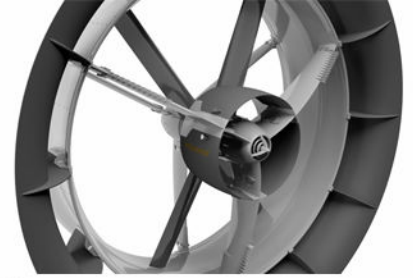


Vetar 10

ADVANCED HIGH ENERGY YIELD WIND TURBINE



Vetar 10™ is new, highly advanced, high energy yield, birds friendly, low noise and low vibration concept of HAWT.

New features which make Vetar 10 couple of times more productive than conventional HAWTs are:

1. Advanced aerodynamics with 1.5 times air acceleration capability.
2. Two highly efficient contra rotating rotors with efficiency up to 55.5% connected with two independent PM electro-generators.
3. Turbulence and thermal control system (TTCS) which can reduce turbulent losses up to 10%. TTCS consists of specially designed turbulence control ring, specially shaped and distributed electro-generator housing supporters and turbulent separation control canards. Thermal control segment is highly effective cooling system which include additional inner blades inside main rotors, as well additional rotors inside electro-generators housings for air circulation, pressurization and ejection of heated air at the back of second electro-generator housing for additional turbulence control.

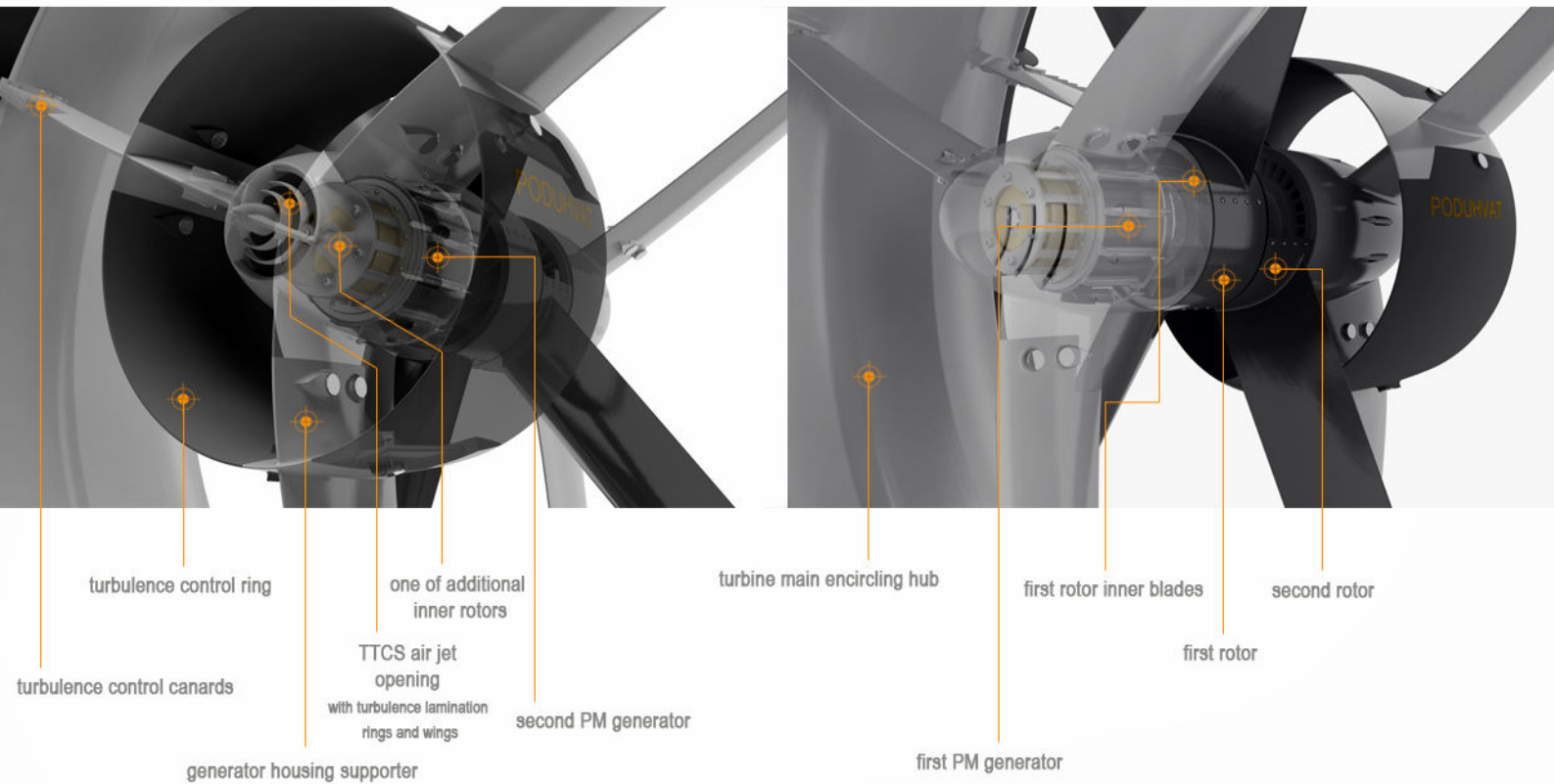


Vetar 10

ADVANCED HIGH ENERGY YIELD WIND TURBINE - Technical

Poduhvat DOO
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18103 Nish
Serbia

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Vetar 10	
Rated power	10 kW @ 14.8 m/s
Max. power	13 kW @ 16.5 m/s
Turbine design standard	AWEA, MCS, IEC - 61400-2, Wind class 1
Start-up wind velocity	1.5 m/s
Cut-in wind velocity	3 m/s
Cut-out wind velocity	50 m/s
Survival wind velocity	75 m/s
Rotor diameter	1.97 m
Highest diameter	2.86 m
Rated power rotation frequency	1370 (2 x 685) RPM
Max. power rotation frequency	1460 (2 x 730) RPM
Generators voltage	550 V AC @ 730 RPM
Generators type	V-GEN 6.5, PM, out-runner
Grid feeding	400 V, 50 Hz, 3 phase 3W or 4W + PE
Turbine controller	Custom made wind interface 15 kW
Yaw controller	Active
Rotor rotation controller	Active yaw
Breaking system	Resistors braking Electromagnetic brakes
Remote monitoring	Custom made interface monitoring system LAN, wireless/GPRS/3G
Interface	Graphic-Display
Designed life span	> 20 Years
Tower	Free standing
Turbine weight	375 kg
Acoustic emission	< 35 dB
Warranty	5 Years
Price	Call us

