

# THREE PHASE HYBRID INVERTER

## NS 12/15/20/25/30KHB

Application: Residential & Small-Medium C&I Use



### EXCELLENT PERFORMANCE

- Maximum efficiency of 98.4% and battery efficiency of 98.0%
- Maximum 150% PV input power, supporting continuous overload capacity of 110% and unbalanced output of 150%
- Maximum battery charge/discharge current of 2\*75A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international renowned brands
- IP66 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections, with optional AFCI



### INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings

Model	NS 12KHB-D3	NS 15KHB-D3	NS 20KHB-D3	NS2 5KHB-T3	NS3 0KHB-T3
<b>Efficiency</b>					
Max. Efficiency (PV to AC)	98.2%			98.4%	
Eur. Efficiency (PV to AC)	97.9%				
Max. Efficiency (BAT to AC)	98.0%				
<b>Input (PV)</b>					
Max. PV Input Power	18,000W	22,500W	30,000W	37,500W	45,000W
Max. PV Voltage	1000V				
Start-up Voltage	150V				
MPPT Voltage Range	160V-950V				
Max. Input Current per MPPT	32A/32A			32A/32A/32A	
Max. Short Circuit Current per MPPT	40A/40A			40A/40A/40A	
String per MPPT	2/2			2/2/2	
Nos. of MPPT	2			3	
<b>Input/Output (BAT)</b>					
Battery Type	Lithium-ion/Lead-acid				
Battery Voltage Range at Rated Power	230V-800V	285V-800V	380V-800V	190V-800V	230V-800V
Battery Voltage Range	120V-800V				
Max. Charge/Discharge Current	60A/60A			2*75A/2*75A	
Max. Charge/Discharge Power	18,000W/ 14,400W	22,500W/ 18,000W	30,000W/ 24,000W	37,500W/ 30,000W	45,000/ 36,000W
<b>Output (Grid)</b>					
Nominal AC Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Max. AC Output Power	13,200VA	16,500VA	22,000VA	27,500VA	33,000VA
Max. AC Output Power (PF=1)	13,200W	16,500W	22,000W	27,500W	33,000W
Max. AC Output Current	3*20A	3*25A	3*33.3A	3*41.7A	3*50A
Max. Single Phase power	10,000VA	10,000VA	10,000VA	11,000VA	11,000VA
Max. Input Power	36,000VA	40,000VA		45,000VA	
Max. Continuous AC Pass Through	63A			75A	
Nominal Grid Voltage	380V/400V/415V, 3W+N+PE				
Grid Voltage Range	277V-520V (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)				
<b>Output (Back up)</b>					
Nominal Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Nominal Output Current	3*18.2A	3*22.7A	3*30.3A	3*37.9A	3*45.5A
Peak Output Apparent Power (5min)	14,400VA	18,000VA	24,000VA	30,000VA	36,000VA
Peak Output Apparent Power (10s)	18,000VA	22,500VA	30,000VA	37,500VA	45,000VA
Nominal Output Voltage	380V/400V/415V, 3W+N+PE				
Nominal Output Frequency	50Hz/60Hz				
Transfer Time	<10ms (typical)				
THDV	<3% @100% R Load				
<b>Protection</b>					
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				
<b>General</b>					
Max. Operation Altitude	4000m (>2000m derating)				
Ingress Protection Degree	IP66				
Operating Temperature Range	-25 C ~60 C (>45 C derating)				
Relative Humidity	0-100%				
Cooling	Natural Cooling		Smart Fan Cooling		
Mounting Method	Wall bracket				
Dimensions (W*H*D)	660mm*596mm*235mm				
Weight	45Kg			55Kg	
PV Connection Way	MC4/H4				
<b>HMI &amp; COM</b>					
Display	Bluetooth & APP + LED, LCD (optional)				
Communication Interface	RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi/LAN, 3*DO, 2*DI				
<b>Certification</b>					
Safety	IEC 62109-1&2				
EMC	IEC/EN 61000				
Grid	VDE 4105, EN 50549-1, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002, AS 4777.2, C10/11, IEC 61727/62116				
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 notice.

# DATA LOGGER V1000+



- Built-in web server for LAN monitoring
- 12 Months of data storage
- Automatic network clock synchronization
- RS485 interface for inverter connection
- Standard RJ45 patch cable
- Power export control supported

Model	V1000+
Connection	Inverter: RS485 Router: RJ45
Access Number	40pcs
Transmission Maximum Distance	1200m
Display	LED
<b>Input</b>	
Input Voltage	Input: AC 90V-250V 50/60Hz Output: DC 5V
Static Current Consumption	1A
<b>General</b>	
Operating Temperature	-25 C ~55 C
Humidity	10%~95% relative humidity, no condensation
IP Rating	IP20
Dimension (L*W*H)	118mm*78mm*29mm
<b>Certification</b>	
Safety	FCC, CE, ROHS

# WIFI COMMUNICATION MODULE SE WIFI-R



- Easy plug-and-play installation for quick and convenient setup
- Preferred monitoring solution for residential use

Model	SE WIFI-R
Connection	TTL
Standards	802.11 b/g/n
Transmission Maximum Distance	100m Unobstructed environment
Setting	APP / WEB
<b>Input</b>	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
<b>General</b>	
Operating Temperature	-25 C ~60 C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*92mm
<b>Certification</b>	
Safety	FCC / CE-RED / SRRC

# LAN COMMUNICATION MODULE SE LAN-R



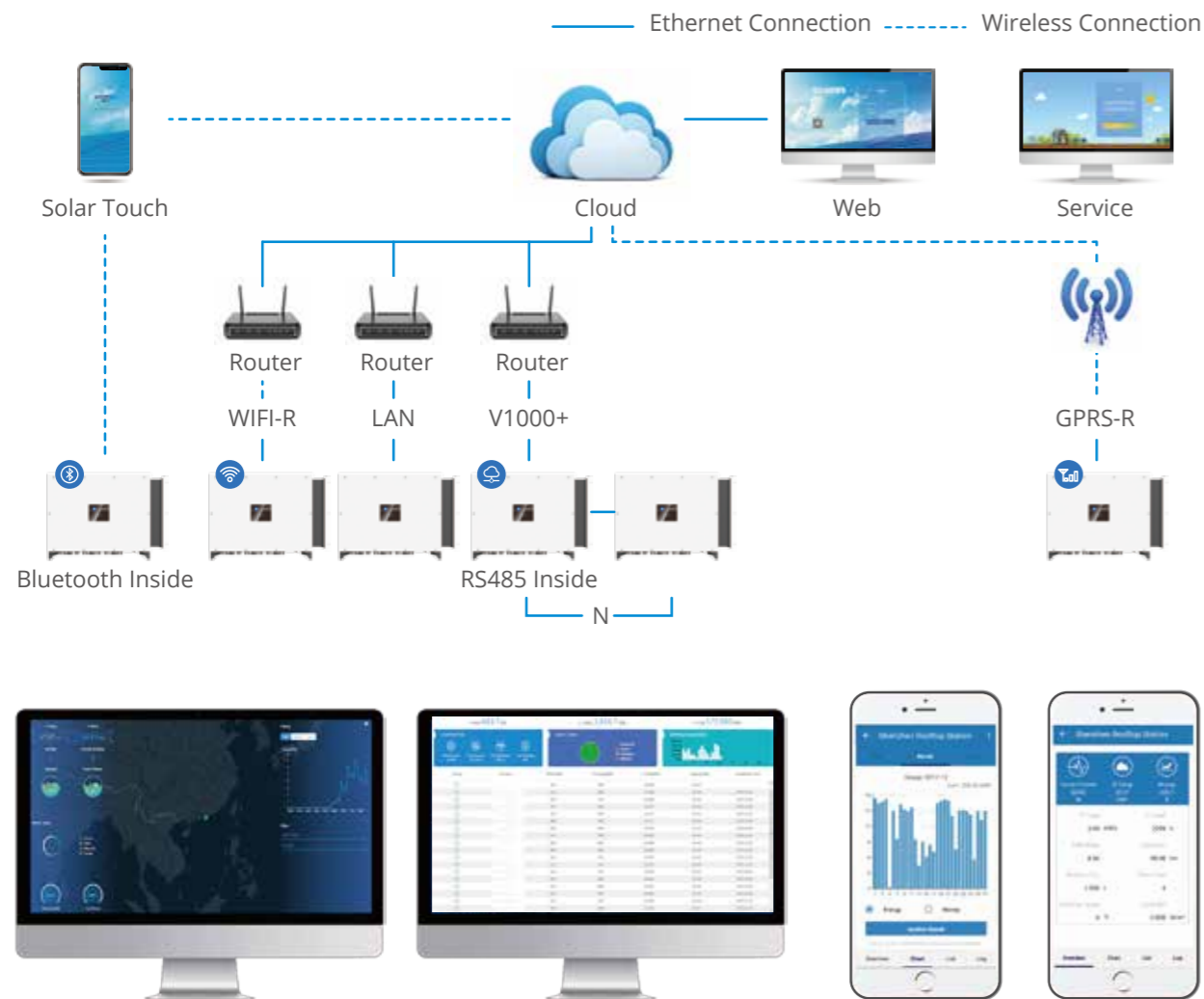
- Easy plug-and-play installation for quick and convenient setup
- Mobile internet monitoring, ideal for rural and remote areas

Model	SE LAN-R
Connection	TTL
Standards	IEEE 802.3
Transmission Maximum Distance	100m CAT5
Setting	APP
<b>Input</b>	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
<b>General</b>	
Operating Temperature	-25 C ~60 C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*117mm
<b>Certification</b>	
Safety	FCC, CE-RED, SRRC

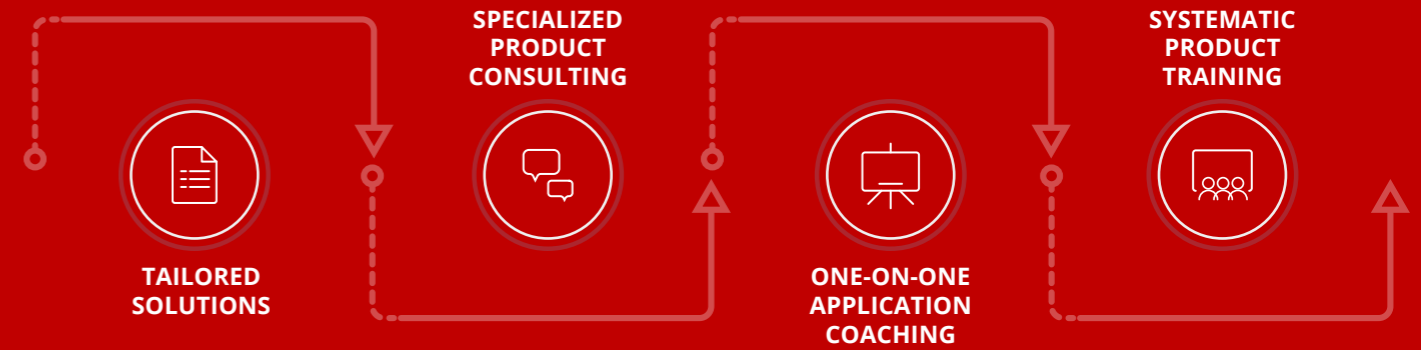
# SMART SOLAR CLOUD



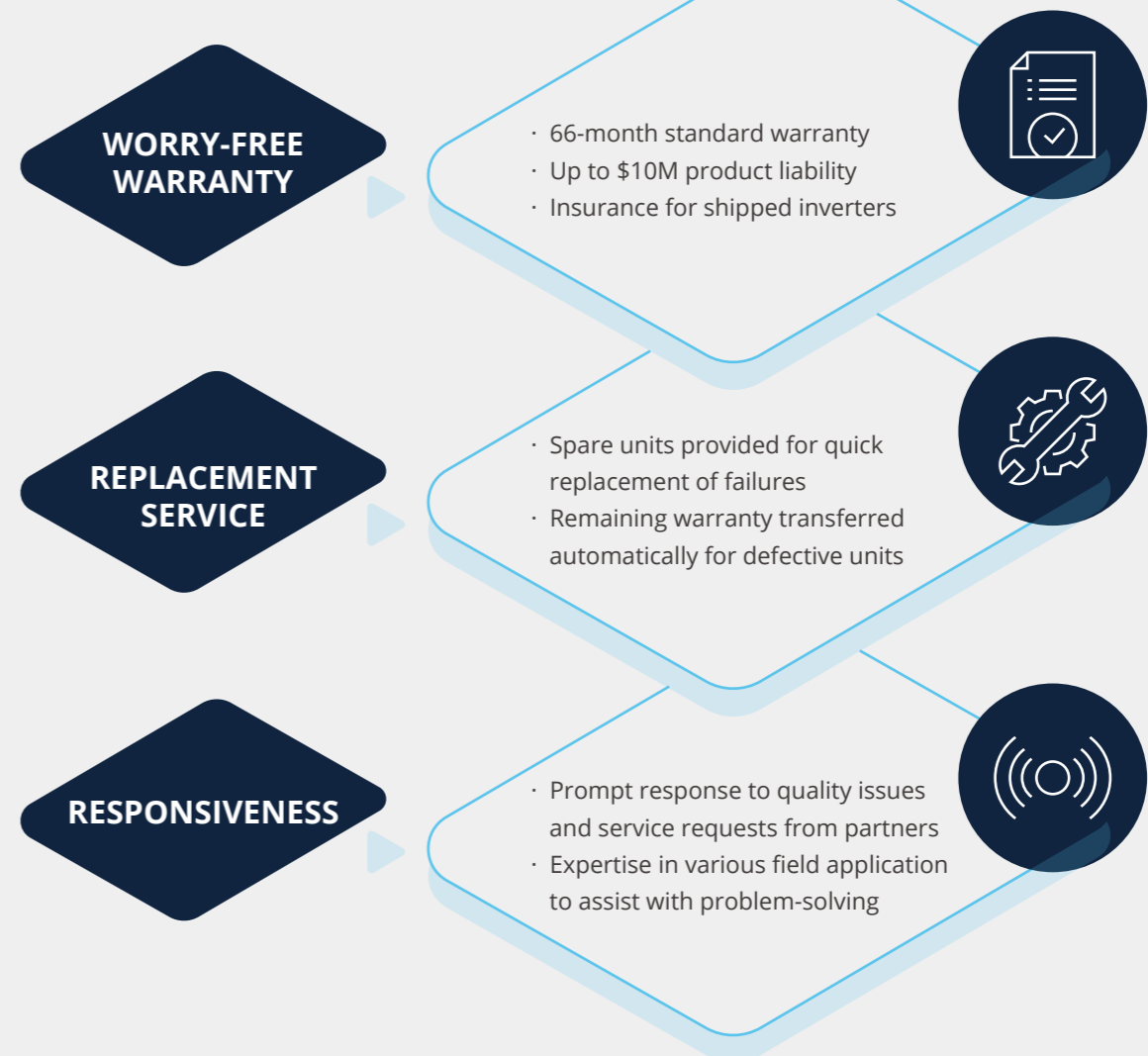
- Suitable for residential/commercial/storage applications
- Cloud services provided from Europe, the Americas, Singapore, India and China
- Monitoring the operational status of inverters, generators, communication modules, energy storage within the system
- Full visibility into energy consumption and production processes
- Remote diagnosis and detection technology with operational data visualization and intelligent analysis



# PRE-SALES SUPPORT



# AFTER SALE SERVICE



## GLOBAL NETWORK



## VISION & MISSION

Become the technology and market leader in the new energy industry through continuous innovation, distinctive and highly competitive products and services.

## MARKETING PROMOTION



## APPLICATION REFERENCES



FOSHAN, CHINA  
4.2MW



SHANTOU, CHINA  
2MW



HUNAN, CHINA  
6MW



VIETNAM  
200kW



TAICHUNG CITY, TAIWAN  
1.5MW



CHIAYI COUNTY, TAIWAN  
20MW