as motor and generator
- Hydro power

Application of AFPMG offers an alternative solution in the sphere of electrical generators or electrical machines in general. Their disc-shaped construction and advantageous electromechanical characteristics represent the main features in alternative electrical energy production and in high efficient electric drive systems.

## Options

- Rated power: 0.1KW-15KW
- Rated speed: 100RPM -1200RPM
- Rated voltage: 14VDC-400VAC
- Generator outer diameter: 110mm-770mm

We can customize products according to customer requirements.  
We can do OEM (Original equipment manufacturer) for customers.

Warranty: 1 year

## Operating Range of Permanent Magnet Generator (PMG)

- Construction and technical performance make Permanent Magnet Generator (PMG) a perfect choice for small wind turbine (SWT) applications.
- Operating range of PMG covers the needs of small wind turbine (SWT). For 1-5KW wind turbines, can use a single rotor-single stator of AFPMG, for 5KW-50KW turbines, can use AFPMG with a construction of single rotor-double stators.

## Checklist Category

- Dimensions and tolerances
- Output power, voltage RPM. Input power and input torque
- Insulation resistance examination.
- Starting torque
- Output wire (Red, white, black, green/earth)

## Operating Instructions

- Working Condition: under an altitude of 1,000 meters, -30 ° C to +50 ° C
- Before installation, gently turning the shaft or housing to confirm rotation flexibility, no abnormal sound.
- AFPMG output is three-phase, three-wire output, before installation, use 500M $\Omega$  Megger to check the insulation resistance between the output wire and case, should not be less than 5M $\Omega$
- If AFPMG is inner rotor generator, in the installation process, should ensure that the locking screw in place, it is very important