



# PowerWorks Wind Turbines



**100 kW Wind Turbines**

# PowerWorks 100 kW Wind Turbines



## Benefits

- Low cost renewable power
- Quick and easy installation
- High return on investment
- Lowers long-term electric costs
- High reliability
- Low maintenance
- Fast delivery
- Withstands extreme weather conditions
- Reduces toxic pollutant emissions
- Creates “green” brand image



## Applications

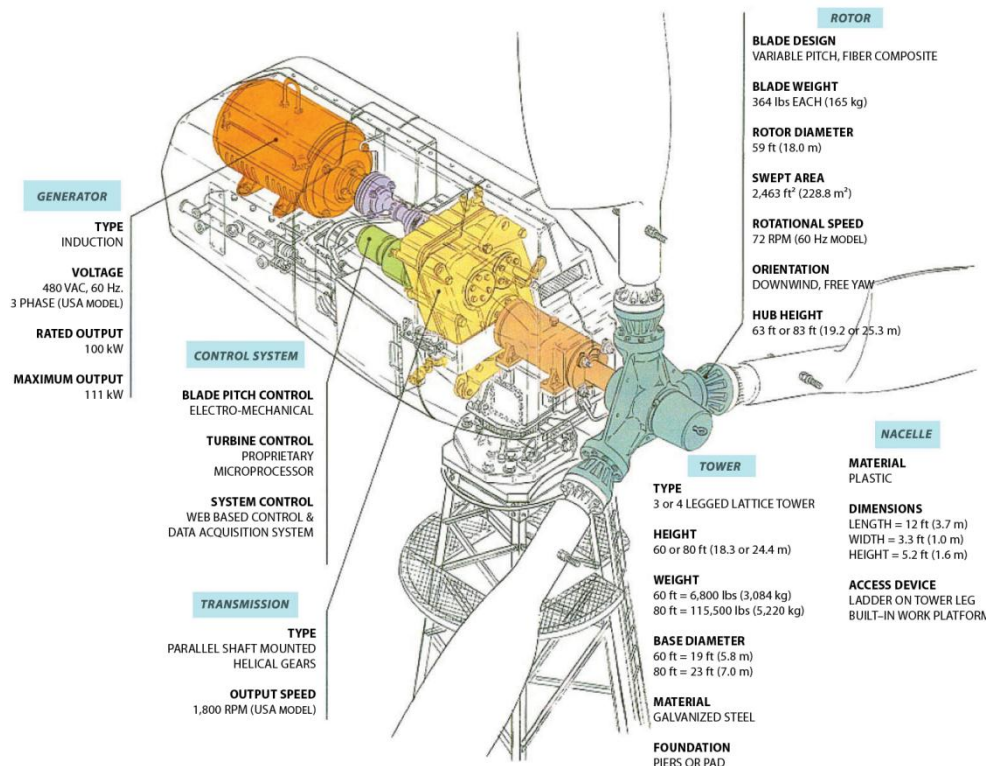
- Islands
- Ski resorts
- Businesses
- Universities
- Big box stores
- Resorts & hotels
- Rural electric co-ops
- Industrial complexes
- Large commercial farms
- Manufacturing facilities
- Municipal electric utilities
- Community wind projects
- Municipal water treatment plants

## High Reliability/Availability

Over 5,000 of these 100 kW wind turbines have been installed in five countries around the world. Now in operation for over 20 years, the KCS56 wind turbine product line has produced well over 13 billion kWh since the model's inception, which demonstrates the quality of the design and the overall reliability of the product.

Further, the historic turbine operating availability from our Altamont Pass operations, typically at approx. 97% to 98% availability for the past 10 years in a row, confirm this turbine's overall remarkable reliability. The 100 kW KCS56 wind turbine is one of the most reliable wind turbines ever built!

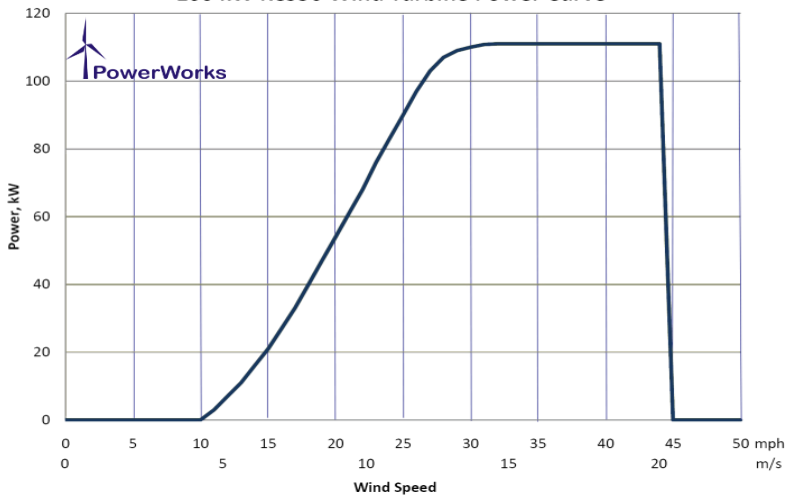
## Robust Design



- rebuilt or new wind turbines
- standard 2-yr warranty or extended 5-yr warranty
- 60 Hz to 50 Hz converter for international applications
- extensive spare parts inventory
- complete turbine repair services
- comprehensive project / site engineering
- site wind resource analysis
- energy production forecast
- turbine installation and commissioning
- operation and maintenance services
- support services to fit your needs
- 24/7 tech support

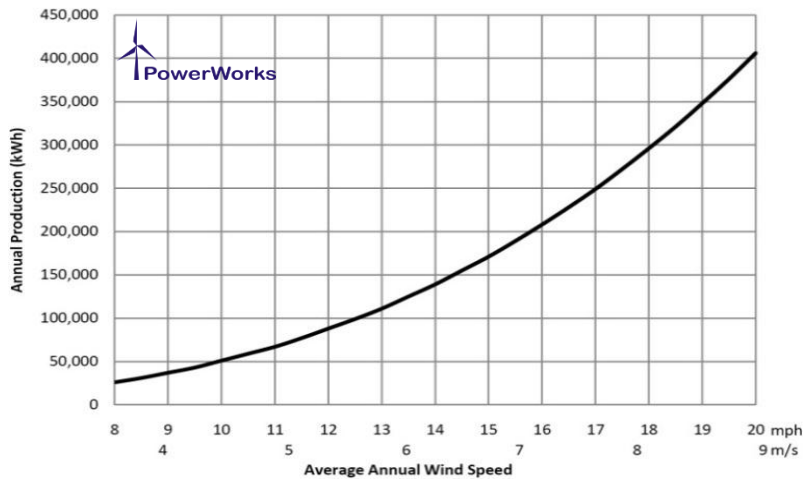
## Power Curve

100 kW KCS56 Wind Turbine Power Curve



## Annual kWh Production

100 kW KCS56 Wind Turbine Annual kWh Production



## Specifications

### Generator

induction 480 VAC, 60 Hz, 3 phase

rated output 100 kW

### Transmission

2-stage helical gearbox, 25:1 ratio

1,800 rpm output, 72 rpm input

### Rotor

variable pitch blade design

rotor diameter 59 ft (18.0 meters)

swept area 2,463 ft<sup>2</sup> (229 m<sup>2</sup>)

rotational speed 72 rpm

downwind orientation, free yaw

### Blades

fiberglass, 27.3 feet (8.3 m)

### Tower

60 ft (18.3 meters) and 80 ft (24.4 meters) lattice towers

up to 140 ft (42.7 meters) tube towers

### Control System

web-based automated control system

15850P Jess Ranch Road • Tracy, California 95377 USA • [www.powerworks.com](http://www.powerworks.com)  
 Morgan McGovert • phone 925.230.8145 • e-mail [mm@powerworks.com](mailto:mm@powerworks.com)