

# Knight Series **NEW**

Hybrid / 3.6 kW / 6 kW



## Safety

- ▶ 6kV lightning protection
- ▶ DC - DC high frequency isolating Converter (Battery)
- ▶ Waterproof PV terminal

## Fast charging

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

## Green

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

## User-friendly

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

## 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

## Applications

- ▶ Support home appliances / office equipment / lighting equipment etc.
- ▶ Support lead-acid and lithium-ion battery
- ▶ Max. 6 units in parallel
- ▶ RS-232 / USB / Dry Contact

Model	Knighth 3600-24	Knighth 3600-48	Knighth 6000-48
<b>Input (AC)</b>			
Nominal Voltage	230 Vac		
Selectable Voltage Range	170 ~ 280 Vac (For Personal Computers) 90 ~ 280 Vac (For Home Appliances)		
Frequency	50 Hz / 60 Hz (Auto Detection)		
Power Factor	> 0.9		
Generator Input	Support		
<b>PV String Input (DC)</b>			
Max PV Array Open Circuit Voltage Range	500 Vdc		
Nominal Voltage	240 Vdc	240 Vdc	360 Vdc
Start-up Voltage	120 Vdc		
Initial Feeding Voltage	150 Vdc		
MPPT Voltage Range	120 Vdc ~ 450 Vdc		
Number of MPPT Trackers	1		
Maximum input Current	18 A	18 A	27 A
Nominal PV Input Power	4000 W	4000 W	6700 W
<b>AC Output</b>			
Nominal Output Power	3600 W	3600 W	6000 W
Nominal AC Voltage	230 Vac (Default), 150 ~ 280 Vac user settable		
Output Voltage Range	184 ~ 264.5 Vac or 195.5 ~ 253 Vac (Selectable)		
AC Grid Frequency Range	50 Hz / 60 Hz (±5 Hz)		
Max. Output Current	15.7 A	15.7 A	26.1 A
Power Factor	0.8leading-0.8lagging		
Battery Mode To Grid Efficiency (Peak)	93.5%		
<b>AC Output (Backup)</b>			
Nominal Output Power	3600 W / 3600 VA	3600 W / 3600 V	6000 W / 6000 VA
Nominal Voltage (Batt. Mode)	230 Vac ± 5%		
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		
<b>Battery &amp; Charge</b>			
Nominal Voltage (LiFePO4)	25.6 Vdc	51.2 Vdc	51.2 Vdc
Nominal Voltage (Lead Acid)	24 Vdc	48 Vdc	48 Vdc
Max. AC Charge Current	120 A	60 A	120 A
Max. Solar Charge Current	120 A	60 A	120 A
Max. Charge Current (Solar + AC Charge Current)	120 A (User selectable)	60 A (User selectable)	120 A (User selectable)
<b>Interface &amp; Mechanical</b>			
Display	LCD & LED		
Parallel Function	6 units		
Communication Interface	RS-232 / USB / Dry Contact / Optional: RS-485 / CAN / WIFI		
Dimensions (W x H x D)	134.0 x 427.5 x 460.8 mm		
Net Weight	11.7 kg	11.8 kg	13.4 kg
<b>Protection</b>			
Anti-islanding Protection	Yes		
Output Over-current 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		
Max. Operating Altitude	3000 m (> 2000 m Derating)		
Protection Degree	IP21		
RoHS	Yes		
Certificate & Standard	IEC62109-1&2; EN/IEC62920:2017+A1:2021; EN55011:2016+A2:2021; STA-2A; IEC62116; IEC61727; IEC61683; IEC60068		

1) Specifications are subject to change without prior notice