Alpha Hybrid Solar Inverter

3 Phase 20kW/30kW

SUNWOLF

solar manufacturers and wholesalers



Product Description:

The 3 Phase Hybrid Inverter is a high-capacity solution designed for demanding commercial and industrial applications. With its impressive efficiency of up to 98.4% and the ability to handle up to 150% PV input power, it delivers exceptional performance and reliability.

This inverter supports extensive battery configurations and offers advanced protection features, making it a robust choice for large-scale energy systems.



Key Features

- **Exceptional Efficiency:**

  Up to 98.4% efficiency for PV to AC and 98.0% for battery to AC.

- **High Power Capacity:**

  Handles up to 150% PV input power and offers continuous overload capacity of 110%.

- **Advanced Protection:**

  IP66 rated with optional AFCI and RSD for enhanced safety.

- **Flexible Battery Options:**

  Supports Lithium-ion and Lead-acid batteries with up to 2x50A charge/discharge current.

Cnr Borrowdale & Kingsmead Road
Lifestyle Mall | Borrowdale

www.sunwolf.org | sales@sunwolf.org | 0777 - 773565

Model	SW-INHV20K-H3	SW-INHV30K-H3
Efficiency		
Max. Efficiency (PV to AC)	98.2%	98.4%
Eur. Efficiency (PV to AC)	97.9%	
Max. Efficiency (BAT to AC)	98.0%	
Input (PV)		
Max. PV Configuration	200%	
Max. PV Input Power	30,000W	45,000W
Max. PV Voltage	1000V	
Start-up Voltage	150V	
MPPT Voltage Range	160V-950V	
Max. Input Current per MPPT	30A/30A	30A/30A/30A
Max. Short Circuit Current per MPPT	40A/40A	40A/40A/40A
String per MPPT	4 (2/2)	6 (2/2/2)
Nos. of MPPT	2	3
Input/Output (BAT)		
Battery Type	Lithium-ion/Lead-acid	
Nominal Battery Voltage	420V-800V	320V-800V
Battery Voltage Range	120V-800V	
Max. Charge/Discharge Current	50A/50A	2*50A/2*50A
Max. Charge/Discharge Power	24,000W/ 22,680W	30,000/ 34,000W
Output (Grid)		
Nominal AC Output Power	20,000W	30,000W
Max. AC Output Power	22,000VA	33,000VA
Max. AC Output Power (PF=1)	22,000W	33,000W
Max. AC Output Current	3*33.4A	3*50.1A
Max. Single Phase power	10,000W	11,000W
Max. Input Power	30,000W	45,000W
Max. Input Current	3*50A	3*75A
Nominal Grid Voltage	Three Phase 380V/400V/415V, 3W+N+PE	
Grid Voltage Range	277V-520V (Adjustable)	
Nominal Grid Frequency	50Hz/60Hz	
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)	
Power Factor	> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDI	<3% (Rated Power)	
Output (Back up)		
Nominal Output Power	20,000W	30,000W
Nominal Output Current	3*30.3A	3*45.5A
Max. Single Phase Power	10,000W	11,000kW
Peak Output Apparent Power (5min)	24,000VA	36,000VA
Peak Output Apparent Power (10s)	30,000VA	45,000VA
Nominal Output Voltage	Three Phase 380V/400V/415V, 3W+N+PE	
Nominal Output Frequency	50Hz/60Hz	
Transfer Time	<10ms	
THDV	＜3% @100% R Load	
Protection		
Protection Category	Class I	
DC Switch	Yes	
Anti-islanding Protection	Yes	
AC Overcurrent Protection	Yes	
DC/AC Overvoltage Protection	DC Type II, AC Type III	
AC Short Circuit Protection	Yes	
DC Reverse Protection	Yes	
Surge Arrester	DC Type II, AC Type II	
Insulation Resistance Detection	Yes	
Leakage Current Protection	Yes	
General		
Max. Operation Altitude	4000m (>2000m derating)	
Ingress Protection Degree	IP66	
Operating Temperature Range	-25℃~60℃ (>45℃ derating)	
Relative Humidity	0~100	
Cooling	Natural Cooling	Smart Fan Cooling
Mounting Method	Wall bracket	
Dimensions (W*H*D)	660mm*570mm*230mm	
Weight	45Kg	55Kg
PV Connection Way	MC4/H4	
HMI & COM		
Display	Bluetooth & APP + LED	
Communication Interface	RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN	
Certification		
Safety	IEC 62109-1&2	
Grid	VDE 4105, EN 50549-1, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002, AS 4777.2, C10/11, G98/G100, IEC 61727/62116	
Warranty	5 Years	

Remarks

- The range of output voltage and frequency may vary depending on different grid codes.
- Specifications are subject to change without advanced noticed.