UGE WindTurbines

UGE 750H

750 kW Direct-drive Wind Turbine

www.UrbanGreenEnergy.com | 917.512.9777

Quality

The UGE 750H is manufactured in ISO9001 and ISO14001 certified factories to assure both quality and sustainability. Quality of our products is considered in everything we do.

Our dedication to the wind energy industry ensures we always deliver high quality products and customer service.

Versatility

The UGE 750H is tailored to meet local conditions such as grid characteristics and wind conditions. Various tower heights and blade lengths are available; versatility that makes it adaptable to a wide variety of sites and Class I, II, or III winds. In addition, custom hub heights are available for your particular site.

Cooling and heating systems mean that weather is never a concern. In fact, the UGE 750H can withstand temperatures as low as -40°C and as high as 55°C.

Shortest Delivery Times

Our business model is centered around **"Availability"** - at all times we strive to have a solution available for all of our customers. Our goal is to have the shortest delivery times in the industry, and our skilled manufacturers work hard to make this a reality. In this industry, if your time frame is short, trust UGE to deliver.

Low Prices

Not only do our customers receive their orders in the shortest possible time, they also receive them at the lowest possible price. Within the wind energy industry, our prices are consistently amongst the most competitive.

Advanced Technology

The UGE 750H utilizes the most advanced technologies to provide excellent performance. The direct-drive design means lower maintenance costs and higher efficiency, resulting in increased average energy yield. Individual pitch control ensures that the wind turbine will protect itself in severe weather.

Installation

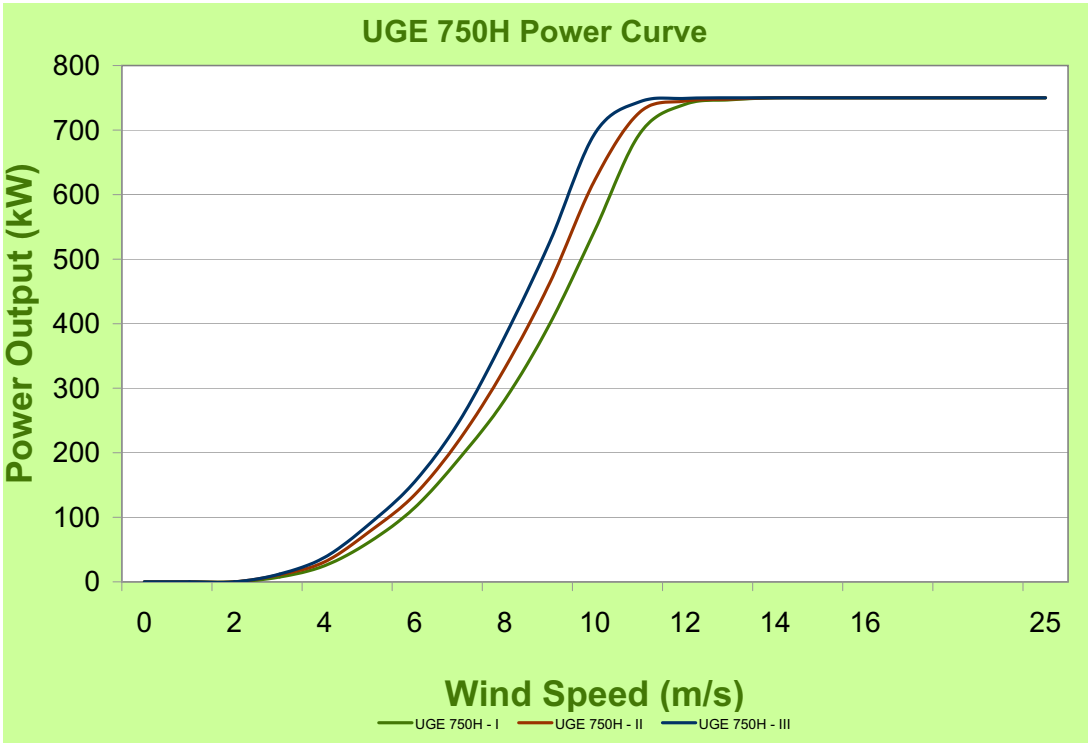
Industry standard components make the UGE easy to install. UGE has partnered with an international wind turbine installation company that takes pride in offering competitively priced, high quality, installation capabilities. Together we have the skills to provide any level of installation as well as ongoing operation and maintenance if required.

Functionality and Maintenance

The UGE 750H is easy to service and maintain and has a 20 year expected life. The on-board crane makes maintenance a breeze.

Noise Level

The UGE 750H is one of the quietest wind turbines in its class at just 100dB(A) at a wind speed of 8m/s as measured at the base of the tower. The generator has Class F insulation to ensure noise is not an issue. The blades are engineered to minimize noise.



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Specifications

1	Spinner	11	Yaw Brakes
2	Nacelle Cover	12	Rotor Lock
3	Blade	13	Lightning Arrester
4	Rotor Hub	14	Wind Vane
5	Main Shaft	15	Anemometer
6	Machine Frame	16	Hydraulic Unit
7	PM Generator	17	Controller
8	Torque Arm Damper	18	Heat Exchanger
9	Rotor Brakes	19	Tower
10	Yaw Drive		

Performance (Class I / II / III where applicable)
Rated Power: 750 kW
Cut-in Speed: 3 m/s
Rated Speed: 12.5 / 11.5 / 11.5 m/s
Top Speed: 25 m/s
Tip Speed: 65.4 / 70.7 / 74.6 m/s
Rotational Speed: 9-28 RPM
Swept Area: 1,964 / 2,290 / 2,552 m^2
Wind Class: IEC IA / IIA / IIIA
Sound level: 100dB(A) at 8 m/s wind speed

Measurements
Rotor Diameter: 50/54/57 meters
Number of Blades: 3
Hub Height: 50, 60, 68 meters (standard)
Blade Composition: Fiberglass/Epoxy
Lightning Protection: Included in blade design

Drive Train
Main Bearing:
Direct-drive design with no gearbox
Generator: Synchronous, permanent magnet

Generator
Type: Synchronous, permanent magnet
Noise Reduction: Class F insulation
Reliability: IP54
Cooling: Liquid cooled
Rated Power: 807 kW
Rated Voltage: 780V

Weather Conditions
Operating: -30 to 40°C
Stand-still: -40 to 55°C
Built in lightning protection

Pitch System
Type: Independent blade pitch per rotor blade with emergency power supply
Drive: DC electro servo-drive
Failsafe Brake: Battery back-up

Controller
Processor: Programmable Logic Controller
Remote Control: Internet
User Interface: PMU
Communication: Profibus - DP, CAN BUS
SCADA: Web-based (ISDN compatible)

Yaw System
Type: Ball bearing
Drive: 3 x Asynchronous motor
Braking: Active hydraulic disc brakes

Power Converter
Type:AC/DC/AC converter
Voltage: 690V / PWM Vector Control
Frequency: 50/60Hz

Weight
Nacelle: 43 mt
Tower (60m): 75 mt