

Venus

Residential Solar Power Storage Hybrid Inverter Venus Series

Venus 3680-S1~Venus 6000-S1



ZONERGY



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 3680-S1~Venus 6000-S1 Technical parameters

Technical parameters:	Venus 3680-S1	Venus 4000-S1	Venus 4600-S1	Venus 5000-S1	Venus 6000-S1
Battery specifications					
Battery type	lithium ion battery, lead-acid battery				
Battery rated voltage	51.2 V				
Battery voltage range	42-60 V				
Battery capacity recommended	50-2000 Ah				
Maximum charging and discharging power	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	8000 W	9000 W	9000 W	9000 W	9000 W
Maximum input voltage	600 V				
Start-up input voltage	120 V				
Rated input voltage	360 V				
MPPT voltage range	100 V-550 V				
Full load DC voltage range	250 V-520 V				
Number of independent MPPT	2				
Number of DC inputs	1/1				
Maximum input current	16 A /16 A				
Maximum short circuit current	20 A /20 A				
Output (AC)					
Rated output power	3680 W	4000 W	4600 W	5000 W	6000 W
Maximum AC power	3680 W	4000 W	4600 W	5000 W	6000 W
Maximum output current	16 A	17.4 A	20 A	21.7 A	26 A
Nominal grid voltage	L/N/PE, 220Vac, 230Vac, 240Vac				
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	3680 W	4000 W	4600 W	5000 W	5000 W
Maximum output current	16 A	17.4 A	20 A	21.7 A	21.7 A
Peak output power, time	4416 W,60 s	4800 W,60 s	5520 W,60 s	6000 W,60 s	6000 W,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			≤ 94.50%		
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 °C (Rating reduction occurs when the ambient temperate rises above 45 °C.)				
Stand-by loss	<10 W				
Topology	high frequency isolation				
Degrees of protection	IP66				
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	<39 dB				
Weight	27 kg				
Cooling mode	natural cooling				
Dimension (mm)	540*450*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.