EEB1 Series

10KW PWM Wind/Solar Hybrid Controller Off-grid

Controller

Dump load

ENGELEC ENERGY
Intelligent manufacturing, Industry 5.0
Email:info@engelec.cn
www.engelecenergy.com
Quick quote: +86 13505876536

Product Features：

◆ The product is manufactured according the JB/T6939.1-2004 industrial standard and GB/T 19115.1-2003 national standard also with users' technical requirements.

◆ Big LCD display. The images tell working state visually. Various data show: real-time wind turbine voltage, current, power; solar panel voltage, current, power; battery group voltage, charge current.(The main board is with button battery, in case of power failure, history data can be saved for 30 days)

◆ Two sets of control systems：PWM constant voltage system and three-phase dump load system.

◆ PWM constant voltage control is 120% of the rated power of the wind turbine. In case exceeding of PWM's capacity, the three-phase dump load will automatically start immediately to ensure safe running of the overall wind turbine system.

◆ When the strong or super-strong wind conditions PWM control to ensure battery charged by the wind turbine with constant voltage and current.

◆ When the battery disconnect or damage, the three-phase dump load will start automatically to avoid the wind turbine idling and runaway accident.

◆ The protection function of battery: polarity reverse protection, disconnection and damage protection.

◆ Over-charging protection of the battery: When the battery is full (the battery voltage getting 125% of the rated voltage), the controller will carry out three-phase dump load automatically to stop charging the battery.

◆ Auto recharging of battery: When the battery voltage reduces to 108% of the rated voltage,it stops three-phase dump load to recharge battery automatically.

◆ The controller is equipped with manual three-phase dump load switch. To using this switch, the wind turbine will carry out three-phase dump load forcibly.

◆ The inside of the controller is equipped with surge arrester. Contain the over voltage into the wind turbine under the bearable voltage of the equipment or system. On the other way, to conduct the strong lightening current into the earth directly to avoid any damage of equipment.

Optional Function：

※ Solar panel control system is optional based on customers' requirement.

※ Disel generator port is optional. Control the generator start and stop automatically

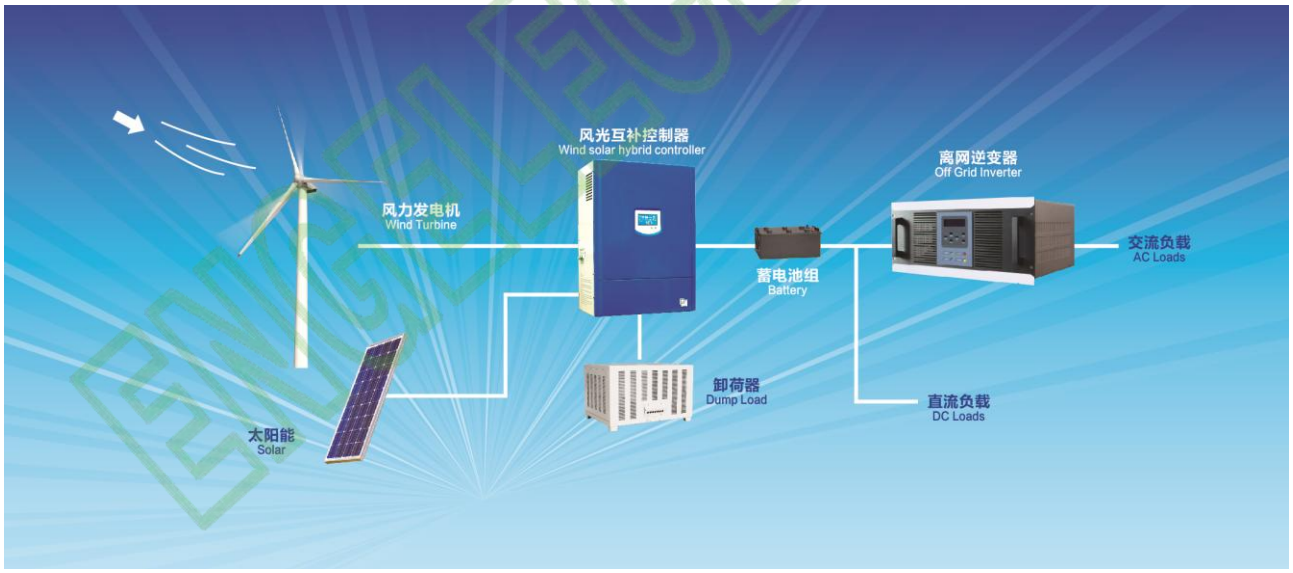
※ Adopt Modbus Communication protocol. Convenient to carry out the secondary development.

※ Adjusting the technical specification via RS485 is available. Convenient to adjust the different wind turbines for professional customers.

※ Support WIFI and GPRS. Customers can monitor the real-time working state of the on grid wind power system via PC and mobile and query history working sate. Both Android and OS are compatible in Mobile.

※ For the different wind turbine, the controller can be equipped with mechanical yawing, Rotate tail control, furled empennage, mechanical brake, hydraulic brake, electromagnetism brake and other brake functions.

Connection Diagram:



Technical Parameters

Type	10KW-120Vdc	10KW-220Vdc	10KW-240Vdc
Wind turbine rated power	10KW	10KW	10KW
Wind turbine max. power	20KW	20KW	20KW
*Solar panel power	3KWp	3KWp	3KWp
Battery	120Vdc	220V	240V
Function	Rectifier,charge, control, *DC output		
Automatic protection function	Over voltage protection, constant voltage charge, arrester		
Manual function	Manual brake		
Display mode	LCD+LED		
Display content	Wind turbine voltage, current, power; solar panel voltage, current, power; battery voltage, charge current		
PWM constant pressure voltage	>145Vdc	>260Vdc	>290 Vdc
Wind turbine 3-phase dump load voltage	150±2Vdc	270±2Vdc	300±5Vdc
Wind turbine recharge voltage	135±2Vdc	245±2Vdc	280±5Vdc
*Solar control stop charging voltage	150±2Vdc	265±2Vdc	300±5Vdc
*Solar control recharge voltage	135±2Vdc	<250Vdc	＜290Vdc
* Diesel generator starting voltage	100±2Vdc	180±2Vdc	200±5Vdc
*Diesel generator off voltage	135±2Vdc	245±2Vdc	270±5Vdc
Self-provided battery connecting wire	>12mm²	>18mm²	>12mm²
PWM fuse	125A	80A	63A
Solar fuse	32A	16A	16A
Charging fuse	160A	120A	100A
Work environment temperature	-30-60°C		
Relative humidity	＜90% No condensation		

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Noise (1m)	＜40dB		
Degree of protection	IP20（Indoor）IP65 (Outdoors)		
Cooling method	Forced air cooling		
*Extral Control function (optional)	Yawing, variable pitch, mechanical brake, hydraulic brake, electromagnetism brake		
*Communication interface (optional)	RS485/USB/GPRS/WIFI/Ethernet		
*Temperature compensation (optional)	-4mv/°C/2V,-35°C~+80°C,Accuracy:±1°C		
Controller Size (mm) Weight (kg)	580*400*240 24 Kg	580*400*240 24Kg	580*400*245 24Kg
Dump load Size (mm) Weight (kg)	700*450*530 37 Kg	700*450*530 37Kg	700*450*530 37Kg

***Above parameter only for reference only. Could be custom made to user specifications.**

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