Wind&Solar Hybrid Controller

Applications

➢Independent wind power plant

➢Independent household wind power generation system

➢Power supply for those unmanned regions like mobile communication station, high way, the coastal islands, remote mountainous regions and border posts.

➢ Regional research projects, government demonstration projects, landscape lighting projects for those places with insufficient power or power shortages.

Features

➢Can be applied to wind&solar hybrid off-grid system

➢Several functions are optional, such as wind speed measure function, rotational speed control function and temperature compensation function.

➢RS232/RS485/RJ45/GPRS/Bluetooth/Zigbee optional. (It can be monitored by app for those with GPRS/WIFI/Bluetooth/RJ45 connection)

Technical Parameters

3KW

Model	WWS30-48	WWS30-120	WWS30-240
Wind Turbine Input			
Rated input power	3kW		
Rated input voltage	48Vdc	120Vdc	240Vdc
Input voltage range	0~64Vdc	0~160Vdc	0~320Vdc
Rated input current	63Adc	25Adc	13Adc
Brake by hand	Press button "Enter" "Esc" at the same time to unload completely. Then recover by hand.		
Brake by over current	63A (factory default, 0~63A settable) unload completely when reached the set current, and recover automatically after working 10mins.	25A (factory default, 0~25A settable) unload completely when reached the set current, and recover automatically after working 10mins.	13A (factory default, 0~13A settable) unload completely when reached the set current, and recover automatically after working 10mins.
Brake by overvoltage	Refer to "output overvoltage" control		
Brake by over wind speed	Optional		
Brake by over rotational Speed	Optional		
PV Input (optional)			
Rated input power	900W		
Max. Open circuit voltage	96Vdc	240Vdc	480Vdc
Rated input current	19Adc	8Adc	4Adc
Reversed connection protection	YES		
Charge Parameters (optional)			
Rated battery voltage	48Vdc	120Vdc	240Vdc

Temperature compensation function (optional)	-3mV/℃/2V		
Output Parameters			
Rated output voltage	48Vdc	120Vdc	240Vdc
Output overvoltage point	58Vdc	145Vdc	290Vdc
Output overvoltage recovery point	Less than output overvoltage		
Max. Output current	63Adc	25Adc	13Adc
General Parameters			
Rectifier mode	Uncontrolled rectifier		
Display mode	LCD		
Display information	DC output voltage, wind turbine voltage/current/power/battery voltage and PV power/voltage/current		
Monitoring mode (optional)	RS232/RS485/RJ45/GPRS/Bluetooth/Zigbee		
Monitoring Contents	Real-time display:DC output voltage, wind turbine voltage/current/power/battery voltage and PV power/voltage/current Parameter setting: Output overvoltage point, wind turbine over current point, and wind turbine brake settings.		
Lightning protection	YES		
Conversion efficiency	≥95%		
Static loss	＜5W	＜7W	＜7W
Ambient temperature	-20℃～+40℃		
Humidity	5%~95%, No condensing		
Noise	≤65dB		
Cooling mode	Natural cooling		
Installation mode	Wall-mounted		
Cover protection class	IP20		
Product dimension (W*H*D)	440×305×170 mm		

Product net weight	7.5kG
Dump load dimension(W*H*D)	400×390×210mm
Dump load weight	12kG

Note: Part of parameters can be adjusted according to customer's specific demand.

5-10KW

Model	WWS50-48	WWS100-120
Wind Turbine Input		
Rated input power	5kW	10kW
Rated input voltage	48Vdc	120Vdc
Input voltage range	0~64Vdc	0~160Vdc
Rated input current	105Adc	84Adc
Brake by hand	Press button "Enter" "Esc" at the same time to unload completely. Then recover by hand.	
Brake by over current	105A (factory default, 0~105A settable) unload completely when reached the set current, and recover automatically after working 10mins.	84A (factory default, 0~84A settable) unload completely when reached the set current, and recover automatically after working 10mins.
Brake by overvoltage	Refer to "output overvoltage" control	
Brake by over wind speed (optional)	14m/s (0-30m/s settable), unload completely when reached the set wind speed, and recover automatically after working 10mins.	
Brake by over rotational Speed (optional)	500r/min (factory default,0~1000r/min settable)Unload completely when reached the set rotational speed, and recover automatically after working 10mins.	
PV Input (optional)		
Rated input power	1500W	3000W
Max. Open circuit voltage	96Vdc	240Vdc
Rated input current	32Adc	25Adc

Reversed connection protection	YES	
Charge Parameters (optional)		
Rated battery voltage	48Vdc	120Vdc
Temperature compensation function (optional)	-3mV/℃/2V	
Output Parameters		
Rated output voltage	48Vdc	120Vdc
Output overvoltage point	58Vdc	145Vdc
Output overvoltage recovery point	Less than output overvoltage	
Max. Output current	42Adc	17Adc
General Parameters		
Rectifier mode	Uncontrolled rectifier	
Display mode	LCD	
Display information	DC output voltage, wind turbine voltage/current/power/battery voltage and PV power/voltage/current	
Monitoring mode (optional)	RS232/RS485/RJ45/GPRS/Bluetooth/Zigbee	
Monitoring Contents	Real-time display:DC output voltage, wind turbine voltage/current/power/battery voltage and PV power/voltage/current Parameter setting: Output overvoltage point, wind turbine over current point, and wind turbine brake settings.	
Lightning protection	YES	
Conversion efficiency	≥95%	
Static loss	＜5W	＜7W
Ambient temperature	-20℃～+40℃	
Humidity	5%~95%, No condensing	

Noise	≤65dB	
Cooling mode	Natural cooling	
Installation mode	Wall-mounted	
Cover protection class	IP42	
Product dimension (W*H*D)	440×425×170 mm	440×305×170 mm
Product net weight	12kG	9kG
Dump load dimension(W*H*D)	730×390×190mm	520×550×430mm
Dump load weight	19kG	45kG

Note: Part of parameters can be adjusted according to customer's specific demand.

20kW

Model	WWS200-240	WWS200-360
Wind Turbine Input		
Rated input power	20kW	20kW
Rated input voltage	240Vdc	360Vdc
Input voltage range	0~320Vdc	0~480Vdc
Rated input current	84Adc	56Adc
Brake by hand	Press button "Enter" "Esc" at the same time to unload completely. Then recover by hand.	
Brake by over current	84A (factory default, 0~84A settable) unload completely when reached the set current, and recover automatically after working 10mins.	56A (factory default, 0~56A settable) unload completely when reached the set current, and recover automatically after working 10mins.
Brake by overvoltage	Refer to "output overvoltage" control	
Brake by over wind speed (optional)	14m/s (0-30m/s settable), unload completely when reached the set wind speed, and recover automatically after working 10mins.	

Brake by over rotational Speed (optional)	500r/min (factory default,0~1000r/min settable)Unload completely when reached the set rotational speed, and recover automatically after working 10mins.	
PV Input		
Rated input power	6000W	6000W
Max. Open circuit voltage	480Vdc	720Vdc
Rated input current	25Adc	17Adc
Reversed connection protection	YES	
Charge Parameters (optional)		
Rated battery voltage	240Vdc	360Vdc
Temperature compensation function (optional)	-3mV/℃/2V	
Output Parameters		
Rated output voltage	240Vdc	360Vdc
Output overvoltage point	290Vdc	435Vdc
output overvoltage recovery point	Less than output overvoltage	
Max. Output current	84Adc	56Adc
General Parameters		
Rectifier mode	Uncontrolled rectifier	
Display mode	LCD	
Display information	DC output voltage,wind turbine voltage/current/power/battery voltage and PV power/voltage/current	
Monitoring mode (optional)	RS232/RS485/RJ45/GPRS/Bluetooth/Zigbee	

Monitoring Contents	Real-time display:DC output voltage, wind turbine voltage/current/power/battery voltage and PV power/voltage/current Parameter setting: Output overvoltage point, wind turbine over current point, and wind turbine brake settings.	
Lightning protection	YES	
Conversion efficiency	≥95%	
Static loss	＜5W	＜7W
Ambient temperature	-20℃～+40℃	
Humidity	5%~95%, No condensing	
Noise	≤65dB	
Cooling mode	Natural cooling	
Installation mode	Wall-mounted	
Cover protection class	IP42	
Product dimension (W*H*D)	440×305×170 mm	
Product net weight	10kG	
Dump load dimension(W*H*D)	680×420×675 mm	
Dump load weight	75kG	
Note: Part of parameters can be adjusted according to customer's specific demand.		