

## On-Grid Wind Turbine Controller



### SWG T (Grid-tie) model On grid Wind Turbine Controller Product Characteristics

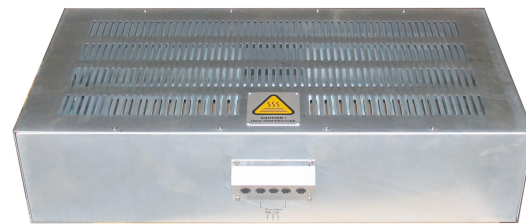
1. The product is manufactured according the JB/T6939.1-2004 industrial standard and GB/T 19115.1-2003 national standard also with users' technical requirements.
2. Big LCD display.The images tell working state visually.Various data show: real-time wind turbine voltage,current,solar panel voltage,current,DC output voltage,current,total power generation(The main board is with button battery,in case of power failure, history data can be saved for 30 days)
3. Two sets of control systems: PWM constant voltage system and three-phase dump load

system.

4. 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. After 10-20 minutes, the three-phase dump load will stop and the wind turbine will re-start to resume power supply to ensure the safe running of the overall wind turbine generation system.
5. When the strong or super-strong wind conditions, the controller can conduct constant voltage output to ensure the inverter safety running.
6. When the condition of disconnected grid-connected inverter, the controller can conduct constant voltage output and wait for inverter resumption.
7. When the grid is cut off, the three-phase dump load of the controller will automatically start to work and the inverter will stop output to grid. When the grid resuming, the controller stops three-phase dump load and the inverter will resume power supply.
8. The inside of the controller is equipped with surge protector. Contain the over voltage into the wind turbine under the bearable voltage of the equipment or system. On another way, to conduct the strong lightening current into the earth directly to avoid any damage of equipment.
9. The controller is equipped with emergency stop switch; in case of emergency, press down the emergency stop button in the front panel to cut off all power supply of the controller and the wind turbine will immediately brake ( three-phase dump load ) .

10. The controller is equipped with manual three-phase dump load switch. To using this switch, the wind turbine will brake (three-phase dump load).
- ※ 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.
  - ※ Can increase the solar panel control system according to customer requirements.
  - ※ For the different wind turbine, the controller can be equipped with mechanical yawing, rotate tail control, furred empennage, mechanical brake, hydraulic brake, electromagnetism brake and other brake functions.

## On Grid Wind Turbine (wind solar hybrid) Controller 1KW-3KW



### Technical Parameters of the On Grid Wind Turbine (wind solar hybrid) Controller 1.5KW-3KW

Type	SWGT-1.5KW	SWGT-2KW	SWGT-3KW
Wind turbine rated power	1.5KW	2KW	3KW
Wind turbine Max. power	3KW	4KW	6KW
Wind turbine rated voltage	AC220V	AC220V	AC220V
Solar panels power (optional)	300W	600W	900W
Function	Rectifier,control,DC output		
Automatic protection function	Over voltage protection, network electric cut off		

	protection, regulated supply output, arrester		
Manual function	Manual brake, reset, emergency switch		
Display mode	LCD		
Display content	Wind turbine voltage, current, power; Solar voltage, current, power; DC output voltage, DC output current, DC output power, total power.		
PWM constant voltage	≥320dc	≥320dc	≥320dc
Wind turbine 3-phase dump load voltage	350±5Vdc	350±5Vdc	350±5Vdc
Wind turbine 3-phase dump load time-lapse	12-20 min	12-20 min	12-20 min
Solar panels fuse	2A	3A	4A
PWM dump load fuse	10A	10A	16A
Fuse of DC output	16A	16A	20A
Work environment temperature	-30-60°C		
Relative humidity	<90% No condensation		
Noise (1m)	<40dB		
Degree of protection	IP20 (Indoor) IP65 (Outdoors)		
Cooling method	Forced air cooling		
Communication interface (optional)	RS485/USB/GPRS/WIFI/Ethernet		
Temperature compensation (optional)	-4mv/°C/2V,-35°C~+80°C,Accuracy:±1°C		
Size of the controller (mm)	510*360*240	510*360*240	510*360*240
Weight of the controller	15Kg	17Kg	17Kg
Size of the dump load (mm)	410*360*120	410*360*120	400*410*250
Weight of the dump load	7Kg	9Kg	13Kg

\*Above parameter only for reference

1. Could be custom made to user specifications. 2. Could have solar power control subject to user demand.

## On Grid Wind Turbine (wind solar hybrid) Controller 5KW-10KW



## Technical Parameters of the On Grid Wind Turbine (wind solar hybrid) Controller 5KW-10KW

Type	SWGT-5KW	SWGT-5KW	SWGT-10KW
Wind turbine rated power	5KW	5KW	10KW
Wind turbine Max. power	10KW	10KW	20KW
Wind turbine rated voltage	AC220V	AC380-400V	AC380-400V
Solar panels power(optional)	1.5KW	1.5KW	3KW

Function	Rectifier,control,DC output		
Automatic protection function	Over voltage protection, network electric cut off protection, regulated supply output, arrester		
Manual function	Manual brake, reset, emergency switch		
Display mode	LCD		
Display content	Wind turbine voltage, current, power; Solar voltage, current, power; DC output voltage, DC output current, DC output power, total power.		
PWM constant voltage	≥320dc	≥520dc	≥520dc
Wind turbine 3-phase dump load voltage	350±5Vdc	540±5Vdc	540±5Vdc
Wind turbine 3-phase dump load time-lapse	12-20 min	12-20 min	12-20 min
Solar panels fuse	5A	5A	8A
PWM dump load fuse	25A	16A	32A
Fuse of DC output	32A	20A	40A
Work environment temperature	-30-60°C		
Relative humidity	< 90% No condensation		
Noise (1m)	< 40dB		
Degree of protection	IP20(Indoor) IP65 (Outdoors)		
Cooling method	Forced air cooling		
Communication interface (optional)	RS485/USB/GPRS/WIFI/Ethernet		
Temperature compensation(optional)	-4mv/°C/2V,-35°C~+80°C,Accuracy:±1°C		
Size of the controller (mm)	510*360*240	510*360*240	580*400*240
Weight of the controller	18Kg	18Kg	23Kg
Size of the dump load (mm)	600*450*380	600*450*380	690*450*530
Weight of the dump load	28Kg	28Kg	35Kg

\*Above parameter only for reference

1. Could be custom made to user specifications. 2, Could have solar power control subject to user demand.

## On Grid Wind Turbine Controller 15KW-30KW



### Technical Parameters of the On Grid Wind Turbine Controller 15KW-30KW

Type	SWG-15KW	SWG-20KW	SWG-30KW
Wind turbine rated power	15KW	20KW	30KW
Wind turbine Max. power	30KW	40KW	60KW
Wind turbine rated voltage	AC380V-400V	AC380V-400V	AC380V-400V
Function	Rectifier,control,DC output		
Automatic protection function	Over voltage protection, network electric cut off protection, regulated supply output, arrester		



Manual function	Manual brake, reset, emergency switch		
Display mode	LCD		
Display content	Wind turbine voltage, current, power; Solar voltage, current, power; DC output voltage, DC output current, DC output power, total power.		
PWM constant voltage	≥520dc	≥520dc	≥520dc
wind turbine 3-phase dump load voltage1	540±5Vdc	540±5Vdc	540±5Vdc
wind turbine 3-phase dump load voltage2	-----	540±5Vdc	550±5Vdc
Time-lapse of the wind turbine 3-phase dump load2	12-20 min	12-20 min	12-20 min
PWM dump load fuse	50A	63A	80A
Fuse of DC output	63A	80A	100A
Work environment temperature	-30-60°C		
Relative humidity	< 90% No condensation		
Noise (1m)	< 40dB		
Degree of protection	IP20(Indoor) IP65 (Outdoors)		
Cooling method	Forced air cooling		
Communication interface (optional)	RS485/USB/GPRS/WIFI/Ethernet		
Temperature compensation(optional)	-4mv/°C/2V,-35°C~+80°C,Accuracy:±1°C		
Size of the controller (mm)	580*400*240	650*600*240	650*600*240
Weight of the controller	25Kg	36Kg	38Kg
Size of the dump load (mm)	690*450*530	720*500*1300	720*500*1300
Weight of the dump load	41Kg	70Kg	80Kg

\*Above parameter only for reference

1. Could be custom made to user specifications. 2. Could have solar power control subject to user demand.

## On Grid Wind Turbine Controller 50KW-200KW



### Technical Parameters of the On Grid Wind Turbine Controller 50KW-200KW

Type	SWGT-50KW	SWGT-100KW	SWGT-200KW
Wind turbine rated power	50KW	100KW	200KW
Wind turbine Max. power	100KW	200KW	300KW
Wind turbine rated voltage	AC400V	AC400V	AC400V
Function	Rectifier,control,DC output		
Automatic protection function	Over voltage protection, network electric cut off protection, regulated supply output, arrester		
Manual function	Manual brake, reset, emergency switch		
Display mode	LCD		
Display content	Wind turbine voltage, current, power; Solar voltage, current, power;		

	DC output voltage, DC output current, DC output power, total power.		
PWM constant voltage1	≥560Vdc	≥560Vdc	≥560Vdc
PWM constant voltage2	-----	≥560Vdc	≥560Vdc
PWM constant voltage3	-----	-----	≥560Vdc
wind turbine 3-phase dump load voltage1	580±5Vdc	580±5Vdc	580±5Vdc
three-phase dump load 1 delay time	12-20 min	12-20 min	12-20 min
wind turbine 3-phase dump load voltage2	600±5Vdc	600±5Vdc	600±5Vdc
three-phase dump load 2 delay time	12-20 min	12-20 min	12-20 min
wind turbine 3-phase dump load voltage3	-----	600±5Vdc	600±5Vdc
three-phase dump load 3 delay time	-----	12-20 min	12-20 min
PWM dump load fuse	100A	63A*2	63A*3
Fuse of DC output	160A	250A	450A
Connecting wire of the PWM dump load	>20mm <sup>2</sup>	>15mm <sup>2</sup>	>15mm <sup>2</sup>
Connecting wire of the dump load	>12mm <sup>2</sup>	>16mm <sup>2</sup>	>20mm <sup>2</sup>
Work environment temperature	-30-60°C		
Relative humidity	< 90% No condensation		
Noise (1m)	< 40dB		
Degree of protection	IP20 (Indoor)		
Cooling method	Forced air cooling		
Communication interface	RS485/USB/GPRS/WIFI/Ethernet(optional)		
Temperature compensation	-4mv/°C/2V,-35°C~+80°C,Accuracy: ± 1°C		
Size of the controller (mm)	600*500*1200mm	600*500*1200mm	600*500*1200mm
Weight of the controller	94Kg	96Kg	96Kg
Size of the dump load (mm)	720*500*1300	720*500*1300(2pcs)	720*500*1300(2pcs)
Weight of the dump load	107Kg	107Kg*2	107Kg*2

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



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