

# AL13 POWER TOWER™

A cost-efficient, modular option for customers seeking clean and cost-effective energy, this aluminum model can be stacked vertically. Due to the alternating angles of the stacks, the Power Tower picks up wind from every direction. The blades ship flat and can be assembled on site. Stacks of 2, 4 or 6 modules are standard, and a stack of 8 modules is recommended for maximum economy of scale. The stacks of 6 or 8 come with 5 Kw electronics for low wind areas, and 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, increments of 1-meter height each, ideally used in groups of 2, 4, 6, or 8 modules for ideal balance.

**IEC Turbine Class:** IEC61400 Class IV

**Rated Power:** 1 Kilowatt with 2 modules, 5 Kw for a full stack of 8.

**Expected Production:** Each level alone is ≈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:** 120V/240V

**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 plus a second set on the shaft (Requires annual inspection).

**Stabilizer Pole:** Power Tower stacks of 4 modules or more 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

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

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

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

**Total Weight:** For 2 module unit: ≈336kg (740.5lb) | For 4 module unit: ≈Weight: 462kg (1018.5lb) | For 6 module unit: ≈557kg (1228lb) | For 8 module unit: ≈654kg (1441.5lb) (Generator weight is separate)

**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. Includes mechanical brake.

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

**Operating Temperature Range:** -15°C to 50°C (5°F TO 122°F)

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

**Warranty Period:** 5 Years for components made by Flower Turbines; other components are according to the warranty that comes from that manufacturer.



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

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