

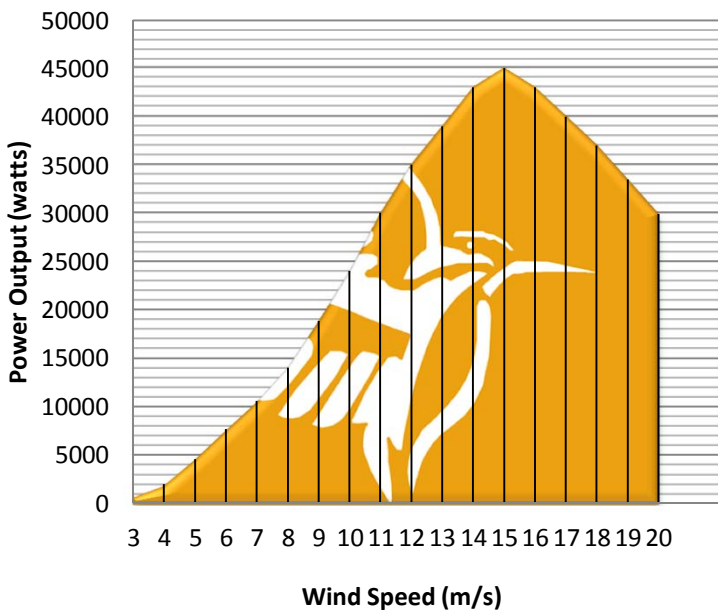
## HUMMER WIND POWER ACTIVE YAW CONTROL SMALL WIND TURBINE

### TECHNICAL SPECIFICATIONS



Rated Power (W):	30,000 Watts
Maximum Output (W):	45,000 Watts
Charging Voltage (VDC):	360
Number of Blades:	3
Blade Material:	GRP (Glass Fiber Reinforced Plastic)
Blade Diameter:	32.8 ft. (10m)
Start-up Wind Speed:	5.6 mph (2.5m/s)
Rated Wind Speed:	24.6 mph (11m/s)
RPM:	160
Speed Regulation (Protection):	Yawing (Mechanical) + Hydraulic + Manual
Wind Energy Utilizing Ratio (Cp):	0.42
Generator Output:	Single-phase Frequency Conversion AC
Output AC Frequency (Hz):	0-400
Rate Charging Current (A):	83
Maximum Charging Current (in a short time) (A):	125
Noise (5m behind turbine @ 5m/s gusting):	34 dB
Generator Efficiency:	>92%
Total Tower Top Weight:	3,300lbs. (1,500kg)
Turbine Warranty:	5 Year Limited
Inverter Warranty:	TBD

### POWER CURVE



### 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)	700	1,900	4,500	7,600	10,500	14,000	18,800	24,000
Wind Speed (m/s)	11	12	13	14	15	16	17	18
Wind Speed (mph)	24.6	26.8	29.0	31.3	33.5	35.7	38.0	40.2
Power Output (watts)	30,000	35,000	39,000	43,000	45,000	43,000	40,000	37,000
Wind Speed (m/s)	19	20						
Wind Speed (mph)	42.5	44.7						
Power Output (watts)	33,500	29,900						

The Hummer 30kW Inverter is undergoing UL1741 certification and is projected to be certified and available for North American sales in 2012.

### GRID CONNECT COMPONENTS

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