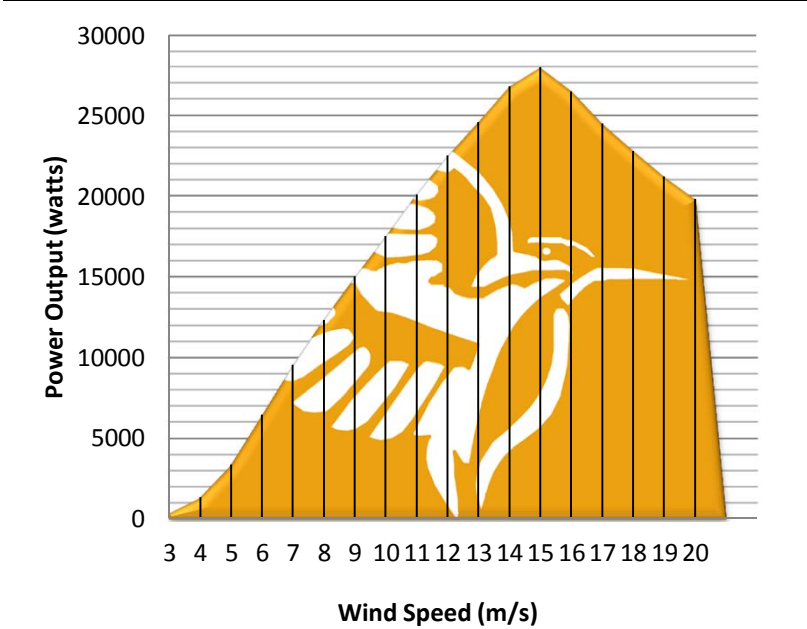


# 20kW

## HUMMER WIND POWER ACTIVE YAW CONTROL SMALL WIND TURBINE TECHNICAL SPECIFICATIONS



### POWER CURVE



Rated Power (W):	20,000 Watts
Maximum Output (W):	28,000 Watts
Charging Voltage (VDC):	250
Number of Blades:	3
Blade Material:	GRP (Glass Fiber Reinforced Plastic)
Blade Diameter:	29.5 ft. (9m)
Start-up Wind Speed:	6.7 mph (3m/s)
Rated Wind Speed:	25.7 mph (11.5m/s)
RPM:	180
Speed Regulation (Protection):	Yawing (Mechanical) + Manual
Wind Energy Utilizing Ratio (Cp):	0.40
Generator Output:	Single-phase Frequency Conversion AC
Output AC Frequency (Hz):	0-360
Rate Charging Current (A):	83.3
Maximum Charging Current (in a short time) (A):	120
Noise (5m behind turbine @ 5m/s gusting):	34 dB
Generator Efficiency:	>85%
Total Tower Top Weight:	2,068 lbs. (940kg)
Turbine Warranty:	5 Year Limited
Inverter Warranty:	10 Year Limited

### WIND SPEED & POWER OUTPUT

Wind Speed (m/s)	3	4	5	6	7	8	9	10
Wind Speed (mph)	6.7	8.9	11.1	13.4	15.6	17.8	20.1	22.3
Power Output (watts)	360	1,300	3,300	6,400	9,500	12,300	15,000	17,500
Wind Speed (m/s)	11.5	12	13	14	15	16	17	18
Wind Speed (mph)	25.7	26.8	29.0	31.3	33.5	35.7	38.0	40.2
Power Output (watts)	20,100	22,500	24,600	26,800	28,000	26,500	24,500	22,800
Wind Speed (m/s)	19	20						
Wind Speed (mph)	42.5	44.7						
Power Output (watts)	21,200	19,800						

### GRID CONNECT COMPONENTS

1-Siemens Series Seven PLC Active Yaw Controller, 4-7kW UL 1741/IEEE 1547 Certified Inverters. Rectifier, Unloader and Remote Monitoring System. Monopole, Hydraulic and Lattice towers available.