

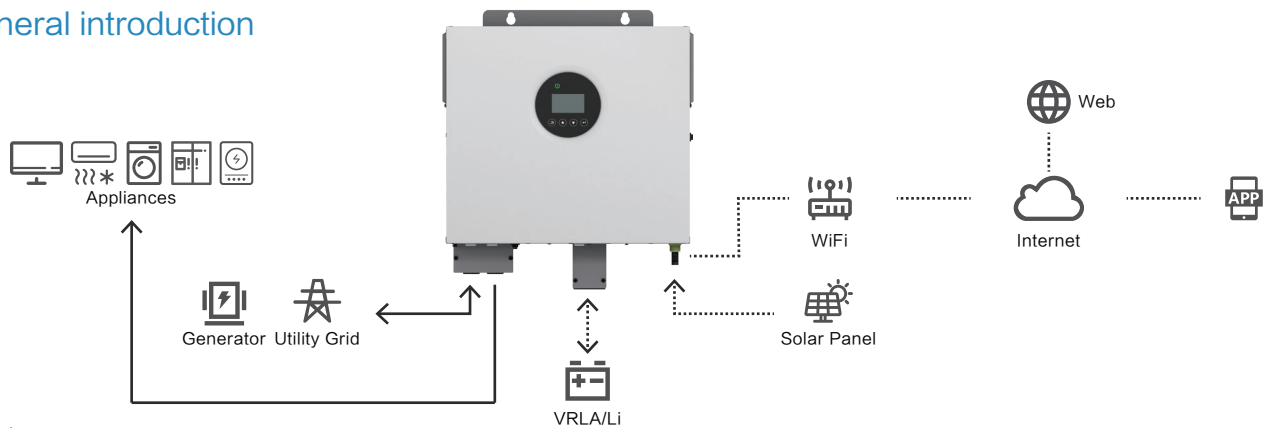
# Knight Series ▶▶

## Hybrid Solar Inverter

3.6kW/6kW



## General introduction



## Features

### ✓ Safety

- 6kV lightning protection
- DC – DC high frequency isolating converter (Battery)
- Waterproof PV terminal

### 🌿 Green

- Up to 93.5% efficiency
- Output power factor is 1.0
- Intelligent cooling fan control
- Low THDv

### 🔗 Reliable

- Widely input voltage of AC and PV
- Pure sine wave output
- Compatible with generator
- Built-in Intelligent temperature sensors
- Dust cleaning alarms and dust-proof kit

### ⚡ Fast charging

- PV and AC charging current is up to 120A
- Intelligent charging (Multiple charging modes)

### 👤 User-friendly

- Dot-matrix screen and physical button
- Built-in WiFi module (Optional)
- APP support (Optional)
- Built-in PV terminal for easy installation

### 🏠 Applications

- Support home appliances/office equipment/lighting equipment etc.
- Support lead-acid and lithium-ion battery
- Max. 6 units in parallel
- RS232/USB/Dry Contact

## Technical Specifications

Model	Knight 3600-24	Knight 3600-48	Knight 6000-48
<b>Input(AC)</b>			
Nominal Voltage	220/230/240Vac		
Selectable Voltage Range	170~280Vac (For Personal Computers) 90~280Vac (For Home Appliances)		
Frequency	50/60Hz (Auto Detection)		
Power Factor	>0.9		
AC Switch	Optional		
Generator Input	Support		
<b>PV String Input(DC)</b>			
Max PV Array Open Circuit Voltage Range	500Vdc		
Nominal Voltage	240Vdc		360Vdc
Start-up Voltage	120Vdc		
Initial Feeding Voltage	150Vdc		
MPPT Voltage Range	120Vdc~450Vdc		
Number of MPPT Trackers	1		
Max. PV Array Short Circuit Current	18A		27A
Maximum PV Input Power	4000W		6700W
DC Switch	Optional		
<b>AC Output</b>			
Nominal AC Output Power	3600W	3600W	6000W
Nominal AC Voltage	220/230/240Vac		
Output Voltage Range	184~264.5Vac or 195.5~253Vac (Selectable)		
AC Grid Frequency Range	50/60Hz ± 5Hz		
Max. Output Current	15.7A		26.1A
Power Factor(cos $\theta$ )	0.8leading-0.8lagging		
Battery Mode To Grid Efficiency(Peak)	93.5%		
<b>AC Output(Backup)</b>			
Nominal output Power	3600W / 3600VA	3600W / 3600VA	6000W / 6000VA
Nominal Voltage (Batt. Mode)	220 / 230(Default) / 240Vac ± 5%, User Settable		
Inverter Voltage Range (PV Mode Narrow)	184 - 264Vac		
Inverter Voltage Range (PV Mode Wide)	100V~264Vac		
Inverter Voltage Range (PV Mode Rated)	220 / 230(Default) / 240Vac ± 5%, User Settable		
Nominal Frequency (Hz)	50(Default) / 60, User Settable		
Transfer Time	10ms typical, 15ms max(For Personal Computers) / 20ms typical, 25ms max (For Home Appliances)		
Waveform	Pure sinewave		
Battery Mode To Backup Efficiency(Peak)	93.5%		
<b>Battery And Charge</b>			
Nominal Voltage(LiFePO4)	25.6V	51.2V	51.2V
Nominal Voltage(Lead Acid)	24V	48V	48V
Max. AC charge Current	100A	60A	100A
Max. Solar Charge Current	120A	60A	120A
Max. Charge Current(Solar + AC Charge Current)	120A ( User selectable )	60A ( User selectable )	120A ( User selectable )
<b>Interface &amp; Mechanical</b>			
Display	LCD & LED		
Parallel Function	6 units		
Communication Interface	RS232 / USB / Dry Contact / Optional:RS485 / CAN / WIFI		
Dimension (D*W*H)	134.0 × 427.5 × 460.8 mm		
Net Weight	11.7kg	11.8kg	13.4kg
<b>Protection</b>			
Anti-islanding Protection	Yes		
Output Over-current Protection	Yes		
PV Reverse Polarity Protection	Yes		
Ground Fault Circuit Interrupter	Yes		
Insulation Detection	Yes		
AC/DC Surge Protection	DC Type II; AC Type III		
<b>General Specifications</b>			
Operating Temperature	-10°C ~ 50°C		
Storage Temperature	-15°C ~ 60°C		
Relative Humidity	5%~ 95%, non-condensing		
Altitude	<3000m		
Protection Degree	IP21		
RoHS	Yes		
Certification & Standard	IEC / EN 62109-1&2; IEC / EN 61000-6-1&2&3&4; IEC / EN 61000-3-11; EN 61000-3-12		

1. Specifications are subject to change without prior notice
2. Data above are typical values for reference only, not as a basis for engineering design
3. Output load will not be derated if the working altitude is under 2000m