

Vertical Axis Wind Turbine



TWR Holding Group

2017



OVERVIEW

HOW DO WIND TURBINES WORK?

Wind is a clean, free, and readily available renewable energy source. Every day around the world, wind turbines are capturing the wind's power and converting it to electricity. Wind turbines allow us to harness the power of the wind and turn it into energy. When the wind blows, the turbine's blades spin clockwise, capturing energy. This triggers the main shaft, connected to a gearbox within the nacelle, to spin. The gearbox sends that energy to the generator, converting it to electricity. Electricity then travels down the tower to a transformer, where it is converted again to AC or DC voltage depending on the grid.

TYPES OF WIND TURBINES

Modern wind turbines fall into two basic groups: the horizontal-axis variety, the vertical-axis design, like the eggbeater-style, named after its French inventor.

Horizontal-axis wind turbines typically either have three or five blades. Vertical-axis wind turbines typically have more than five blades.

SIZE OF WIND TURBINES

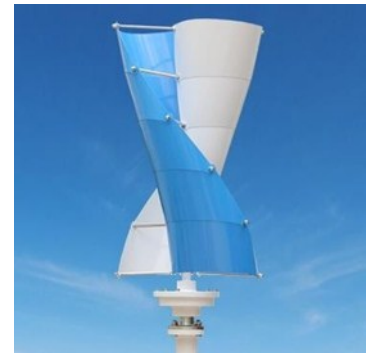
Utility-scale turbines range in size from 100 kilowatts to as large as several megawatts. Larger wind turbines are more cost effective and are grouped together into wind farms, which provide bulk power to the electrical grid. Single small turbines, below 100 kilowatts, are used for street light, homes, telecommunications dishes, or water pumping. Small turbines are sometimes used in connection with diesel generators, batteries, and photovoltaic systems. These systems are called hybrid wind systems and are typically used in remote, off-grid locations, where a connection to the utility grid is not available.



DE-AW01



DE-AW02



DE-AW03



DE-AW04



DE-AW05A



DE-AW05B



WIND TURBINE TWR-DEAW04

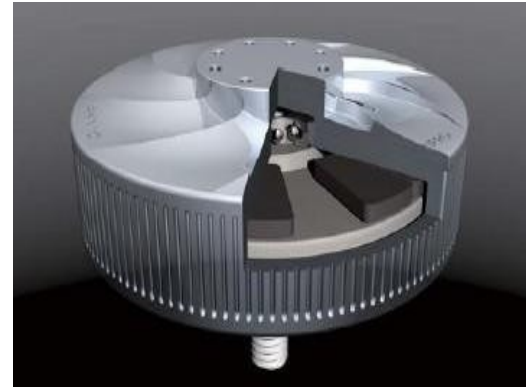
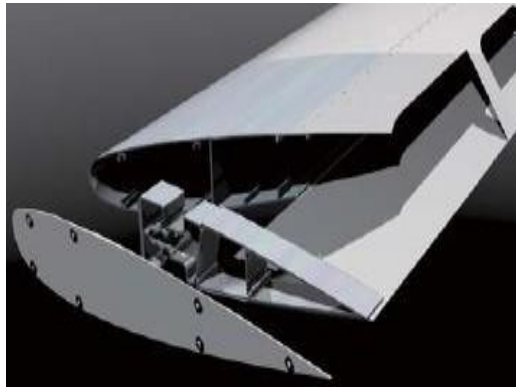
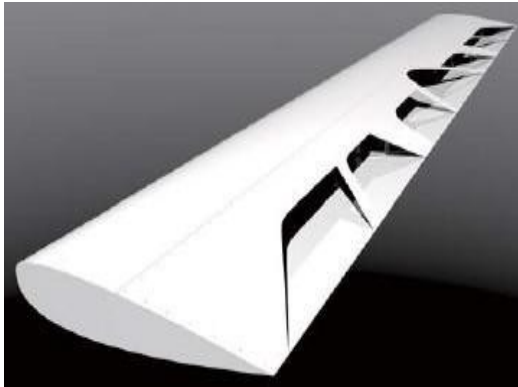


SPECIFICATIONS					
Model	TWR-DEAW04				
Rated Power	200 W	300 W	400 W	500 W	600 W
Max. power	220 W	320 W	420 W	515 W	610 W
Rotor Voltage	12/24 VDC	12/24 VDC	12/24 VDC	12/24 VDC	48 VDC
Blades Diameter	1.2 M	1.4 M	1.4 M	1.6 M	1.8 M
Blades Height	1.4 M	1.6 M	1.6 M	1.8 M	2.0 M
Star up wind speed	2.0 M/S	2.0 M/S	2.0 M/S	2.0 M/S	2.5 M/S
Rated wind speed	12.0 M/S	12.0 M/S	12.0 M/S	12.0 M/S	12.0 M/S
Survival wind speed	35 M/S	35 M/S	35 M/S	35 M/S	35 M/S
No. of Blades			5 PCS		
Material of Blades	Aluminum alloy				
Generator	Three-phase AC Maglev generator				
Operating System	Electromagnetism				
Working Temperature	40°C- 80°C				

SPECIFICATIONS					
Model	TWR-DEAW04				
Rated Power	1 KW	2 KW	5 KW	10 KW	20 KW
Max. power	1.2 KW	2.2 KW	5.5 KW	12 KW	23 KW
Rotor Voltage	48 V	48V/96V	120V/220V	360V	360V
Blades Diameter	2.2 M	2.55 M	3.6 M	5.8 M	7.6 M
Blades Height	2.4M	3.0 M	4.5 M	8.0 M	10.0 M
Star up wind speed	2.0 M/S	2.0 M/S	2.0 M/S	2.0 M/S	2.5 M/S
Rated wind speed	12.0 M/S	12.0 M/S	12.0 M/S	12.0 M/S	12.0 M/S
Survival wind speed	35 M/S	35 M/S	35 M/S	35 M/S	35 M/S
No. of Blades			5PCS		
Material of Blades	Reinforced Glass		Aluminum alloy		
Generator	Three-phase AC Maglev generator				
Operating System	Electromagnetism				
Working Temperature	40°C- 80°C				



WIND TURBINE TWR-DEAW04





WIND TURBINE TWR-DEAW04

Drawing Wind Turbine System 20 kW

