TPW Series

DATA SHEET

BreezePro® Horizontal Wind Turbine

Features

- **Integrated Controller with Dump Load to Optimize Performance**
- **Wind Turbine startup wind speed of 2.1m/s (4.7mph)**
- **Smooth and quiet running maintenance free sealed turbine**
- **Sealed die cast aluminum housing for protection from harsh environments**
- **Very light and compact**
- **Easy Installation and Maintenance Free Operation**
- **Electronic over-speed protection**
- **Charges batteries from flat**

TPW-400DT
400W Wind Turbine

Applications

- **Battery Charging Applications**
- **Wireless Base Stations**
- **Street Lamps and Signs**
- **Boats, RV's and static caravans**
- **Surveillance Cameras**
- **Electric Gate Openers, Electric Fences**
- **Remote Cabins and buildings**
- **Security Systems**

Description

The BreezePro® Wind Turbines from Tycon Power Systems are lightweight at less than 10.5kg and are designed for ease of installation and long service life. The generator is a very low cogging force design for better performance in light winds and is packaged in a fully sealed die cast aluminum enclosure. There are no brushes to wear out or cause electrical noise and the bearings are sealed so the system is maintenance free. The blades are glass reinforced nylon for high strength, UV resistance and fatigue resistance. The turbines are 12V/24V auto voltage select. The unit includes an embedded smart battery charge controller and dump load resistor. The dump load helps prevent premature braking and increases the total power delivered to the batteries. It also helps protect the turbine in high winds. The entire blade assembly can be removed easily as 1 piece for hurricane protection. This also makes it easier and safer to install.

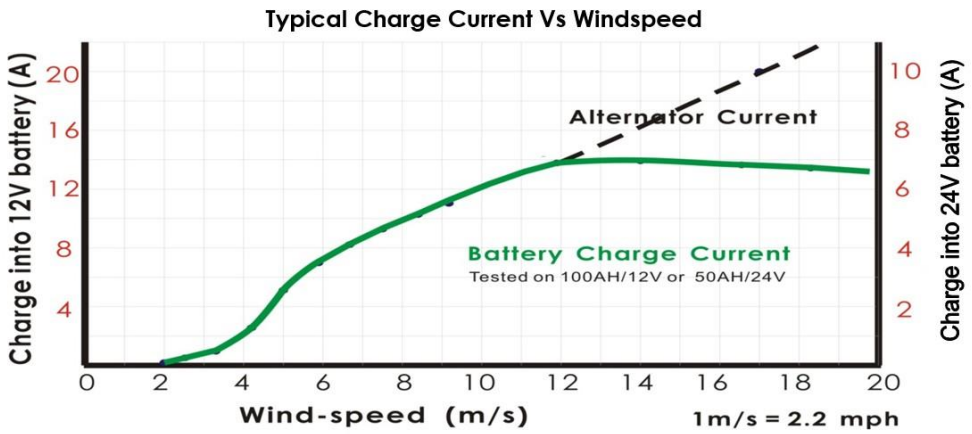
The permanent magnets used are Neodymium Iron Boron (NdFeB) for higher power output.

The mounting is to the inside of the top of a 41mm ID standard pole (1.5" Sched 40). The hardware used is stainless steel for corrosion protection. The units can be used in arrays of multiple turbines to increase available power.

Specifications

	TPW-400DT-12/24
Startup Wind Speed	*2.1m/s (4.5mph)*
Power Rating	*300W @ 12.5m/s*
Max Power Output	*400W*
Battery Charge Voltage Range	*12V = 14.7 to 15.2V ; 24V = 29.4 to 30.4V*
Turbine Voltage Output	*12V or 24V Auto Select Battery Voltage*
Rotor Diameter	*1.12m (3.7ft)*
Blade Material	*Glass reinforced nylon*
Body	*Die Cast Aluminum*
Weatherproofing	*IP65 and Salt Mist Corrosion Protected*
Over-speed Protection	*Electronic*
Survival Wind Speed	*50m/s (112mph)*
Wind Load	*Wind Surface Area 375 sq in, 30lbs @ 60MPH, 67lbs @ 90MPH*
Certifications	*CE , RoHS*
Mounting Pole Required	41mm (1.614") ID (Example 1.5" Sched 40)
Operating Temperature	-40C to +60C (-40F to + 140F)
Weight	10.5kg (23lb)
Warranty	2 years

Wind Speed	*RPM*	*Amps*
MPH	*r/Min*	*12V/24V*
4.5	120	0.04 / 0.01
5.6	150	0.23 / 0.08
7.4	200	0.67 / 0.32
9.4	250	2.7 / 1.0
11.2	300	5.2 / 2.5
13.2	350	6.9 / 3.3
15	400	8.7 / 4.3
16.8	450	9.3 / 5.5
18.8	500	10 / 6.0
20.6	550	11 / 6.7



System Ordering:

TPW-400DT-12/24 400W 12V/24V BreezePro® Horizontal Wind Turbine with embedded controller and dump load

For further information contact:

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