



**UGE 750H**

**750 kW**  
**Direct-drive Wind**  
**Turbine**



### 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.

### 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  $-40^{\circ}\text{C}$  and as high as  $55^{\circ}\text{C}$ .



## 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.

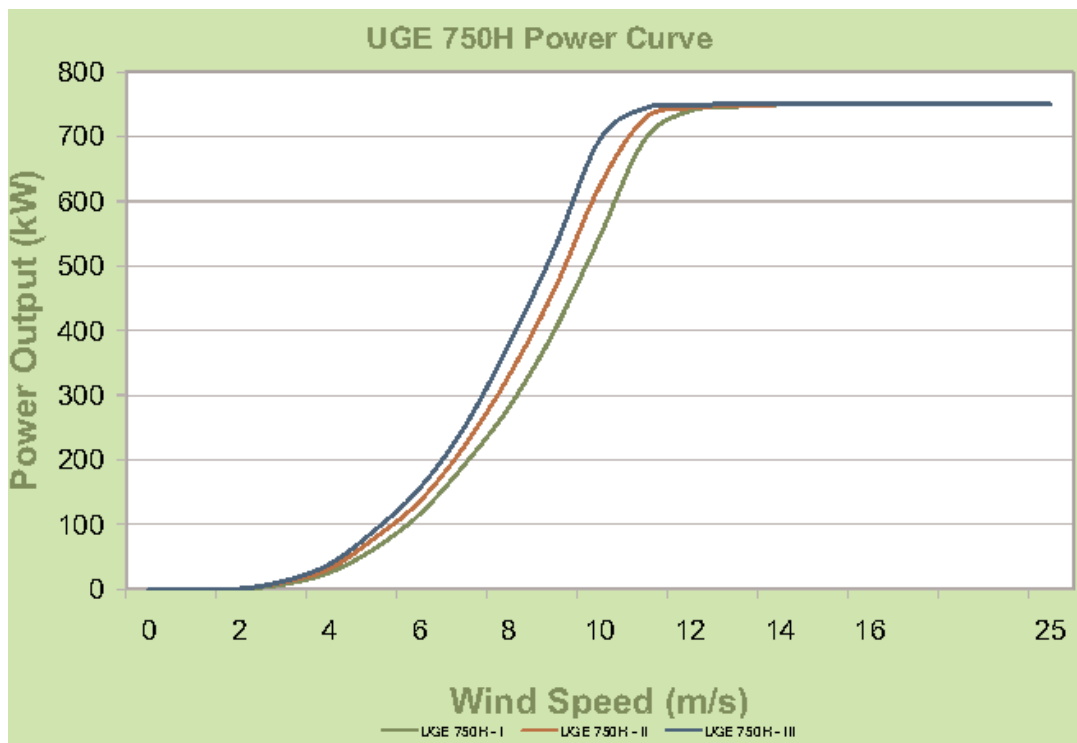


## Functionality and Maintenance

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.





# WIND ENERGY S.A.L.

## UGE 750H 750 kW Wind Turbine 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<sup>2</sup>

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