

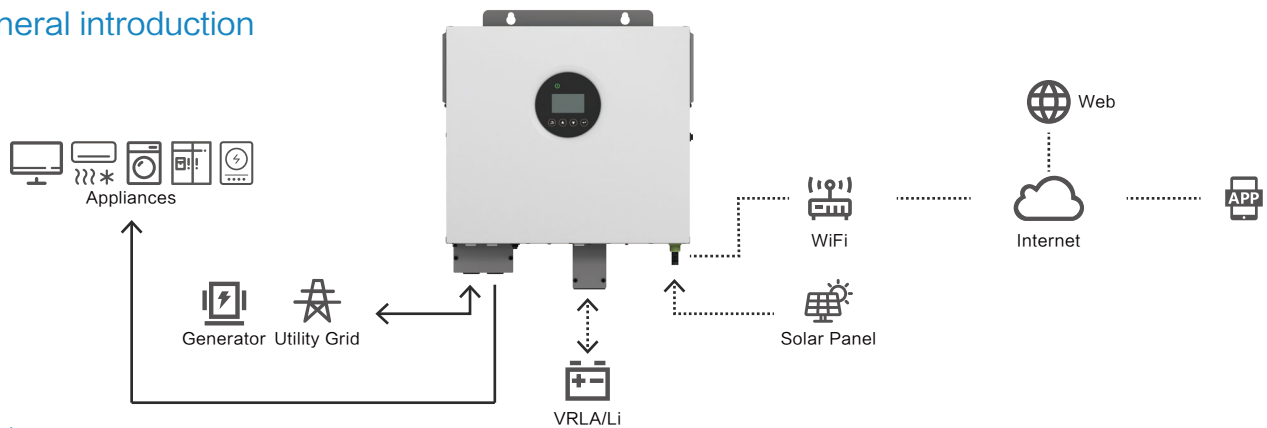
Knight Series ▶▶

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
Input(AC)				
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			
PV String Input(DC)				
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			
AC Output				
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 Θ)	0.8leading–0.8lagging			
Battery Mode To Grid Efficiency(Peak)	93.5%			
AC Output(Backup)				
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%			
Battery And Charge				
Nominal Votage(LiFePO4)	25.6V		51.2V	51.2V
Nominal Votage(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)
Interface & Mechanical				
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
Protection				
Anti-islanding Protection	Yes			
Output Over-current Protection	Yes			
PV Rerverse Polarity Protection	Yes			
Ground Fault Circuit Interrupter	Yes			
Insulation Detection	Yes			
AC/DC Surge Protection	DC Type II; AC Type III			
General Specifications				
Operating Temperature	–10℃ ~ 50℃			
Storage Temperature	–15℃ ~ 60℃			
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