

## 30kW Wind & Solar Power Conversion System



### Applications

- Wind power generation plant, solar power generation plant
- Independent household wind power generation system.
- Power supply for those unmanned regions like 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

- Maximum Power Point Tracking for wind turbine and solar power generation.
- Applicable for not only on-grid system, but also off-grid system. And supportable for seamless switch between on-grid and off-grid.
- Support grid charging and diesel charging.
- Motor soft starting on off-grid state.
- Support three-phase 100% unbalanced output load on off-grid state.

## Technical Parameters

Model	WWSPCS300
<b>Wind Input Data</b>	
Rated input power	10kW
Rated input voltage	480Vdc
MPPT voltage range	150-550Vdc
Startup voltage	150Vdc( factory default, 150Vdc-550Vdc settable)
Over current brake	24A (factory default, 0-24settable)
<b>PV Input Data</b>	
Rated input power	10kW
Max. PV open circuit voltage	650Vdc
MPP voltage range at full load	305V~450Vdc
MPPT efficiency	>99%
Max. input current	33A dc
<b>Battery Data</b>	
Rated battery voltage	512 Vdc
Output over-voltage lower limit (start dump load voltage)	540Vdc

Output over-voltage upper limit(complete dump load voltage)	560Vdc
Max. charging current	70 Adc
Max. discharging current	70 Adc
Lithium battery charge& discharge mode	According to BMS
<b>Diesel Engine Data</b>	
Rated Power	21kW
Rated voltage	380/400Vac (Three-phase four-wire)
Rated Frequency	50Hz
<b>On-Grid Operation Data</b>	
Input voltage range	430~600 Vdc
Rated output power	30kVA
Rated grid voltage	380/400Vac (Three-phase four-wire)
Allowed grid voltage range	310~450Vac
Rated grid frequency	50Hz
Allowed grid frequency range	47~53.5Hz
Power factor	>0.99
Total Harmonic Distortion (THDi)	<5%
<b>Off-Grid Operation Data</b>	

Input voltage range	430~600 Vdc
Rated output power	30kW
Rated output voltage	400Vac (Three-phase four-wire)
Capacity with unbalanced load	100%
Total Harmonic Distortion (THDu)	<3% (linear load)
Rated output frequency	50Hz
Dynamic voltage transient range	<10%
<b>Protection</b>	
Wind turbine brake protection	YES
PV reversed connection protection	YES
Battery reversed connection protection	YES
Battery over-voltage / under-voltage protection	YES
IPM module Over-temperature protection	YES
AC output over-voltage/under-voltage protection	YES
AC output over-frequency /under-frequency protection	YES

AC output over-current protection	YES
AC output short circuit protection	YES
AC output over load protection	YES
Surge protection	YES
Anti-islanding protection	YES
<b>System Data</b>	
Max. Conversion efficiency	94%
Communication with BMS	CAN
Display	LCD touch screen
Display content	Battery voltage/current/dump energy; PV voltage/ current/ power/accumulative generation energy; wind turbine voltage/current/ power/accumulative generation energy; and grid, diesel or inverter output three phase voltage, current and frequency; Faults protection and so on.
Lightning protection	YES
Ambient temperature	-20~+40℃
Humidity	5%~95%,(Non-condensing)
Noice	≤65dB
Cooling method	Forced air cooling
Ingress protection(IP) rating	IP21 ( use indoors)

Max. operating altitude	4000 m (> 1000 m derating)	
W*H*D	The machine	810mm*1800mm*600mm
	Dump load	525mm*655mm*430mm
Weight	The machine	450kg
	Dump load	40kg