Venus

Residential Solar Power Storage Hybrid Inverter Venus Series

Venus 4000-S1~Venus 6000-S1

Hybrid energy storage inverter and photovoltaic inverter facilitates easy and fast installation.

As the switching time between on-grid and off-grid is less than 10 ms, the load is therefore continuously supplied.

There are four modes to be selected for various scenarios.

APP remote monitoring, simple maintenance, unlimited function expansion, and good battery compatibility make this product ease to use.

This product supports lead-acid, lithium battery, etc.

Built-in smart grid management meets the demand for grid dispatching.

Venus 4000-S1~Venus 6000-S1
Technical parameters

Technical parameters:	Venus 4000-S1	Venus 5000-S1	Venus 6000-S1
	Battery specifications		
Battery type	lithium ion battery, lead-acid battery		
Battery rated voltage	48 V		
Battery voltage range	42-58 V		
Battery capacity recommended	50-2000 Ah		
Maximum charging and discharging power	4000 W	5000 W	5000 W
Maximum charging current	100 A (settable)		
Maximum discharging current	100A (adjustable)		
Charging curve (lithium ion battery)	BMS		
Charging curve (lead-acid battery)	3-stage adaptive maintenance		
Depth of Discharge	lithium ion battery: 0-90% adjustable, lead-acid battery: 0-50% adjustable		
	Input (DC)		
Maximum panel input power recommended	6000 Wp	7500 Wp	9000 Wp
Maximum DC power of single channel MPPT	3500 W		
Maximum input voltage	600 V		
Start-up input voltage	100 V		
Rated input voltage	360 V		
MPPT voltage range	120 V- 580 V		
Full load DC voltage range	200 V-520 V	250 V-520 V	300 V-520 V
Number of independent MPPT	2		
Number of DC inputs	1/1		
Maximum input current	13 A/13 A		
Maximum short circuit current	18 A /18 A		
	Output (AC)		
Rated output power	4000 W	5000 W	6000 W
Maximum AC power	4400 VA	5500 VA	6000 VA
Maximum output current	20 A	25 A	27.3 A
Nominal grid voltage	L/N/PE, 220 VAC, 230 VAC, 240 VAC		
Nominal AC voltage range	180 VAC-276 VAC (according to local standard)		
Rated grid frequency	50 Hz/ 60 Hz		
Grid frequency range	45 Hz-55 Hz/54 Hz-66 Hz (according to local standard)		
Active power adjustable range	0~ 100%		
Total harmonic component (current)	<3%		
Power Factor	1 (+/-0.8 adjustable)		
	Off-grid output		
Maximum output power	4000 VA	5000 VA	5000 VA
Maximum output current	18.2	22.7	22.7
Peak output power, time	4800 VA,60 s	6000 VA,60 s	6000 VA,60 s
Nominal output voltage, frequency	220 V/230 V,50/60 Hz		
Voltage total harmonic distortion (@ linear load)	<3%		
Switching time	<10 ms		
	Efficiency		
Maximum efficiency	< 97.60%	< 97.80%	< 98.00%
European weighted efficiency	< 97.20%	< 97.30%	< 97.50%
Maximum charging and discharging efficiency of battery	< 94.00%		
MPPT efficiency	>99.9%		
	Protection		
Insulation impedance detection	available		
DC reverse connection protection	available		
Ground fault monitoring	available		
Over-current protection	available		
DC switch	available		
Battery soft start protection	available		
AFCI protection	optional		
Lightning protection	Class III		
	General parameters		
Ambient temperature range	-30 ~ + 60 ℃ (Rating reduction occurs when the ambient temperate rises above 45 ℃.)		
Stand-by loss	<10 W		
Topology	high frequency isolation		
Degrees of protection	IP65		
Relative Humidity range allowed	0~ 100%		
Communication	CAN 2.0/RS 485, Wi-Fi/GPRS (optional)		
Protection level	Class I		
Maximum altitude for product operation	<4000 m		
Connection mode of current sensor	external		
Noise	<29 dB		
Weight	27 kg		
Cooling mode	natural cooling		
Dimension (mm)	540*380*185		
Display	LCD & APP		
Warranty	5 years (extendable)		
	Standard		
EMC	EN 61000-6-1, EN 61000-6-3		
Safety regulations and standards	IEC62109-1,IEC62109-2		
Grid-connection standard	IEC61727，IEC62116,IEC-61683，VDE-AR-N 4105, VDE V 0124-100，AS4777		

Note: Technical parameters listed hereunder are for reference only. Actual parameters shall be subject to products shipped.