

# Specifications

## HI3K-6K Hybrid Inverter

**Model: HI3K-6K**

**Description: 3K-6K Hybrid Inverter**

**Rev.: V00**

**Release Date: 2022-10-16**

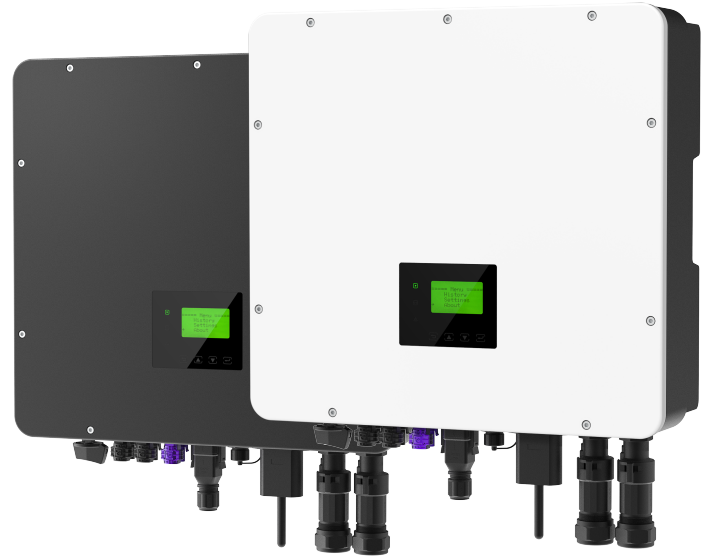
# HI3K-6K Hybrid Inverter

**SOSEN**  
INNOVATION



## Hybrid Inverter

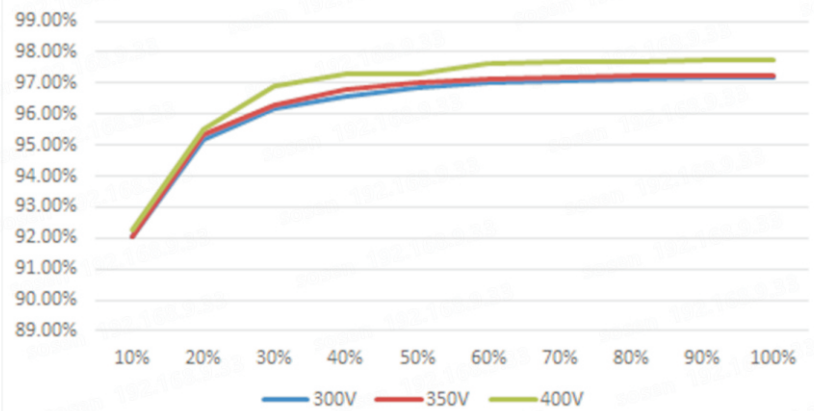
Smart  
Single-Phase  
Energy Storage Controller



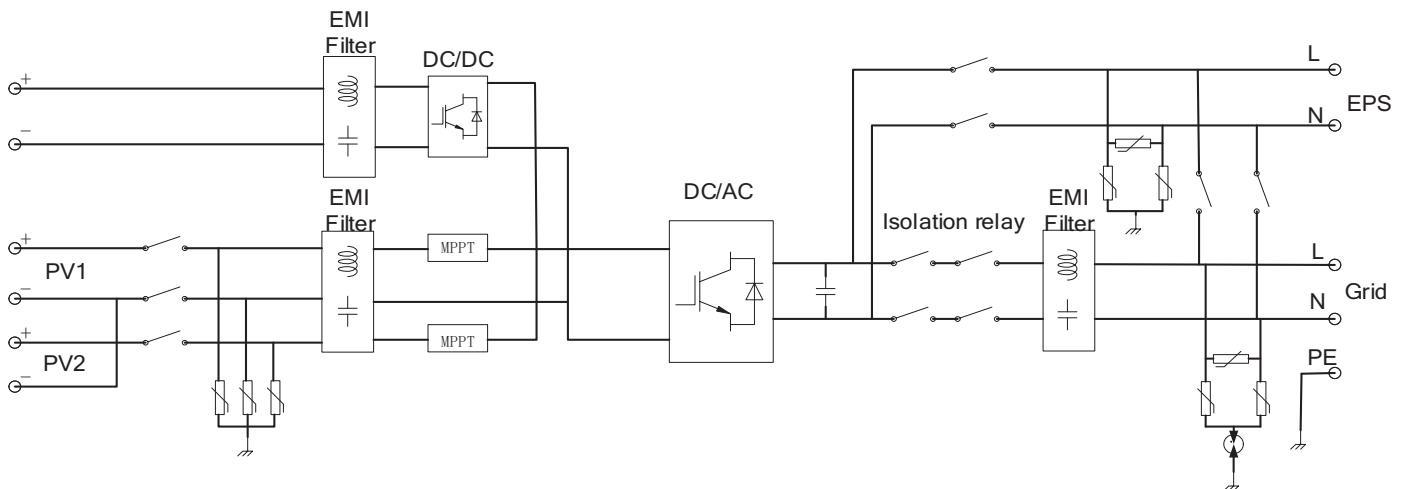
### Features:

- Intelligent energy management
- Multiple operating modes are available
- High efficiency
- Wide range of battery voltage
- Compatible with on grid and off grid
- High speed on/off grid switching
- High Sealed design With IP65

Efficiency Curve



### Circuit Diagram



# HI3K-6K Hybrid Inverter

## Electrical performance specification

### PV-IN

Parameter	HI3K0S450WEU	HI3K7S450WEU	HI4K6S450WEU	HI5K0S450WEU	HI6K0S450WEU
Max.recommended DC Power	3900W	4680W	5980W	6500W	7800W
Max.DC Voltage	600V				
Typical DC Operating Voltage	360V				
PV Input Current (input A/input B)	A:12.5A/B:12.5A				
Max. PV Isc (input A/input B)	A:15A/B:15A				
MPPT Voltage Range	80V-550V	80V-550V	80V-550V	80V-550V	80V-550V
Start-up Voltage	75V	75V	75V	75V	75V
No. of MPP Trackers	2	2	2	2	2
Strings per MPP Tracker	1	1	1	1	1
DC Disconnection Switch	optional				

### Battery

Battery Type	Li-Ion
Battery Voltage range	85V-450V
Recommended Battery Voltage	300V
Max.charge/discharge Power	6000W
Max.charge Current	35A
Max.discharge Current	35A
Communication interfaces	CAN/ RS485
Reverse Connect Protection	YES

# HI3K-6K Hybrid Inverter

## AC INPUT&OUTPUT

Parameter	HI3K0S450WEU	HI3K7S450WEU	HI4K6S450WEU	HI5K0S450WEU	HI6K0S450WEU
Normal AC power	3000VA+4000VA (bypass)	3680VA+4000VA (bypass)	4600VA+5000VA (bypass)	4999VA+5000VA (bypass)	6000VA+6000VA (bypass)
Max. apparent AC power	3000/3300+4000 (bypass)	3680/4048+4000 (bypass)	4600+5000 (bypass)	5500+5000 (bypass)	6600+6000 (bypass)
Rated Grid Voltage (AC voltage range)	220V/230V/240V (180V to 270V)				
Rated Grid Frequency	50Hz/60Hz				
Typical AC Current	13A+17.4A (bypass)	16A+17.4A (bypass)	20A+21.7A (bypass)	21.7A+21.7A (bypass)	26.1A+26.1A (bypass)
Max. AC Current	14.4A+21.7A (bypass)	16A+21.7A (bypass)	21A+26.0A (bypass)	21.7A+26.0A (bypass)	26.1A+26.1A (bypass)
Displacement Power Factor	0.8 leading to 0.8 lagging				
Total Harmonic Distortion (THDi, rated power)	<3%				

## EPS OUTPUT(WITH BATTERY)

EPS MAX Power	5000VA	5000VA	6000VA	6000VA	6600VA
EPS Rated Power	4000VA	4000VA	5000VA	5000VA	6000VA
EPS Rated Voltage(AC), Frequency	230V, 50Hz/60Hz				
EPS Rated Current	17.4A	17.4A	21.7A	21.7A	26.1A
EPS Peak Power	7200W(<10s)				
Switch Time	<20ms				
Total Harmonic Distortion (THDv, linear Load)	<2%				
Compatible with the Generator	Optional				

# HI3K-6K Hybrid Inverter

## EFFICIENCY

Parameter	HI3K0S450WEU	HI3K7S450WEU	HI4K6S450WEU	HI5K0S450WEU	HI6K0S450WEU
MPPT Efficiency	99.90%	99.90%	99.90%	99.90%	99.90%
Euro-efficiency	97.00%	97.00%	97.00%	97.00%	97.00%
Max. efficiency	97.80%	97.80%	97.80%	97.80%	97.80%
Max. Battery Charge Efficiency (PV to BAT)(@full load)	98.50%	98.50%	98.50%	98.50%	98.50%
Max. Battery Discharge Efficiency (BAT to AC)(@full load)	97.00%	97.00%	97.00%	97.00%	97.00%

## POWER CONSUMPTION

Standby Consumption	<10W
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## STANDARD

Safety	EN/IEC 62109-1/2, EN/IEC 60529, EN/IEC 62477-1
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3, EN IEC 61000-3-12, EN IEC 61000-3-11
Cetification	VDE-AR-N 4105, UNE 217002, NTS TYPEA, G99, AS/NZS 4777.2 and so on

## ENVIRONMENT LIMIT

Ingress Protection	IP65
Operating Temperature Range	-20..... +60°C (derating at +45°C)
Humidity	0~100% (non-condensing)
Altitude	<4000m
Storage Temperature	-20..... +60°C
Noise Emission(typical)	40
Over Voltage Category	III(AC side), II(PV side)

# HI3K-6K Hybrid Inverter

## EFFICIENCY

### Parameter

HI3K0S450WEU

HI3K7S450WEU

HI4K6S450WEU

HI5K0S450WEU

HI6K0S450WEU

## DIMENSION AND WEIGHT

Demensions(WxHxD)	470mmx440mmx175mm
Weight	25kg
Cooling Mode	Natural Cooling
Topology	Transformerless
Communication	Meter, WIFI(optional), DRM, CT,RS485,CAN
LCD Display	Backlight 16*4 Character
Button	Capacitive Touch Sense
Standard Warranty	Standard 10 Years

\* More technical characteristics are available on demand and customized.

\*The grid feed in power for VDE-AR-N 4105 and NRS097-2-1 is limited 4600VA, for AS/NZS 4777.2 is limited 4950VA & 21.7A.

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## Revision History

edition	Description of changes	Date of change	remarks
V00	Initial Issue	2022/10/16	