



# AL13 POWER TOWER™

A cost-efficient, modular option for customers seeking clean and powerful energy, this aluminum model can be stacked vertically, up to 6 units high, maximizing its economic benefits. Due to the alternating angles of the stacks, the Power Tower picks up wind from every direction.

Stacks of 4 or 6 modules are standard, and a stack of 6 modules is recommended. The full stack of 6 comes with 5 Kw electronics for low wind areas, and a 10 Kw for higher wind areas.

\*Please note that projected data is based on research, field testing, and simulations.



**Model Number:** FT AL13 Power Tower

**Type:** Modular 2-Bladed Vertical Axis Wind Turbine

**IEC Turbine Class:** IEC61400 Class IV

**Rated Power:** 1 Kilowatt alone, 5 Kw for a full stack of 6.

**Expected Production:** Each level alone is  $\approx$ 350 watts at 12 m/s. When in a bouquet, add around 25% to the power output of each turbine multiplied by the number of turbines.

**Grid-Tied Output:** 230VAC/3PH/60Hz or 100VAC/3PH/50Hz

**Generator:** High Efficiency Permanent Magnet Generator. 3, 5 or 10 Kw generators are available depending the number of modules, geographic location and number of turbines in a bouquet.

**Bearings:** Included in generator and around shaft. (Require annual inspection)

**Stabilizer Pole:** Power Tower stacks require our stabilizer pole which is attached to the turbine with an upper bearing. One stabilizer pole can be used for 2 stacks.

**Blade material:** Anodized Aluminum

**Base Material:** A36 Steel

**Turbine Diameter:** 1.7 m (5.577 ft)

**Blade Height:** 1 m (3.281 ft)

**Total Modular Height:** For 4 module unit:  $\approx$ 4.953 m (16.25 ft) For 6 module unit:  $\approx$  6.953 m (22.8 ft)

**Total Weight:** For 4 module unit:  $\approx$ 431 kg (950lbs) For 6 module unit:  $\approx$ 585 kg (1,290 lbs)

**Cut-In Wind Speed:** 0.7 m/s (1.57 mph)

**Cut-Out Wind Speed:** Inverter or charge controller and electrical brake system will control high rotational speeds. Will also include a mechanical and manual brake as required.

**Max Survival Wind Speed:** 54 m/s (120.8 mph)

**Operating Temperature Range:** -15°C to 40°C (5°F TO 104°F)

**Design Life:** 20 Years (Must be checked annually)

**Warranty Period:** 5 Years



Scan this QR Code to visit our online page detailing more about the AL13 Power Tower.

2601 SE Loop 289 Lubbock, TX 79404  
support.us@flowerturbines.com | FlowerTurbines.com  
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