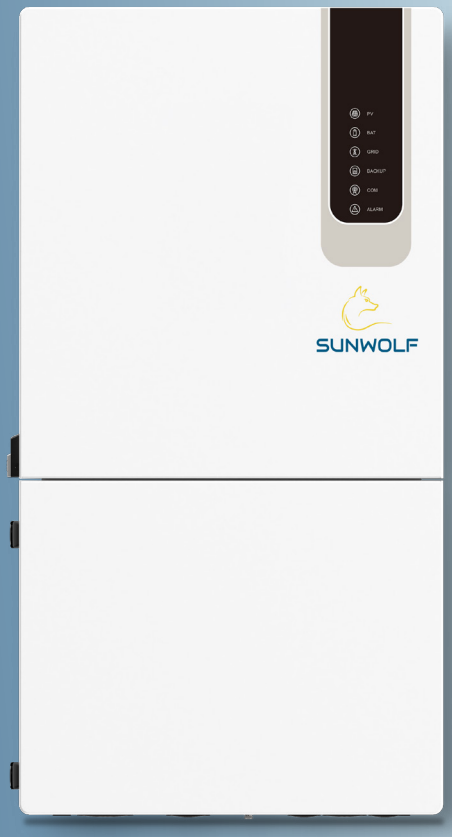
Alpha Hybrid Inverter

Single Phase 10kW

SUNWOLF

solar manufacturers and wholesalers





Product Description:

Single Phase Hybrid Inverter is engineered for high-performance solar energy systems requiring substantial power capacity. It features up to 200% PV oversizing capability and supports flexible battery configurations.

Ideal for large residential and commercial installations, this inverter ensures reliable power with continuous overload capacity and rapid backup transitions. It is equipped with intelligent maintenance features for streamlined operation and scalability.

Key Features

- **High Power Handling:**

  Allows up to 200% PV oversizing and supports up to 210A battery charge/discharge current.

- **Flexible Battery Support:**

  Compatible with 40-64V Lithium-ion or Lead-acid batteries.

- **Seamless Backup:**

  Provides continuous power and rapid backup transition in less than 10 milliseconds.

- **Scalable System:**

  Stackable up to 9 units for expanded capacity.

Cnr Borrowdale & Kingsmead Road
Lifestyle Mall | Borrowdale

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

Model	SW-IN48.10K-H
Efficiency	
Max. Efficiency (PV to AC)	98.0%
Max. Efficiency (BAT to AC)	94.5%
Input (PV)	
Max. PV Configuration	200%
Max. PV Input Power	15,000W
Max. PV Voltage	600V
Start-up Voltage	90V
MPPT Operating Voltage Range	70V-540V
Max. Input Current per MPPT	30A/22A/22A
Max. Short Circuit Current per MPPT	40A/30A/30A
String per MPPT	6 (2/2/2)
Nos. of MPPT	3
Input/Output (BAT)	
Battery Type	Lithium-ion/Lead-acid
Nominal Battery Voltage	48V
Battery Voltage Range	40V-64V
Max. Charge/Discharge Current	210A/210A
Max. Charge/Discharge Power	10,000W/10,000W
Output (Grid)	
Nominal AC Output Power	10,000W
Max. AC Output Apparent Power	11,000VA
Max. AC Output Power (PF=1)	11,000W
Max. AC Output Current	50A
Nominal Grid Voltage	Single Phase 220V/230/240V, L+N+PE
Grid Voltage Range	150V-300V (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	10,000W
Nominal Output Current	43.5A
Peak Output Apparent Power (1s)	20,000VA
Nominal Output Voltage	Single Phase 220V/230/240V, L+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
AFCI	Optional
Generator	Yes
General	
Max. Operation Altitude	4000m (>2000m Derating)
Ingress Protection Degree	IP65
Operating Temperature Range	-25℃~60℃ (>45℃ Derating)
Relative Humidity	0~100%
Cooling	Fan Cooling
Mounting	Wall bracket
Dimensions (W*H*D)	420mm*800mm*240mm
Weight	39Kg
PV Connection Way	Terminals
HMI & COM	
Display	Bluetooth & APP + LED
Communication Interface	RS485/CAN (for BMS), DRM/RS485 (for Meter), RS485 Optional: Wi-Fi/GPRS/LAN
Certification	
Safety	IEC 62109-1&2
Grid	IEC 61727/62116, AS 4777.2, NRS 097-2-1
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.