

WT3 Micro Aeolic Wind Turbine



- Gearless and high efficiency HAWT
- EM braking with exclusive "Furling Protection" against strong wind
- Original blade shape made with carbon fiber
- Easy to install
- Low noise blade tip profile

General Description

This Carlo Gavazzi Micro Wind Mill has been designed using the state of the art of technology for Horizontal Axis Wind Turbine (HAWT). The turbine delivers high efficiency energy with a low level of audible noise, low weight and easy to install. It has been designed with an exclusive blade profile which, together with a brand new generation of lightweight and resistant materials, provides high performance and low

inertia. In the best conditions, this micro turbine can have a total efficiency up to 39%. When the wind speed is more than 13.5m/s the safety "furling protection" tilts the tail, orientating the turbine out of the main wind direction, and forcing the propeller to slow down. In such condition the maximum power is also self limited to 3.0kW.

Ordering key

WT 3

Model _____
 Maximum output power _____
 Options _____

Approvals



Generator Data

Type	18 poles Permanent Magnet Generator
Rated Output Power	2.35kW @ 12m/s
Maximum Output Power	3.0kWp @ 13.5m/s
Minimum Voltage	50Vrms @ 145rpm
Maximum Voltage	240Vrms @ 780rpm
Insulation Class	F

Turbine Data

Type	HAWT Three Blades Propeller Turbine
Speed Range	0 rpm to 800rpm
Operating Speed Rotation	145rpm to 780rpm
Rated Speed	690rpm @ 12m/s
Start-up Wind Speed	~2.5m/s
Cut-in Wind Speed	3m/s
"Furl Protection" Wind Speed	Start @ 13.5m/s
Survival Wind Speed	≥50m/s
Max. Efficiency	39%

Mechanical Data

Propeller diameter	2.49m
Sweep Area	4.87m ²
Overall Weight	52.4kg
Blades Weight	9.3kg
Tail Weight	9.1kg
Body+Generator Weight	34kg
Propeller Blades	3
Propeller Blades Material	Composite carbon fiber
Stand Material	Zinc-coated steel
Nose Cone Material	Nylon / ABS
Turbine Tail Material	Zinc-coated steel
Rotor Blades protection	Anti-UV, chemical resistant, temperature resistant
Colour	RAL9010

Environmental Data

Ambient Temperature	-20 ~ +50°C
Noise Level	<60dB (Acc. to IEC61400-11)
Humidity	0...95%RH
Corrosion Protection	Protective paint
Protection Degree	IP54

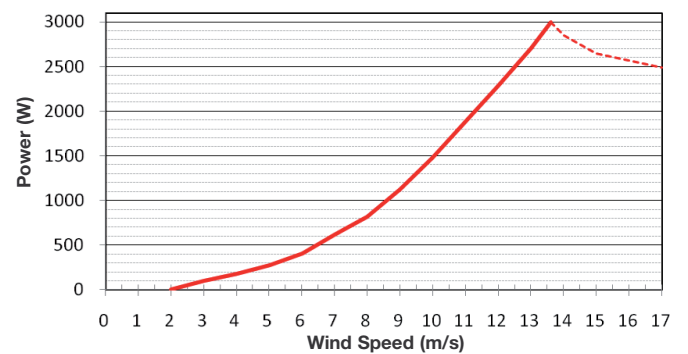
Standard Norms and Certifications

According to	IEC61400-2
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Turbine Braking Control

Automatic System	<ol style="list-style-type: none"> 1) Furl protection begins @ 13.5m/s wind speed 2) Over speed electromagnetic brake using WT13 inverter and WTB3 braking box
Manual	Short circuit braking and resistor braking using WTB3 braking box

Power Curve



Dimensions (cm)

