

TIER 1
BloombergNEF

Hopewind is ranked as
Tier 1 Solar Inverter Maker by BNEF

HOPEWIND

Stock Code: SSE-603063



PV String Inverters & ESS

Brochure

“ Company Profile

Shenzhen Hopewind Electric Co., Ltd. (Stock Code: 603063) focuses on the R&D, manufacturing, sales and services of renewable energy & variable frequency drive products, including products for wind power generation, photovoltaic generation, energy storage, hydrogen production power supply, power quality and variable frequency drive. Furthermore, Hopewind owns integrated independent R&D and testing platforms of high-power power electrical equipment and monitoring systems. Through innovation in technology and service, Hopewind continuously creates value for customers, and has become one of China's most competitive enterprises in the renewable energy field.

In the field of photovoltaic (PV) grid and off-grid power generation, Hopewind offers competitive overall solutions, including hybrid inverters, string inverters, central inverters, distributed inverters, and power converter systems.*

String PV inverters cater to various applications, including residential, commercial and industrial (C&I), and utility sectors. For residential use, single-phase models range from 3kW to 10kW, complemented by DC 1100V three-phase models from 8kW to 33kW. In the commercial and industrial space, medium-power models are available from 25kW to 50kW, while high-power options range from 60kW to 150kW. For utility applications, DC 1500V models are offered in capacities from 250kW to 385kW. At the same time, we also provide the corresponding WiFi modules, as well as the data collector modules in large-scale power plants to meet the requirement of the system remote monitoring, operation and maintenance management.

Utility ESS solution includes 1500V string power converter system in capacities of 145kW and 250kW, turnkey PCS station, complete energy storage systems and other products. Provide competitive overall solutions for common AC or common DC energy storage systems.

*Due to varying certification requirements across different regions, the range of products available for sale may differ slightly. Please refer to the specific circumstances in each market.

”



Headquarter · Shenzhen

5 R&D and manufacturing bases: Shenzhen, Suzhou, Xi'an, Heyuan, Wuhan

30+ Global service bases: Deployed worldwide, and provides comprehensive services for global customers

» Contents



Green Residential Solution

- P04 3-10kW Single-phase PV String Inverter
- P06 8-33kW Three-phase PV String Inverter

Green C&I Solution

- P08 36-50kW Three-phase PV String Inverter
- P10 60-150kW Three-phase PV String Inverter

Green Utility Solution

- P16 250-385kW Three-phase PV String Inverter
- P20 MV Transformer Station
- P22 Power Conversion System
- P24 PCS Turnkey Station

P26 Smart Data Collector

P28 Power Controller

P29 Data Logger



HSSP3-10K
-G01



FEATURES



Efficient

- Compatible with high power PV modules and bifacial modules
- Wider MPPT range
- Up to 1.5 times of DC/AC ratio



User Friendly

- Plug and play
- Fanless design, low noise
- Smart LED indicators



Safe and Reliable

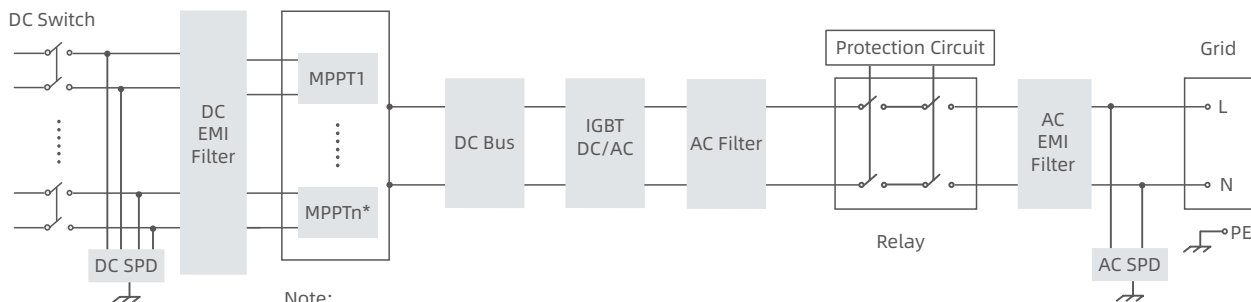
- Built-in type II DC/AC SPD
- Intelligent PV string monitoring
- IP66



Intelligent

- Easy commissioning & real-time monitoring via APP
- Remote firmware upgrade

TOPOLOGICAL GRAPH



Note:
n*=1: HSSP3K-G01, HSSP4K-G01; n*=2: HSSP5~10K-G01.

PARAMETERS

Model	HSSP3K-G01	HSSP4K-G01	HSSP5K-G01	HSSP6K-G01	HSSP8K-G01	HSSP10K-G01
DC Input						
Max. Input Voltage	600 V					
Starting Voltage	55 V					
MPPT Voltage Range	55~550 V					
MPPT Range Full Load	170~520 V	210~520 V	200~520 V	235~520 V	210~520 V	260~520 V
Max. Input Current Per MPPT	20 A	22 A	20 A / 20 A		26 A / 20 A	
Max. Short-Circuit Current	30 A	33 A	30 A / 30 A		39 A / 30 A	
Number of DC Inputs	1	2	1 / 1		2 / 1	
Number of MPP Trackers	1		2			
AC Output						
Rated Output Power	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW
Max. Output Power	3.3 kW	4.4 kW	5.5 kW	6.6 kW	8.8 kW	11 kW
Rated Output Voltage	220 V / 230 V (L + N + PE)					
Operating Voltage Range	165~275 V					
Rated Output Current	13.6 A	18.2 A	22.7 A	27.3 A	36.4 A	45.5 A
Max. Output Current	15 A	20 A	25 A	30 A	40 A	50 A
Rated Grid Frequency	50 Hz / 60 Hz					
Power Factor	>0.99 (0.8 leading~0.8 lagging)					
Harmonic (THDi)	<3% (at rated power)					
Efficiency						
Max. Efficiency	97.80%					
European Efficiency	96.80%		97.00%		97.10%	
Protection						
Surge Protection	DC type II / AC type II					
Insulation Impedance Detection	Yes					
Residual Leakage Current Detection	Yes					
PV String Fault Detection	Yes					
PV Reverse Polarity Protection	Yes					
Anti-Islanding Protection	Yes					
Output Overcurrent Protection	Yes					
DC Switch	Yes					
Zero Export Function	Yes					
Arc Fault Circuit Interrupter (AFCI)	Optional					
General Parameters						
Dimensions (W × H × D)	425 × 400 × 146 mm		425 × 400 × 167 mm		512 × 438 × 177 mm	
Weight	≤8 kg		≤12 kg		≤16 kg	
Ingress Protection	IP66					
Operating Temperature Range	-25~+60℃					
Cooling System	Natural cooling					
Topology	Transformerless					
Operating Altitude	4000 m (>3000 m derating)					
Display	LED, WLAN+APP					
Communication	Wi-Fi					
DC Connection Type	MC4 (4~6 mm²)					
AC Connection Type	Plug-in connector					

hopeSun
8-33KTL



FEATURES



High-efficiency

- 2 MPPTs with Max. efficiency 98.60%
- 20A input current, compatible with 210mm PV modules
- High precision & intelligent string detection



Reliability

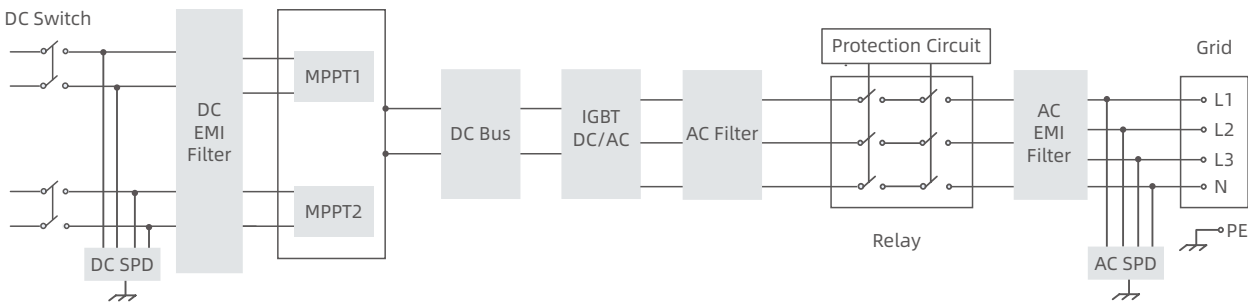
- Under/over voltage protection
- Anti-islanding protection
- Built-in Type II DC&AC SPD



User Friendly

- Built-in zero export function interface
- Touch free commissioning via APP
- Remote firmware updates

TOPOLOGICAL GRAPH



PARAMETERS

Model	hopeSun 8KTL	hopeSun 10KTL	hopeSun 12KTL	hopeSun 15KTL	hopeSun 17KTL	hopeSun 20KTL	hopeSun 22KTL	hopeSun 25KTL	hopeSun 30KTL	hopeSun 33KTL	
DC Input											
Max. PV Input Power	12 kW	15 kW	18 kW	22.5 kW	25.5 kW	30 kW	33 kW	37.5 kW	45 kW	49.5 kW	
Max. Input Voltage	1100 V										
Starting Voltage	180 V										
MPPT Voltage Range	200~1000 V										
MPPT Range Full Load	370~850 V			450~850 V			425~850 V				
Max. Input Current Per MPPT	20 A / 20 A			26 A / 20 A			30 A / 30 A		40 A / 40 A		
Max. Short-circuit Current	30 A / 30 A			39 A / 30 A			45 A / 45 A		60 A / 60 A		
Number of DC Inputs	1 / 1			2 / 1			2 / 2			3 / 3	
Number of MPP Trackers	2										
AC Output											
Rated Output Power	8 kW	10 kW	12 kW	15 kW	17 kW	20 kW	22 kW	25 kW	30 kW	33 kW	
Max. Output Power	8.8 kW	11 kW	13.2 kW	16.5 kW	18.7 kW	22 kW	24.2 kW	27.5 kW	33 kW	36.3 kW	
Rated Output Voltage	230 V / 400 V (3P + N + PE)										
Operating Voltage Range	300~520 V										
Rated Output Current	11.6 A	14.5 A	17.4 A	21.7 A	24.6 A	28.9 A	31.8 A	36.1 A	43.5 A	47.6 A	
Max. Output Current	12.7 A	16.0 A	19.1 A	23.9 A	27.0 A	31.8 A	35.0 A	39.7 A	47.8 A	52.4 A	
Rated Grid Frequency	50 Hz / 60 Hz										
Power Factor	>0.99 (0.8 leading~0.8 lagging)										
Harmonic (THDi)	<3% (at rated power)										
Efficiency											
Max. Efficiency	98.60%										
European Efficiency	98.10%							98.30%			
Protection											
Surge Protection	DC type II / AC type II										
Insulation Impedance Detection	Yes										
Residual Leakage Current Detection	Yes										
PV String Fault Detection	Yes										
PV Reverse Polarity Protection	Yes										
Anti-Islanding Protection	Yes										
Output Overcurrent Protection	Yes										
DC Switch	Yes										
Zero Export Function	Yes										
General Parameters											
Dimensions (W × H × D)	380 × 400 × 247 mm					380 × 450 × 247 mm					
Weight	≤22 kg					≤25 kg		≤30 kg	≤35 kg		
Protection Degree	IP65										
Operating Temperature Range	-40~+60℃										
Cooling System	Natural cooling			Smart air cooling							
Topology	Transformerless										
Operating Altitude	4000 m (>3000 m derating)										
Display	LED, WLAN + APP										
Communication	Wi-Fi										
DC Connection Type	MC4 (4~6 mm²)										
AC Connection Type	SC terminal					Tube type terminal		OT/ DT terminal			

hopeSun
36-50KTL



FEATURES

High-efficiency

- 2 MPPTs with Max. efficiency 98.60%
- 20A input current, compatible with 210mm PV modules
- High precision & intelligent string detection

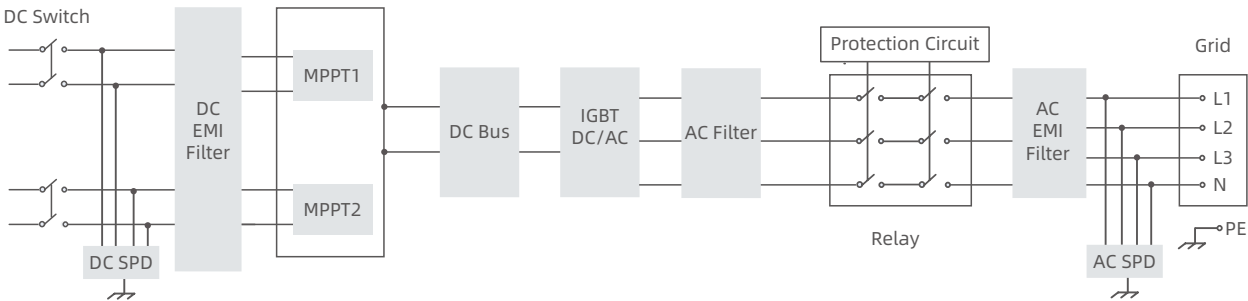
Reliability

- Smart air cooling
- Built-in Type II DC&AC SPD

User Friendly

- Built-in zero export function interface
- Touch free commissioning via APP
- Compatible with Al and Cu AC cable

TOPOLOGICAL GRAPH



PARAMETERS

Model	hopeSun 36KTL	hopeSun 40KTL	hopeSun 50KTL
DC Input			
Max. PV Input Power	54 kW	60 kW	75 kW
Max. Input Voltage	1100 V		
Starting Voltage	180 V		
MPPT Voltage Range	200~1000 V		
MPPT Range Full Load	375~850 V		450~850 V
Max. Input Current Per MPPT	45 A / 45 A	54 A / 54 A	60 A / 60 A
Max. Short-circuit Current	67.5 A / 67.5 A	81 A / 81 A	90 A / 90 A
Number of DC Inputs	3 / 3	5 / 4	
Number of MPP Trackers	2		
AC Output			
Rated Output Power	36 kW	40 kW	50 kW
Max. Output Power	39.6 kW	44 kW	55 kW
Rated Output Voltage	230 V / 400 V (3P + N + PE)		
Operating Voltage Range	300~520 V		
Rated Output Current	52.0 A	57.7 A	72.2 A
Max. Output Current	57.2 A	64 A	80 A
Rated Grid Frequency	50 Hz / 60 Hz		
Power Factor	>0.99 (0.8 leading~0.8 lagging)		
Harmonic (THDi)	<3% (at rated power)		
Efficiency			
Max. Efficiency	98.60%		
European Efficiency	98.30%		
Protection			
Surge Protection	DC type II / AC type II		
Insulation Impedance Detection	Yes		
Residual Leakage Current Detection	Yes		
PV String Fault Detection	Yes		
PV Reverse Polarity Protection	Yes		
Anti-Islanding Protection	Yes		
Output Overcurrent Protection	Yes		
DC Switch	Yes		
Zero Export Function	Yes		
General Parameters			
Dimensions (W × H × D)	520 × 520 × 265 mm		
Weight	≤44 kg		
Protection Degree	IP65		
Operating Temperature	-40~+60°C		
Cooling System	Smart air cooling		
Topology	Transformerless		
Operating Altitude	4000 m (>3000 m derating)		
Display	LED, WLAN + APP		
Communication	RS485 / Wi-Fi		
DC Connection Type	MC4 (4~6 mm ²)		
AC Connection Type	OT / DT terminal		

hopeSun
60-110KTL



FEATURES

High-efficiency

- 4 MPPTs with Max. efficiency 98.60%
- 20A input current, compatible with 210mm PV modules
- Night SVG function (optional)

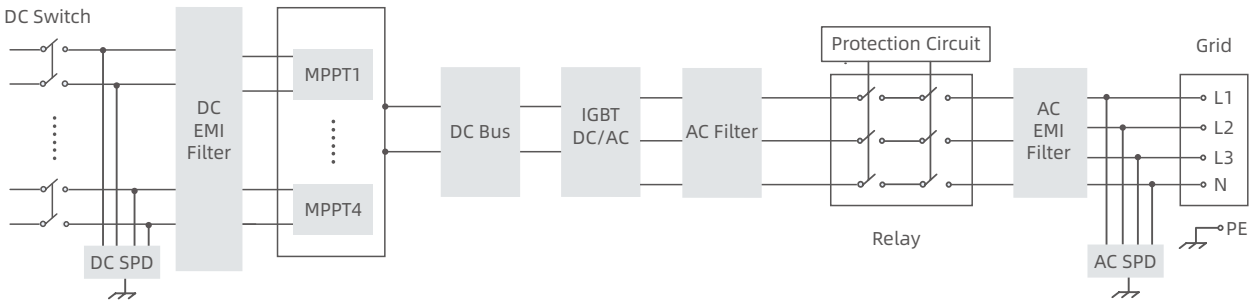
Reliability

- Smart air cooling
- Built-in Type II DC&AC SPD
- Built-in PID recovery function (optional)

User Friendly

- Built-in zero export function interface
- Touch free commissioning via APP
- AC and DC redundant power supply

TOPOLOGICAL GRAPH



PARAMETERS

Model	hopeSun 60KTL	hopeSun 70KTL	hopeSun 75KTL	hopeSun 100KTL	hopeSun 110KTL
DC Input					
Max. PV Input Power	90 kW	105 kW	112.5 kW	150 kW	165 kW
Max. Input Voltage	1100 V				
Starting Voltage	180 V				
MPPT Voltage Range	200~1000 V				
MPPT Range Full Load	520~850 V			550~850 V	
Max. Input Current Per MPPT	45 A / 45 A / 45 A / 45 A			65 A / 65 A / 65 A / 65 A	
Max. Short-circuit Current	60 A / 60 A / 60 A / 60 A			100 A / 100 A / 100 A / 100 A	
Number of DC Inputs	3 / 3 / 3 / 3		4 / 3 / 3 / 4		5 / 5 / 5 / 5
Number of MPP Trackers	4				
AC Output					
Rated Output Power	60 kW	70 kW	75 kW	100 kW	110 kW
Max. Output Power	66 kW	77 kW	82.5 kW	110 kW	121 kW
Rated Output Voltage	230 V / 400 V (3P + N + PE)				
Operating Voltage Range	300~520 V				
Rated Output Current	86.6 A	101.0 A	108.3 A	144.3 A	158.8 A
Max. Output Current	95 A	111 A	119 A	158.8 A	174.6 A
Rated Grid Frequency	50 Hz / 60 Hz				
Power Factor	>0.99 (0.8 leading~0.8 lagging)			>0.99 (0.9 leading~0.9 lagging)	
Harmonic (THDi)	<3% (at rated power)				
Efficiency					
Max. Efficiency	98.50%			98.60%	
European Efficiency	98.20%			98.30%	
Protection					
Surge Protection	DC type II / AC type II				
Insulation Impedance Detection	Yes				
Residual Leakage Current Detection	Yes				
PV String Fault Detection	Yes				
PV Reverse Polarity Protection	Yes				
Anti-Islanding Protection	Yes				
Output Overcurrent Protection	Yes				
DC Switch	Yes				
Zero Export Function	/			Yes	
General Parameters					
Dimensions (W × H × D) ^①	705 × 650 × 297 mm			800 × 670 × 330 mm	
Weight	≤75 kg			≤89 kg	
Protection Degree	IP65				
Operating Temperature Range	-40~+60℃				
Cooling System	Smart air cooling				
Topology	Transformerless				
Operating Altitude	4000 m (>3000 m derating)				
Display	LED, WLAN + APP				
Communication	RS485 / Wi-Fi				
DC Connection Type	MC4 (4~6 mm ²)				
AC Connection Type	OT / DT terminal				

① The dimension does not contain hangers, handles and other components. Please refer to the User Manual for detailed dimensions.

HSNV60/70/75/
100/110K-G02



FEATURES

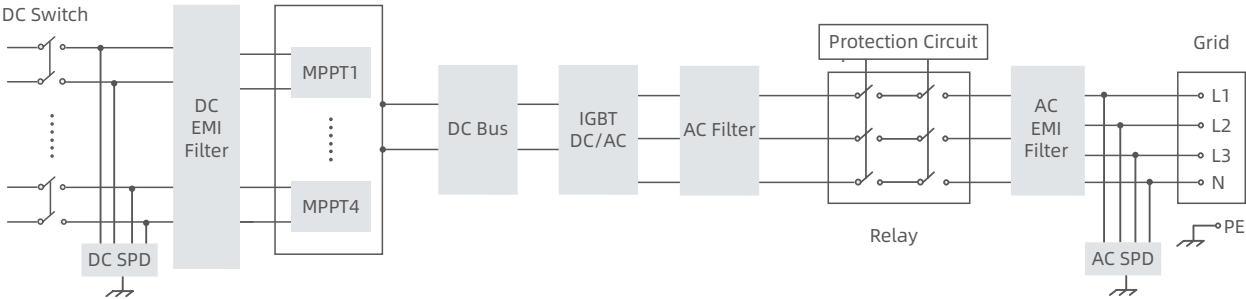
-  **Efficient**

 - 4 MPPTs with Max. efficiency of 98.50%
 - 110% AC overloading
 - Up to 20A of MPPT current input to support 210mm & bifacial PV modules
-  **User Friendly**

 - Built-in zero export function interface
 - Supports country grid code preset
 - 24/7 monitoring & remote firmware upgrade
 - Near-end commissioning via APP
-  **Reliable**

 - High precisely & intelligent string detection
 - DC&AC SPD and DC&AC terminal temperature detection for extra safety
 - Wide AC voltage range for unstable grid
 - Built-in PID recovery module and many other optional functions

TOPOLOGICAL GRAPH



PARAMETERS

Model	HSNV60K-G02	HSNV70K-G02	HSNV75K-G02	HSNV100K-G02	HSNV110K-G02
DC Input					
Max. Input Voltage	1100 V				
Starting Voltage	155 V				
MPPT Voltage Range	200~1000 V				
Max. Current Per MPPT	65 A				
Max. Short-circuit Current Per MPPT	100 A				
Number of DC Inputs	4 × 4			4 × 5	
Number of MPP Trackers	4				
AC Output					
Rated Output Power	60 kW	70 kW	75 kW	100 kW	110 kW
Max. Output Power	66 kW	77 kW	82.5 kW	110 kW	121 kW
Rated Output Voltage	230 V / 400 V (3P + N + PE)				
Operating Voltage Range	300~520 V				
Rated Output Current	86.6 A	101.0 A	108.3 A	144.3 A	158.8 A
Max. Output Current	95.3 A	111.1 A	119.1 A	158.8 A	174.7 A
Rated Grid Frequency	50 Hz / 60 Hz				
Power Factor	>0.99 (0.8 leading~0.8 lagging)				
Harmonic (THDi)	<3% (at rated power)				
Efficiency					
Max. Efficiency	98.50%				
European Efficiency	98.20%				
Protection					
Surge Protection	DC type II, AC type II				
PV Reverse Polarity Protection	Yes				
Insulation Impedance Detection	Yes				
Residual Leakage Current Detection	Yes				
Output Overcurrent Protection	Yes				
Anti-Islanding Protection	Yes				
I/V Curve Scanning	Yes				
Zero Export Function	Yes				
PV String Monitoring	Yes				
DC&AC Terminal Temperature Detection	Yes				
DC Switch	Yes				
Optional	PID Recovery, SVG, RSD (Tigo)				
General Parameters					
Dimensions (W × H × D)	953 × 657 × 351 mm				
Weight	≤85 kg				
Ingress Protection	IP66				
Operating Temperature Range	-25~+60°C				
Cooling System	Smart air cooling				
Anti-corrosion	C5 (optional)				
Topology	Transformerless				
Operating Altitude	4000 m (>3000 m derating)				
Display	LED, Wi-Fi + APP				
Communication	RS485 / Wi-Fi, PLC (optional)				
DC Connection Type	MC4 (4~6 mm²)				
AC Connection Type	OT / DT terminal (≤240 mm²)				
Standard Compliance (More Available Upon Request)					
Certification	IEC 62109, IEC 61000, IEC 62920, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 50549-1, EN 50549-2				

Note: The contents of the preliminary version are parameters for planned development and do not constitute a commitment to product performance.

HSNV150K
-G01



FEATURES

Efficient Power Generation

- 6 MPPTs is adaptable to complex environment, maximizes power generation
- MPPT current of 65A, fully compatible with 180/210 modules
- Supports full-load operation at 45°C , minimizes power generation losses
- Supports PID recovery function, enhances system power genration

Economical and Eco-friendly

- Supports Wi-Fi and PLC communication, ensures low construction costs
- Supports up to 400mm² of aluminum wire connections, reduces cable costs
- Higher capacity ratio, reduces LCOE (Levelized Cost of Electricity)

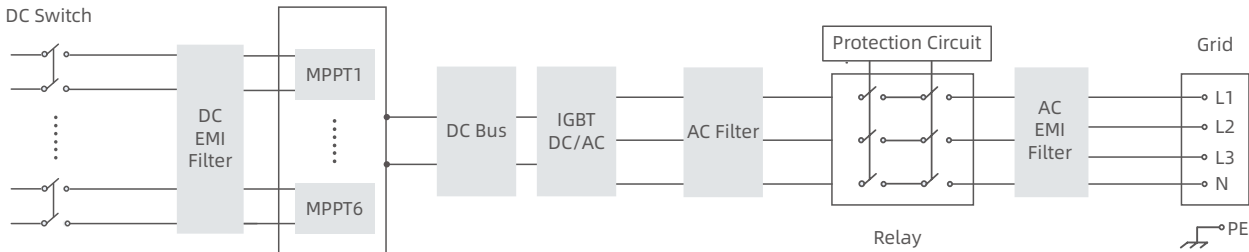
Safe and Reliable

- IP66 ingress protection, a strong environmental adaptability
- Built-in AC/DC SPD for comprehensive lightning protection
- Equipped with intelligent DC disconnection functions for higher safety
- Featuring temperature detection for both AC and DC terminals, enhances safety and reliability

Smart and User-friendly

- High-precision intelligent string detection, smart IV curve scanning, and accurate fault identification
- Equipped with HVRT/LVRT function, strong adaptability to weak grid with SCR technology

TOPOLOGICAL GRAPH



PARAMETERS

Model	HSNV150K-G01
DC Input	
Max. Input Voltage	1100 V
Starting Voltage	200 V
MPPT Voltage Range	200~1000 V
MPPT Range Full Load	550~850 V
Max. Input Current Per MPPT	65 A
Max. Short-circuit Current Per MPPT	97.5 A
Max. Number of DC Input	4 × 6
Number of MPPTs	6
AC Output	
Rated Output Power	150 kW
Max. Output Apparent Power	165 kVA
Rated Output Voltage	400 V (3P + PE)
Rated Voltage Range	300~480 V
Rated Output Current	216.5 A
Max. Output Current	238.2 A
Rated Frequency / Frequency Adaptation Range	50 Hz / 60 Hz, 45~55 Hz / 55~65 Hz
Power Factor	0.8 leading~0.8 lagging
Harmonic (THDi)	< 3%
Efficiency	
Max. Efficiency	98.80%
European Efficiency	98.10%
Protection	
Surge Protection	DC type II / AC type II
Insulation Impedance Detection	Yes
Residual Leakage Current Detection	Yes
PV String Fault Detection	Yes
PV Reverse Polarity Protection	Yes
Anti-islanding Protection	Yes
Zero Export Function	Yes
Output Overcurrent Protection	Yes
Output Short-circuit Protection	Yes
DC Switch	Yes
Optional	IV Curve Scanning, PID
General Parameters	
Dimensions (W × H × D)	1132 × 847 × 385 mm
Weight	≤110 kg
Ingress Protection	IP66
Operating Temperature	-40~+60°C (>45°C derating)
Cooling System	Smart air cooling
Storage Temperature	-40~+70°C
Humidity	0~100% (non-condensation)
Topology	Transformerless
Operating Altitude	4000 m
Display	LED indicator + APP
Communication	RS485 / PLC / Wi-Fi
DC Connection Type	MC4 (4~6 mm ²)
AC Connection Type	OT / DT terminal (≤400 mm ²)

Note: The contents of the preliminary version are parameters for planned development and do not constitute a commitment to product performance.

hopeSunHV
250KTL



FEATURES



High-efficiency

- 12 MPPTs with Max. efficiency 99.01%
- Compatible with 500Wp + bifacial modules
- Highly-precise intelligent string detection



Reliable

- Built-in Type II DC SPD & AC SPD
- Built-in PID recovery function
- Compatible in harsh environmental conditions



User Friendly

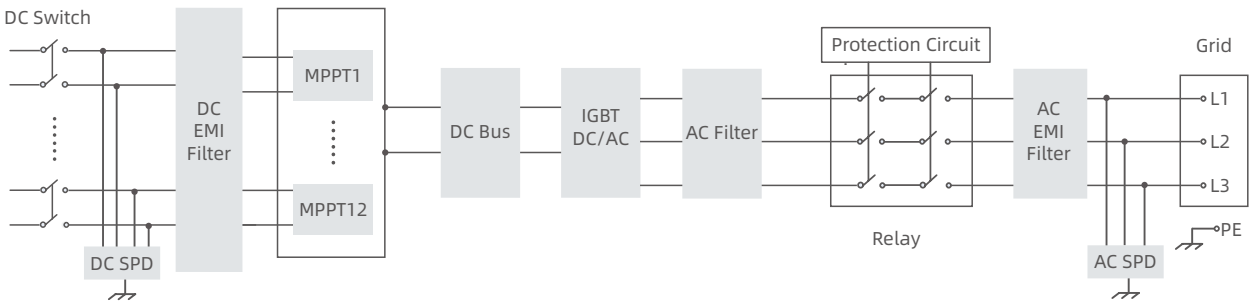
- Active and reactive power regulation
- Compatible with weak grid situation
- Remote firmware upgrade



Economy Friendly

- Compatible with Aluminium cable
- PLC communication to reduce cost
- Night SVG function (optional)

TOPOLOGICAL GRAPH



PARAMETERS

Model	hopeSunHV 250KTL
DC Input	
Max. PV Input Power	375 kW
Max. Input Voltage	1500 V
Starting Voltage	500 V
MPPT Voltage Range	500~1500 V
MPPT Range Full Load	820~1320 V
Max. Input Current Per MPPT	12 × 30 A
Max. Short-circuit Current	12 × 45 A
Number of DC Inputs	12 × 2
Number of MPP Trackers	12
AC Output	
Rated Output Power	250 kW
Max. Output Power	255 kW
Rated Output Voltage	800 V (3P + PE)
Operating Voltage Range	680~880 V
Rated Output Current	180.4 A
Max. Output Current	184 A
Rated Grid Frequency	50 Hz / 60 Hz
Power Factor	>0.99 (0.8 leading~0.8 lagging)
Harmonic (THDi)	<3% (at rated power)
Efficiency	
Max. Efficiency	99.01%
European Efficiency	98.55%
Protection	
Surge Protection	DC type II / AC type II
Insulation Impedance Detection	Yes
Residual Leakage Current Detection	Yes
PV String Fault Detection	Yes
PV Reverse Polarity Protection	Yes
Anti-Islanding Protection	Yes
Output Overcurrent Protection	Yes
DC Switch	Yes
General Parameters	
Dimensions (W × H × D)	1090 × 809 × 337 mm
Weight	≤115 kg
Protection Degree	IP66
Operating Temperature Range	-25~+60°C
Cooling System	Smart air cooling
Standby Power Consumption	<10 W
Topology	Transformerless
Operating Altitude	4000 m (>3000 m derating)
Display	LED indicator
Communication	RS485 / PLC
DC Connection Type	MC4 (4~6 mm ²)
AC Connection Type	OT / DT terminal

The highest power string inverter among industry

HSHV320/330/
350/385K
-G01



FEATURES



Efficient

- 8 MPPTs adapts to complex conditions
- 60A MPPT current, compatible with all types modules
- Full power operation at high temperature of 45°C (385K@40°C)
- Advanced SIC design, better efficiency & life time



Intelligent Friendly

- Intelligent I-V scanning to accurately identify abnormal strings
- Support SVG function, SCR weak grid adaptability
- Integrated with Aux. switch, initial debugging at any time
- Support Intelligent fan reverse dust removal



Reliable

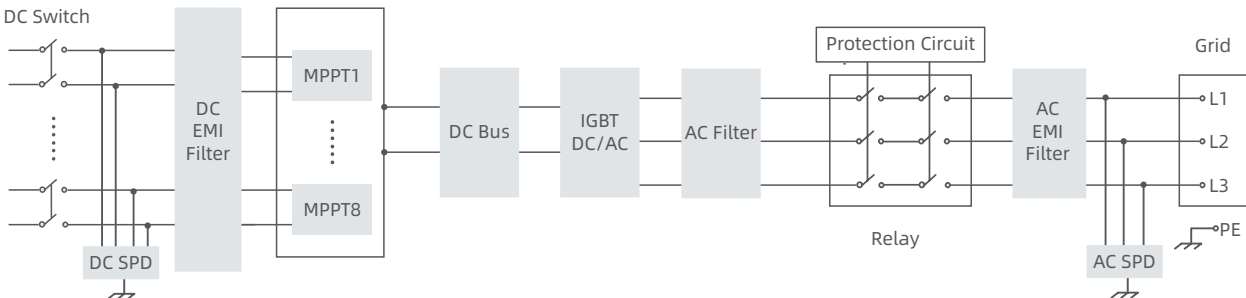
- IP66, C5 anti-corrosion for harsh environment
- AFCI (optional), DC&AC terminal temperature protection with smart DC switch
- Explosion relief valve for on-site personal safety



Economy Friendly

- Wi-Fi/PLC communication to reduce wiring costs
- Compatible with Aluminium AC cable up to 400mm²
- Supports Dual-AC cable output for better installation
- PID recovery/Anti-PID function, more energy, less main-tenance

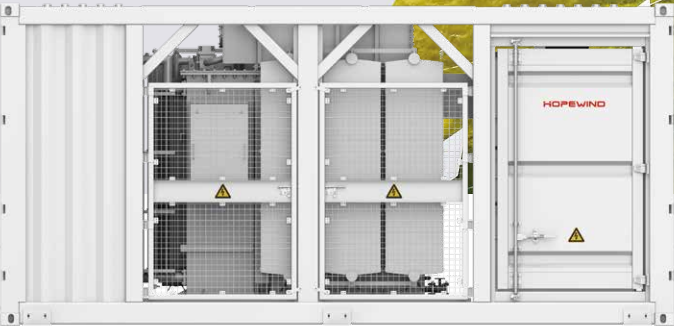
TOPOLOGICAL GRAPH



PARAMETERS

Model	HSHV320K-G01	HSHV330K-G01	HSHV350K-G01	HSHV385K-G01
DC Input				
Max. Input Voltage	1500 V			
Starting Voltage	550 V			
MPPT Voltage Range	500~1500 V			
MPPT Range Full Load	860~1300 V			
Max. Input Current Per MPPT	60 A			
Max. Short-circuit Current	90 A			
Number of DC Inputs	8 × 4			
Number of MPP Trackers	8			
AC Output				
Rated Output Power	320 kW	330 kW	350 kW	385 kW
Max. Output Power	320 kW	330 kW	350 kW	385 kW
Rated Output Voltage	800 V (3P + PE)			
Operating Voltage Range	640~920 V			
Rated Output Current	230.9 A	238.2 A	252.6 A	277.9 A
Max. Output Current	230.9 A	238.2 A	252.6 A	277.9 A
Rated Grid Frequency	50 Hz / 60 Hz			
Power Factor	>0.99 (0.8 leading~0.8 lagging)			
Harmonic (THDi)	<3% (at rated power)			
Efficiency				
Max. Efficiency	99.01%			
European Efficiency	98.70%			
Protection				
Surge Protection	DC type II / AC type II			
Insulation Impedance Detection	Yes			
Residual Leakage Current Detection	Yes			
PV String Fault Detection	Yes			
PV Reverse Polarity Protection	Yes			
Anti-Islanding Protection	Yes			
Output Overcurrent Protection	Yes			
DC Switch	Yes			
DC&AC Terminal Temperature Protection	Yes			
Intelligent Fan Reverse Function	Yes			
PID Recovery	Yes			
SVG Function	Yes			
Optional	AFCI, anti-PID			
General Parameters				
Dimensions (W × H × D)	1135 × 919 × 416 mm			
Weight	≤135 kg			
Protection Degree	IP66			
Anti-corrosion Degree	C5			
Operating Temperature Range	-25~+60℃			
Cooling System	Smart air cooling			
Topology	Transformerless			
Operating Altitude	4000 m (>3000 m derating)			4000 m (>2000 m derating)
Display	LED indicator, Wi-Fi / APP			
Communication	RS485 / PLC			
DC Connection Type	MC4 (4~6 mm²)			
AC Connection Type	OT / DT terminal (≤400 mm²)			
Standard Compliance (More Available Upon Request)				
Certification	IEC 62109, IEC 61000, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 62920, IEC 63027, EN 50530, EN 50549-1, EN 50549-2, CEA, MEA (385K-G01), PEA (385K-G01)			

HPMVS Series
3000/6000/9000



BRIEF INTRODUCTION

Hopewind MV Transformer Station integrates LV panel, Step-up Transformer, RMU and other auxiliaries to a 20-foot HC container, convert LV AC power to MV AC power and inject to grid system. The integrated and cost effective solution is ideal for easy transportation and quick installation.

FEATURES



Cost-Saving

- Easy transportation with standard container design
- High efficiency transformer & lower self-consumption for higher yields



Integrated and Convenient

- Prefabricated and Pre-tested
- Plug-and-play installation, no internal cabling needed onsite



Safety & Reliability

- Type-tested components of reliable quality
- The highest IP level in the market and C4 anti-corrosion, adaptable to harsh environments



Easy O&M

- LV panel, transformer and RMU real-time monitoring and remote control, without walk-in operation
- Integrated modular design simplifying maintenance

PARAMETERS

Model	HPMVS-3000		HPMVS-6000	HPMVS-9000
Input				
Available Inverters	HSHV385K			
No. of Inverters	9	18	24	
AC Power @40°C	3465 kVA	6930 kVA	9240 kVA	
LV Switches	MCCB (400 A / 800 Vac / 3P, 9pcs)	MCCB (400 A / 800 Vac / 3P, 18pcs)	MCCB (400 A / 800 Vac / 3P, 24pcs)	
	ACB (4000 A / 800 Vac / 3P, 1pc)	ACB (4000 A / 800 Vac / 3P, 2pcs)	ACB (4000 A / 800 Vac / 3P, 2pcs)	
Rated Input Voltage	800V			
Output				
Rated Output Voltage	10~35 kV			
Rated Frequency	50 Hz / 60 Hz			
Transformer Type	Oil-immersed, fully sealed, Dy11	Oil-immersed, fully sealed, Dy11y11		
Transformer Tapping	±2 × 2.5%			
Transformer Oil Type	Mineral oil (PCB free)			
Transformer Cooling Type	ONAN			
Transformer Min. Peak Efficiency	99% / Tier1 / Tier2 (optional)			
Rmu Type	SF6 gas insulated, DCV or CCV			
Impedance (HV-LV1, LV2)	6.5%	8%	9.5%	
Auxiliary Transformer	Dry type, 5 kVA, 800 V / 400 V, Dyn11, level H (Customizable)			
UPS	1 kVA, 30 min (Customizable)			
Protection				
Transformer Monitoring And Protection	Oil Level, Oil Temperature, Oil Pressure and Buchholz relay			
Rated Short-Circuit Breaking Current	20 kA / 3 s (Optional: 25 kA / 1 s)			
Mv Relay Protection	50 / 51, 50N / 51N			
LV Overvoltage Protection	Type I+II			
Protection Degree	IP54 for whole box transformer IP68 for transformer body			
Anti-Corrosion Degree	C4			
General				
Dimensions	6058 × 2896 × 2438 mm, standard 20-foot HC container			
Weight	<15 T	<22 T	<27 T	
Temperature Range	-25~+60°C			
Relative Humidity	0~95%			
Max. Operating Altitude	2000 m			
Communication Protocol	Modbus-RTU / Modbus-TCP / IEC104			
Color	RAL7035			
Applicable Standards	IEC 62271-200/202, EN 50588-1, IEC 60076, IEC 61439-1			

ESHV
145/250K
-A-G01



FEATURES



Modular Design

- High maintainability, reduced MTTR
- Single battery rack management, avoid single point of failure
- Compatible with a mix of new and old batteries, extending system lifetime



Grid Friendly

- Coordinated control for grid friendly and load friendly
- Grid-forming technology, grid support as the core feature
- Complete communication method, support RS485, Ethernet, CAN



High Efficiency

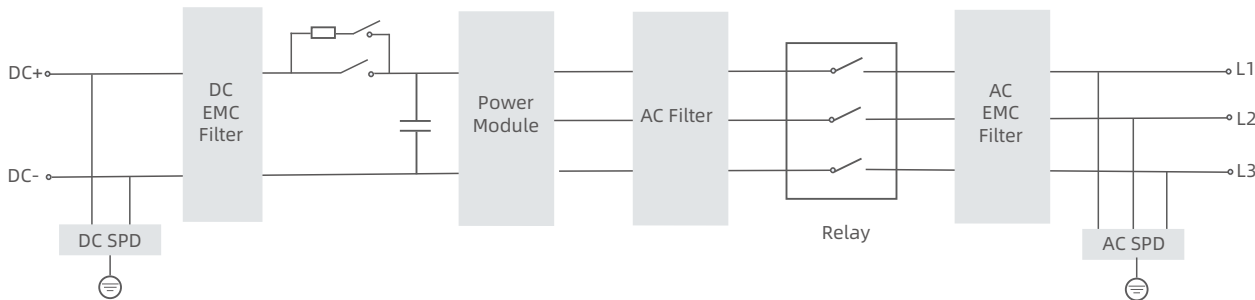
- Pure and stable sine wave output
- Power factor ranges from -1 to 1



Reliable & Safety

- IP66 protection class
- Tailored anti-corrosion solutions for reliability
- No derating at 45°C, 3000m altitude

TOPOLOGICAL GRAPH



PARAMETERS

Model	ESHV145K-A-G01	ESHV250K-A-G01
DC Input		
DC Voltage Range	580~1500 V	1000~1500 V
Max. DC Current	281 A	
AC Output		
Rated Power	145 kW	250 kW
Max. Output Power	160 kW	275 kW
AC Connection	3W + PE	
Isolation	Non-isolation	
On-Grid		
Rated Grid Voltage	400 V	690 V
Voltage Range	340~440 V	586.5~759 V
Rated Grid Frequency	50 Hz / 60 Hz	
Frequency Range	45~55 Hz / 55~65 Hz	
THDi	<3% (At rated power)	
Power Factor	-1~1	
Charge-Discharge Conversion Time	<20 ms	
Off-Grid		
Rated Output Voltage	400 V	690 V
Voltage Imbalance	<2%, No more than 4% in a short period of time	
THDu	<3% (No load or rated resistive load)	
Voltage Transient Range	<10% (Resistive load/balanced load. Load change suddenly from 20% to 100% or from 100% to 20%)	
Overvoltage Protection	Settable value	
Undervoltage Protection	Settable value	
General Data		
Ground System	IT	
Operating Ambient Temperature Range	-40~+60℃ (Derating above 45℃)	
Allowable Relative Humidity Range	0~100%	
Allowable Altitude Range	<4000 m (Derating above 3000 m)	
Noise Level	75 dB	
DI Port	4 pairs	
DO Port	2 pairs	
Anti-Corrosion degree	C4 (C5 is optional)	
Surge Protection	DC Type II / AC Type III	
Wiring Method	Bottom in and bottom out (Quick plug terminal)	
Protection Degree	IP66	
Cooling Method	Smart air-cooling	
Indicator	LED indicator	
Communication Interface	Ethernet, RS485, CAN, Local debugging Wi-Fi (Optional)	
Communication Protocol	Modbus TCP / RTU	
Dimensions (W × H × D)	795 × 915 × 294 mm (Excludes hanging board)	
Weight	≤100 kg (Net weight)	
Standard Compliance	IEC 62477-1	GB/T 34120-2023, GB/T 34133-2023, EN 50549-1/-2, IEC 62477-1, IEC 61000

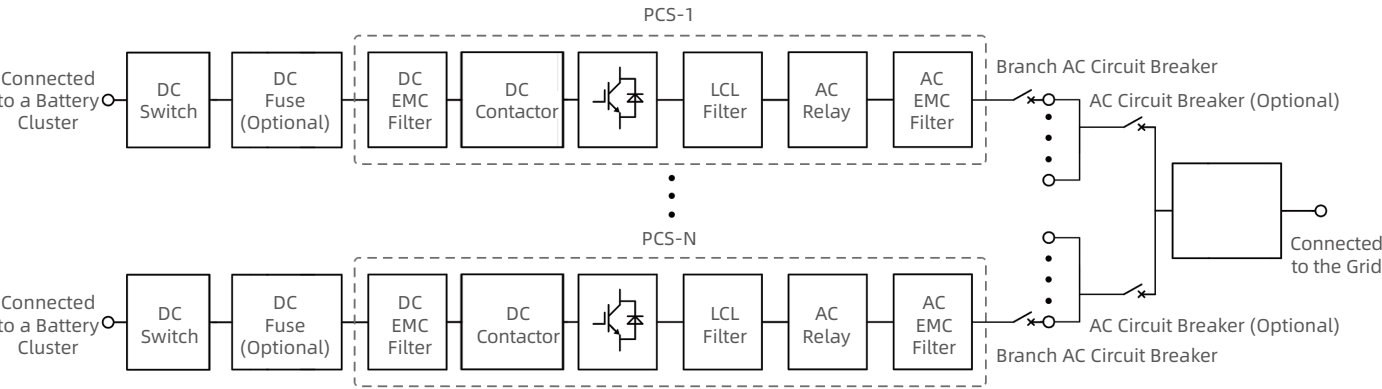
HPPS Series



FEATURES

- Rack-level management for batteries to address the issue of circulating current in parallel connections
- Modular design to prevent single point of failure
- Use of the three-level technology
- Strong environmental adaptability with C4~C5 anti-corrosion degree available, and no derating at 45°C ambient temperature
- Flexible capacity configuration and customizable MV voltage level of 6~35kV
- Multiple operation modes supported such as PQ and VSG

TOPOLOGICAL GRAPH



PARAMETERS

Model	HPPS-1250B	HPPS-2500B	HPPS-3000B
DC Parameters			
Number of DC Input Channels	6	12	14
Max. DC Current	281 A × 6	281 A × 12	281 A × 14
DC Voltage Operating Range	1000~1500 V		
AC Parameters			
Total Rated Power	1250 kW	2500 kW	3000 kW
Max. Output Power	1375 kVA	2750 kVA	3300 kVA
Rated Voltage	690 Vac		
Isolation Mode	Transformer Isolation		
Reactive Power Range	0~1312.5 kvar	0~2625 kvar	0~3150 kvar
On-Grid Mode			
Rated Grid Voltage	6~35 kV (Customizable)		
Rated Grid Frequency	50 Hz / 60 Hz		
THDi	<3%		
Power Factor	-1~1		
Transformer Parameters			
Rated Capacity	1250 kVA	2500 kVA	3000 kVA
Transformer Type	Oil-immersed Transformer		
LV/MV Voltage	0.69 / (6~35) kV		
System Parameters			
Dimensions (W × H × D)	6058 × 2896 × 2438 mm		
Operating Temperature	-40~+60°C (Derating above 45°C)		
Operating Humidity	0~100%		
Operating Altitude	≤4000 m (No derating within 3000 m)		
Protection Degree	IP54 (PCS IP66)		
BMS Communication	RS485 / CAN		
EMS Communication	Ethernet Interface		
Communication Protocol	Modbus RTU / Modbus TCP / IEC104 / IEC61850		
Standard Compliance	GB/T 34120, IEC62477, IEC61000, EN50549		
Grid Support	H/LVRT, Frequency adjustment function, Voltage adjustment function, Inertia response, Etc.		

*Please refer to the latest physical product for any changes in specifications.
*The table only lists some models. Products can be customized for projects.

hopeComBox
1000-G03



FEATURES



Flexible Networking

- Support 8 RS485, Ethernet, Wi-Fi multiple communication interfaces
- Support multiple types of devices access and data forwarding
- Support IEC 104, Modbus-TCP, IEC 61850 and other communication protocols



Convenient O&M

- Support both APP remote monitoring and local monitoring
- Support automatic addresses assignment for inverters
- Support connection with up to 40 inverters
- Equipped with 8 DI, 6 DO, 6 AI, 6 AO interfaces

PARAMETERS

Model	hopeComBox1000-G03
Devices Regulation	
Max. Number of Inverter Connection	40
Networking	RS485 / PLC / RJ45 / 4G / Wi-Fi
Communication Interface	
PLC Interface	800 VAC
RS485 Interface	COM × 8
Ethernet Interface ①	ETH × 2
Power Supply	
AC Input	220 VAC, 50 Hz / 60 Hz
Grid Type	Single phase, L + N + PE
General Parameters	
Operating Temperature	-40~+65℃
Storage Temperature	-40~+70℃
Operating Humidity	5~95% (non condensation)
Operating Altitude	≤4000 m
Ingress Protection Class	IP65
Installation Methods	Wall-Mounted, Pole-Mounted
Mechanical Parameters	
Dimensions (W × H × D) ②	410 × 430 × 130 mm
Weight	≤15 kg

① One of the Ethernet interface is exclusively for local debugging.
② Dimensions exclude some components such as mounting lugs and handles. Dimensional error: ±10mm.

hopeComBox
2000-G03



FEATURES



Flexible Networking

- Support 2 PLC, 8 RS485, Ethernet, Wi-Fi multiple communication interfaces
- Support multiple types of devices access and data forwarding
- Support IEC 104, Modbus-TCP, IEC 61850 and other communication protocols



Convenient O&M

- Support automatic addresses assignment for inverters
- Support connection with up to 40 inverters
- Support devices encryption access, high data security



Intelligent Regulation

- Support upgrading inverters from the central control room, batch parameters setting
- Support local real-time monitoring

PARAMETERS

Model	hopeComBox2000-G03
Devices Regulation	
Max. Number of Inverter Connection	40
Networking	RS485 / PLC / RJ45 / SFP
Fiber Switch	2 optical 3 electrical fiber switches
Fiber Optic Terminal Box	4 inlets 24 outlets SC single mode fiber optic terminal box
Communication Interface	
PLC Interface	800 VAC × 2
RS485 Interface	COM × 8
Ethernet Interface ①	ETH × 2
Fiber Optic Interface	SFP × 2
Power Supply	
AC Input	220 VAC, 50 Hz / 60 Hz
Grid Type	Single phase, L + N + PE
General Parameters	
Operating Temperature	-40~+65℃
Storage Temperature	-40~+70℃
Operating Humidity	5~95% (non condensation)
Operating Altitude	≤4000 m
Ingress Protection Class	IP65
Installation Methods	Wall-Mounted, Pole-Mounted
Mechanical Parameters	
Dimensions (W × H × D) ②	430 × 670 × 175 mm
Weight	≤15 kg

① One of the Ethernet interface is exclusively for local debugging.
② Dimensions exclude some components such as mounting lugs and handles. Dimensional error: ±10mm.

hopePowerBox
-G03



FEATURES



Flexible Networking

- Support 8 RS485, Ethernet, Wi-Fi multiple communication interfaces
- Support multiple types of devices access and data forwarding
- Support IEC 104, Modbus-TCP, IEC 61850 and other communication protocols



Convenient O&M

- Support both APP remote and local monitoring
- Support automatic addresses assignment for inverters
- Support connection with up to 40 inverters



Intelligent Regulation

- Support flexible setting of zero export control period
- Compatible with medium-voltage connected grid projects

PARAMETERS

Model	hopePowerBox-G03
Devices Regulation	
Max. Number of Inverter Connection	40
Networking	RS485 / RJ45 / 4G / Wi-Fi
Communication Interface	
RS485 Interface	COM × 8
Ethernet Interface ①	ETH × 2
Power Supply	
AC Input	400 VAC, 50 Hz / 60 Hz
Grid Type	3P + N + PE / 3P + PE
General Parameters	
Operating Temperature	-40~+65°C
Storage Temperature	-40~+70°C
Operating Humidity	5~95% (non condensation)
Operating Altitude	≤4000 m
Ingress Protection Class	IP65
Installation Methods	Wall-Mounted, Pole-Mounted
Mechanical Parameters	
Dimensions (W × H × D) ②	410 × 430 × 130 mm
Weight	≤15 kg

① One of the Ethernet interface is exclusively for local debugging.
② Dimensions exclude some components such as mounting lugs and handles. Dimensional error: ±10 mm.

hopeDongle
G01-WiFi



FEATURES



Easy to Use

- Plug and play, quick installation
- Support cloud platform monitoring services
- Support remote modify local parameters
- Support remote firmware upgrade



Flexible

- Support multiple data formats
- Support fast adaptation of all kinds of equipment



Stable

- Industrial components and designs, wide temperature range
- Password and encrypted transmission for data protection
- Real-time detection of online status

PARAMETERS

Model	hopeDongle-G01-WiFi
External Interface	
Docking Method	HKJ (aviation plug)
Operating Indicator	LED indicator
General Parameters	
Dimensions (W × H × D)	140 × 45 × 29 mm
Weight	70 g
Protection Degree	IP65
Rated Voltage	DC5~17 V
Max. Current	250 mA (DC5 V)
Operating Temperature	-40~+85°C
Storage Temperature	
Hardware Parameters	
Data Input Mode	RS485 (9600 bps)
Data Output Mode	Wi-Fi
Wi-Fi Parameters	
Operating Frequency	2.412~2.472 GHz
Wireless Standard	802.11 b/g/n
Data Transmission Rate	11Mbps@11b, 54Mbps@11g
Operating Mode	AP + STA (coexistence mode)
Software Parameters	
Supported Device Protocols	Modbus-RTU
Software Watchdog	Support
Data Upload Cycles	5 minutes (default)
Parameter Configuration Method	hopeCloud APP
Cloud Platform	hopeCloud
Others	
Certification	CE (IEC-60529, IEC-62311, IEC-62368, EMC), RED

hopeDongle
G02-WiFi



FEATURES



Easy to Use

- Plug and play, quick installation
- Supports cloud platform monitoring services
- Supports remote modify local parameters
- Supports remote firmware upgrade



Flexible

- Supports multiple data formats
- Supports fast adaptation of all kinds of equipment



Stable

- Industrial components and designs, wide temperature range
- Password and encrypted transmission for data protection
- Real-time detection of online status

PARAMETERS

Model	hopeDongle-G02-WiFi
External Interface	
Docking Method	USB
Operating Button	RESET
Operating Indicator	LED indicator
General Parameters	
Dimensions (W × H × D)	118 × 49 × 33.5 mm
Weight	70 g
Ingress Protection	IP66
Rated Voltage	DC5~15 V
Max. Current	125 mA (DC12 V)
Operating Temperature	-30~+65°C
Storage Temperature	-40~+85°C
Hardware Parameters	
Data Input Mode	RS485 (9600 bps)
Data Output Mode	Wi-Fi
Wi-Fi Parameters	
Operating Frequency	2.412~2.472 GHz
Wireless Standard	802.11 b/g/n
Data Transmission Rate	11Mbps@11b, 54Mbps@11g
Operating Mode	AP + STA (coexistence mode)
Software Parameters	
Supported Device Protocols	Modbus-RTU
Software Watchdog	Support
Data Upload Cycles	5 minutes (default)
Parameter Configuration Method	hopeCloud APP
Cloud Platform	hopeCloud
Others	
Certification	CE (IEC-60529, IEC-62311, IEC-62368, EMC), EN (300328, 55032), RED

hopeDongle
G02-WiLAN



FEATURES



Easy to Use

- Plug and play, quick installation
- Supports cloud platform monitoring services
- Supports remote modify local parameters
- Supports remote firmware upgrade



Flexible

- Supports multiple data formats
- Supports fast adaptation of all kinds of equipment



Stable

- Industrial components and designs, wide temperature range
- Password and encrypted transmission for data protection
- Real-time detection of online status

PARAMETERS

Model	hopeDongle-G02-WiLAN
External Interface	
Docking Method	USB for connecting, RJ45 for Networking
Operating Button	RESET
Operating Indicator	LED indicator
General Parameters	
Dimensions (W × H × D)	165 × 50 × 33.6 mm
Weight	80 g
Ingress Protection	IP66
Rated Voltage	DC5~15 V
Max. Current	170 mA (DC12 V)
Operating Temperature	-30~+65°C
Storage Temperature	-40~+85°C
Hardware Parameters	
Data Input Mode	RS485 (9600 bps)
Data Output Mode	Wi-Fi
Wi-Fi Parameters	
Operating Frequency	2.412~2.472 GHz
Wireless Standard	802.11 b/g/n
Data Transmission Rate	11Mbps@11b, 54Mbps@11g
Operating Mode	AP + STA (coexistence mode)
Software Parameters	
Supported Device Protocols	Modbus-RTU
Software Watchdog	Support
Data Upload Cycles	5 minutes (default)
Parameter Configuration Method	hopeCloud APP
Cloud Platform	hopeCloud
Others	
Certification	CE (IEC-60529, IEC-62311, IEC-62368, EMC), EN (55032, 62311), RED

180 GW⁺

SHIPMENTS WORLDWIDE



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If the product size and parameters have changed, the latest actual product shall prevail