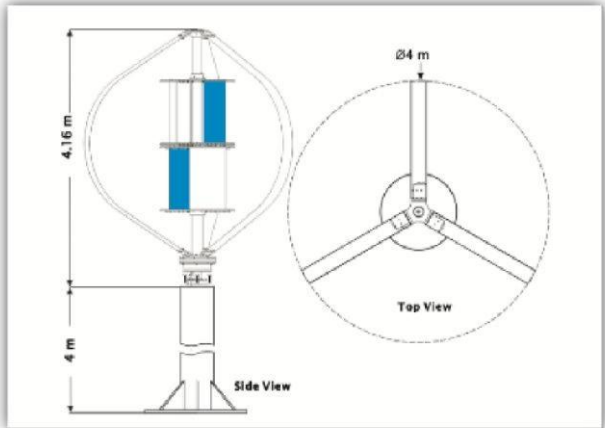
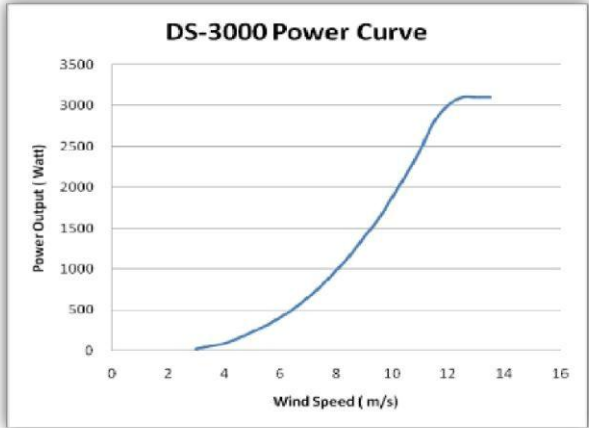



Vertical Axis Wind Turbine Power System Model: VWT-H3K

PRODUCT SPECIFICATIONS

General Specifications			
Rated Power	3kW	Rated Wind Speed	12 m/s
Rated Speed	230 rpm	Cut in Wind Speed	<3 m/s
Cut out Wind Speed	15 m/s	Survival Wind Speed	60 m/s
Dimensions/Weight			
Rotor Diameter	4m		
Rotor Height	4.2m		
Tower Height	4 m (minimum)		
Total Height	8.2m (minimum)		
Turbine Weight	680kg w/o tower		
Rotor Specifications			
External Darrius	3 blades		
Internal Savonius	2 layers		
Blades Material	Anodized aluminum		
Axis Material	Galvanized steel SS400		
Generator Specifications		Power Curve	
Generator Type	AC, 3phase, Synchronism PMG		
Rated Output	3kW		
Braking System			
Automatic	Automatic dump-load and 3-phase short circuit braking system		
Manual	Mechanical drum brake		
Operation Conditions			
Ambient Temperature	-10~40°C		
Ambient Humidity	95% max.		

Vertical Axis Wind Turbine Power System Model: VWT-H3K

PRODUCT SPECIFICATIONS

IV-3K Grid-tied inverter	Specification of IV-3K	
	Output power	3000W
	Maximum power	3500W
	Input	
	Generator Required	3-phase AC PM Generator
	Nominal AC Voltage	260Vac rms
	Working range	35Vac \pm 5% ~ 220Vac \pm 5%
	MPPT range	45 to 220 Vac
	Initial feeding voltage	45 Vac
	Max. input current	15 A
	System Cut-out voltage	280V
	Output	
	Operational voltage	192 to 254 VAC
	Maximum Output current	15 A
	Operational frequency	50/60Hz
	Power factor	>0.99 @ Full-Load
	Current distortion	$<5\%$
	Maximum Efficiency	$>90\%$
	Anti-Islanding	Yes
	Environment	
	Protection degree	IP45
	Operation temperature	-20 to 40°C
	Humidity	0 to 95%, non-condensing
	Heat Dissipation	Convection
	Acoustic noise level	$<40\text{dB}$,A-weighted
	Communication & features	RS232 standard, SNMP optional(not yet ready)
	Mechanical	
	WxDxH (mm)	480x370x185
	Weight (kg)	20kg
Certificate	VDE0126./ ce	



Vertical Axis Wind Turbine Power System Model: VWT-H3K

PRODUCT SPECIFICATIONS

PVI-3600



SPECIFICATIONS	PVI-3.0-OUTD-US-W	PVI-3.6-OUTD-US-W	PVI-4.2-OUTD-US-W
INPUT PARAMETERS (DC Side)			
Nominal DC Power	3120 W	3750 W	4380
Total Max DC Power	3500 W	4150 W	4820 W
Operating MPPT Input Voltage Range	50 V to 580 V (360Vnominal)		
Full Power MPPT Range	200 V to 530 V	200 V to 530 V @ Vgrid 277 V 200 V to 530 V @ Vgrid 240 V 220 V to 530 V @ Vgrid 208 V	200 V to 530 V @ Vgrid 277 V 220 V to 530 V @ Vgrid 208 V 220 V to 530 V @ Vgrid 208 V
Max Input Voltage	600 V		
Activation Voltage	200 V nominal (adjustible from 50 V to 350 V)		
Max. DC Current	20A (25A short circuit)	32A (40A short circuit)	32A (40A short circuit)
Thermal Protected DC Side Varistor	4		
DC Connectors	4 (2 positive; 2 negative)		
	Screw Terminal Block		
	Wire sizes : Solid, from, AWG20 to AWG 6 - Stranded, from AWG20 to AWG 9 Cable Gland: M25 - Cable diameter: 3/8" to 11/16"		
OUTPUT PARAMETER (AC Side)			
Nominal AC Power	3000 W	3600 W	4200 W
Max AC Power	3300 W	4000 W	4600 W
AC Grid Connection	split phase 240V - single phase 208V/277V		
Nominal AC Voltage	Default 240V; Optional 208V or 277V (setting required)		
AC Voltage Range	277 V (244-304)	240 V (211-264)	208 V (183- 228)
Nominal AC Frequency	60 Hz		
Continuous AC Output Current	12A - 14.5A - 14.5A	16A - 17.2A - 17.2A	20A - 20A - 20A
Maximum Output DC Protection	15A - 20A - 20A	15A - 25A - 25A	25A - 25A - 25A
AC Side Varistor	2 (live-neutral / live-PE)		
AC Connectors	Screw Terminal Block		
	Wire sizes : Solid, from, AWG20 to AWG 6 - Stranded, from AWG20 to AWG 8		
	Cable Gland: M25 - Cable diameter: 3/8" to 11/16"		
Line Power Factor	1		
AC Current Distortion	< 2% at rated power with sine wave voltage		
Max Efficiency	96.8%		
CEC Efficiency	96%		
Feed in Power Threshold	20W		
Nighttime Consumption	<2W		
Isolation	Non-Isolated Transformerless Topology		
ENVIRONMENTAL PARAMETERS			
Cooling	Natural Convection		
Operating Ambient Temperature Range	-25 °C to +60 °C output power derating for Tamb > 55 °C		-25 °C to +60 °C derating for Tamb > 45 °C
Operating Altitude	6,000 ft		
Acoustical Noise	< 50 dBA @ 1mt		
Environmental NEMA rating	NEMA 4X		
Relative Humidity	0-100% condensing		
MECHANICAL			
Dimensions (HxWxD)	547x352x208mm - (21 1/2", 12 3/4", 8 1/4")		
Weight	17 Kg - (37.5 lbs)		
OTHERS			
Display	Two Line Alphanumeric LCD		
Communication	RS485 (spring terminal block - wire cross section: AWG28-16)		
	USB connection (for Service only)		
	"AURORA Easy Control" system for remote control (Optional)		

Remark 1: For US market, there is PVI-3600 as option which is UL1741 approved.