



Vertical Axis Wind Turbine Power System Model number: DS1500



PRODUCT SPECIFICATIONS

General Specifications			
Rated Power	1.5kW	Rated Wind Speed	12 m/s
Rated Speed	250 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	2.8m		
Rotor Height	2.9m		
Tower Height	4m (minimum)		
Total Height	6.9m (minimum)		
Turbine Weight	380kg w/o tower		
Rotor Specifications			
External Darrieus	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	1.5kW		
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.		



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<p>WD152 Stand-alone controller</p> 	<p style="text-align: center;">Specification of WD152</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; background-color: #f2f2f2;">WINDPOWER CONTROL MODEL</th> </tr> </thead> <tbody> <tr> <td style="width: 60%;">Model</td> <td>WD-152</td> </tr> <tr> <td>Rated Output Capacity</td> <td>1500W</td> </tr> <tr> <td>Rated Input Voltage</td> <td>0~76V</td> </tr> <tr> <td>Max. Range of Input Voltage</td> <td>0~80V</td> </tr> <tr> <td>Rated Input Current</td> <td>23A</td> </tr> <tr> <td>MPPT Efficiency</td> <td>>95%</td> </tr> <tr> <td>Charge Efficiency</td> <td>>85%</td> </tr> <tr> <td>DC Converter Efficiency (exclude 3 phase rectifier)</td> <td>90% max.</td> </tr> <tr> <td>Charge (Start/Stop)</td> <td>13V / 10V ±1V</td> </tr> <tr> <td>Run Voltage</td> <td>13V ±1V</td> </tr> <tr> <td>Load Current</td> <td>30A max.</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 30%;">Suggested batteries</td> <td>12V100Ah x4 by serial connected as a “set”, and 2 “set”s by parallel connected as minimum requirement.</td> </tr> <tr> <td>Control functions</td> <td>Maximum Peaking Power Tracking (MPPT) system with automatic over speed braking control.</td> </tr> </table>	WINDPOWER CONTROL MODEL		Model	WD-152	Rated Output Capacity	1500W	Rated Input Voltage	0~76V	Max. Range of Input Voltage	0~80V	Rated Input Current	23A	MPPT Efficiency	>95%	Charge Efficiency	>85%	DC Converter Efficiency (exclude 3 phase rectifier)	90% max.	Charge (Start/Stop)	13V / 10V ±1V	Run Voltage	13V ±1V	Load Current	30A max.	Suggested batteries	12V100Ah x4 by serial connected as a “set”, and 2 “set”s by parallel connected as minimum requirement.	Control functions	Maximum Peaking Power Tracking (MPPT) system with automatic over speed braking control.																
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PRODUCT SPECIFICATIONS

PVI-6000



Specification of PVI-6000

INPUT PARAMETERS (DC Side)	
Nominal DC Power [kW]	6.18
Total Max. Recommended DC Power [kW]	6.4
Operating MPPT Input Voltage Range [V]	50 to 580 (360 nominal)
Full Power MPPT Range [V]	180-530
Max. Input Voltage [V]	600
Activation voltage [V]	200 nominal (adjustable within 50-350)
No. of independent MPPT trackers	1
No. of DC Inputs	1
Max. DC Current, each MPPT [A]	36 (44 short circuit)
Thermally Protected DC side varistor	4
DC Connections	4 (2 positive ; 2 negative) screw terminal block Wire size: Solid from AWG 20 to AWG 6 / Stranded from AWG 20 to AWG 8 Cable gland: M25-cable diameter 3/8" to 1 1/16"
OUTPUT PARAMETERS (AC Side)	
Nominal AC Power [kW]	6
Max. AC Power [kW]	6
AC Grid Connection	single phase 208/277 - split phase 240
Nominal AC Voltage Range [V]	Default - 240V; Optional 208 or 277V (setting required)
Maximum AC Voltage Range [V]	187-224.6 ; 216-25.2 ; 249.3-299.2
Nominal AC Frequency [Hz]	60
Max. AC Line Current [A]	24/20/18 (30 short circuit)
AC side varistor	2 (Live - Neutral / Live - PE) Screw terminal block
AC Connection	Wire size: Solid from AWG 20 to AWG 6 / Stranded from AWG 20 to AWG 8 Cable Gland: M25 - Cable diameter 3/8" to 1 1/16"
Line Power Factor	1
AC Current Distortion (THD)	<2% at rated power with sine wave voltage
Max. Efficiency	97%
CEC Efficiency	96.5%
Feed In Power Threshold [W]	20
Night Time consumption [W]	< 2
Isolation	No (Transformer-less)
ENVIRONMENTAL PARAMETERS	
Cooling	Natural cooling
Ambient Temp. Range [°C]	-25 / +60 (output power derating above 50°C)
Operating Altitude [ft]	6,000
Acoustical Noise [dBA]	< 50 @ 1m t
Environmental IP Rating	IP65
Relative Humidity	0-100% condensing
MECHANICAL	
Dimensions (HxWxD) [mm]	740x325x195 (29 1/8" x 12 13/16" x 7 11/16")
Weight [kg]	27 (57.3 lbs)
OTHER	
Display	YES (Alphanumeric 2 lines)
Communication	RS485 (Spring terminal block - Conductor cross section: AWG28-16) USB connection (Service) "Aurora Easy-Control" system for remote control (Optional)

Standards and Codes

Aurora inverters comply with standards set for grid-tied operation, safety, and electro magnetic compatibility including: UL1741 & CSA -C22.2 N.107.1-01, VDE 0126, CEI 11-20, DK5940, CEI 6-8, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, B Real Decreto RD1663/2000 de España.

Remark: All systems are CE certified.