



HOPEWIND

Stock Code: SSE-603063

PV Grid-tied Inverter

Brochure

www.hopewind.com

“ Company Profile

Shenzhen Hopewind Electric Co., Ltd. (Stock Code: 603063) focuses on the R&D, manufacturing, sales and services of renewable energy & electric drive products, including products for wind power generation, photovoltaic generation, energy storage, hydrogen production power supply products, special power supply, power quality and electric 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.

*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

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

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

» Contents



Green Residential Solution

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

Green C&I Solution

- P08 25-50kW Three-phase PV Grid-tied Inverter
- P10 60-150kW Three-phase PV Grid-tied Inverter

Green Utility Solution

- P18 250-385kW Three-phase PV Grid-tied Inverter
- P24 MV Transformer Station

P26 Smart Controller

P29 Smart Dongle



HSSP3-10K-G01



FEATURES



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



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

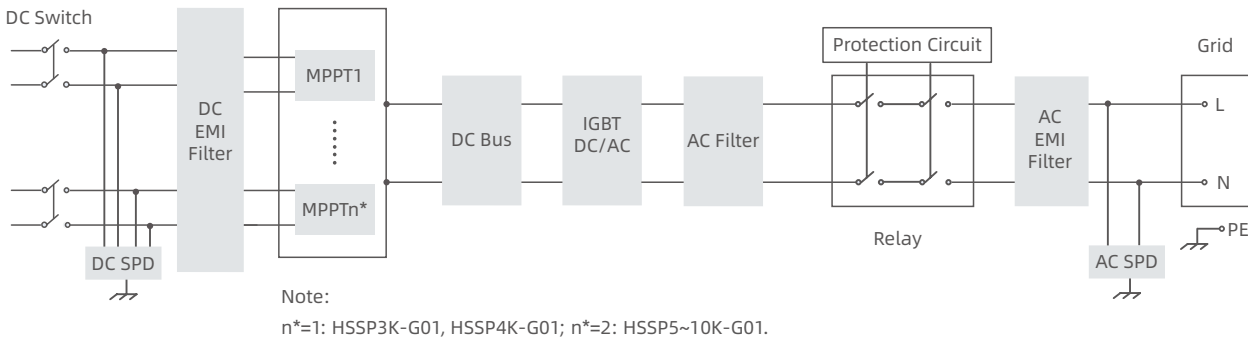


- Plug and play
- Fanless design, low noise
- Smart LED indicators



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

TOPOLOGICAL GRAPH



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					
Grid Frequency Range	45~55 Hz / 55~65 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 Connection Detection	Yes					
PV Reverse Polarity Protection	Yes					
Anti-islanding Protection	Yes					
Output Overcurrent Protection	Yes					
DC Switch	Yes					
Zero Export Function	Yes					
Optional	Arc Fault Circuit Interrupter (AFCI)					
General Parameters						
Dimensions (W × H × D)	425 × 400 × 146 mm		425 × 400 × 167 mm		512 × 438 × 177 mm	
Weight	≤8.5 kg	≤9 kg	≤13 kg		≤16 kg	≤16.5 kg
Ingress Protection	IP66					
Operating Temperature Range	-25~+60°C					
Cooling System	Natural cooling					
Topology	Transformerless					
Operating Altitude	4000 m (>3000 m derating)					
Display	LED, WLAN+APP					
Communication	Wi-Fi					
DC Connection Type	DC connector (4~6 mm ²)					
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

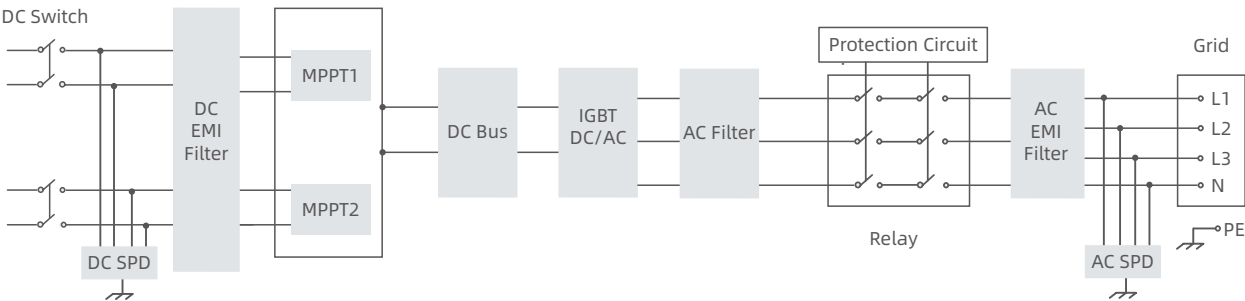
- Under/over voltage protection
- Anti-islanding protection
- Built-in Type II DC&AC SPD



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	200 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 (3W + 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										
Grid Frequency Range	45~55 Hz / 55~65 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 Connection 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)	360 × 400 × 247 mm					380 × 450 × 247 mm					
Weight	≤22 kg					≤25 kg		≤30 kg	≤35 kg		
Protection Degree	IP65										
Operating Temperature Range	-40~+60°C										
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	DC connector (4~6 mm ²)										
AC Connection Type	SC terminal					Tube type terminal			OT/ DT terminal		

HSNV25-50K
-G01



FEATURES



Efficient

- Multi-MPPT with Max. efficiency of 98.60%
- 110% AC overloading
- Up to 20A of MPPT current input to support 210mm & bifacial PV modules



Reliable

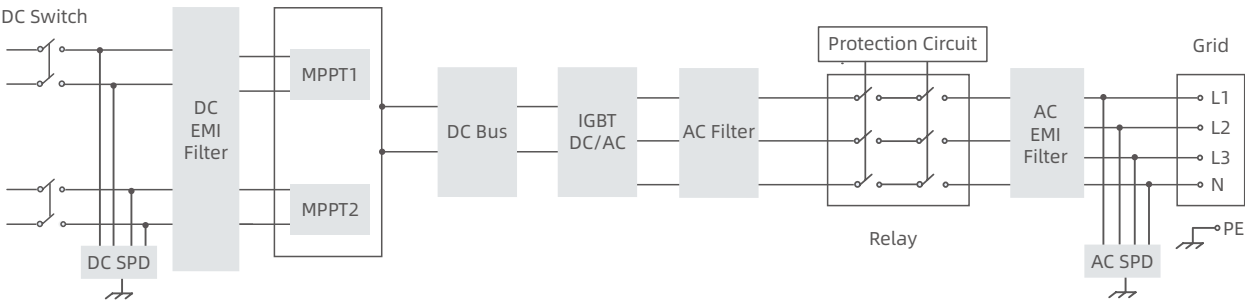
- Highly precise & intelligent string detection
- Built-in SPD for surge protection & AFCI function
- Wide AC voltage range for unstable grid



User Friendly

- Built-in zero export function interface
- Supports country grid code preset
- Remote firmware upgrade
- Near-end commissioning via APP

TOPOLOGICAL GRAPH



PARAMETERS

Model	HSNV25K-G01	HSNV30K-G01	HSNV36K-G01	HSNV40K-G01	HSNV50K-G01
DC Input					
Max. Input Voltage	1100 V				
Starting Voltage	200 V				
MPPT Voltage Range	200~1000 V				
Max. Input Current Per MPPT	40 A / 40 A		45 A / 45 A	54 A / 54 A	60 A / 60 A
Max. Short-circuit Current	65 A / 65 A		67.5 A / 67.5 A	81 A / 81 A	90 A / 90 A
Number of DC Inputs	2 / 2	3 / 3		5 / 4	
Number of MPP Trackers	2				
AC Output					
Rated Output Power	25 kW	30 kW	36 kW	40 kW	50 kW
Max. Output Power	27.5 kW	33 kW	39.6 kW	44 kW	55 kW
Rated Output Voltage	230 V / 400 V (3W + N + PE)				
Operating Voltage Range	300~520 V				
Rated Output Current	36.1 A	43.5 A	52.0 A	57.7 A	72.2 A
Max. Output Current	39.7 A	47.8 A	57.2 A	63.5 A	79.4 A
Rated Grid Frequency	60 Hz		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				
PV Reverse Polarity Protection	Yes				
Insulation Impedance Detection	Yes				
Residual Leakage Current Detection	Yes				
Output Overcurrent Protection	Yes				
Anti-islanding Protection	Yes				
Zero Export Function	Yes				
PV String Connection Detection	Yes				
Arc Fault Circuit Interrupter (AFCI)	Yes				
DC Switch	Yes				
General Parameters					
Dimensions (W × H × D)	560 × 823 × 307 mm				
Weight	≤55 kg				
Ingress Protection	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	DC connector (4~6 mm²)				
AC Connection Type	OT / DT terminal				
Standard Compliance (More Available Upon Request)					
Certification	IEC 62109, IEC 61000, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 50549-1, EN 50549-2, VDE 4105, VDE 4110, VDE 4120				

Note: HSNV25/30K-G01 inverter is only applicable to the Brazilian market.

HSNV60/70/75/
100/110K-G01



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



Reliable

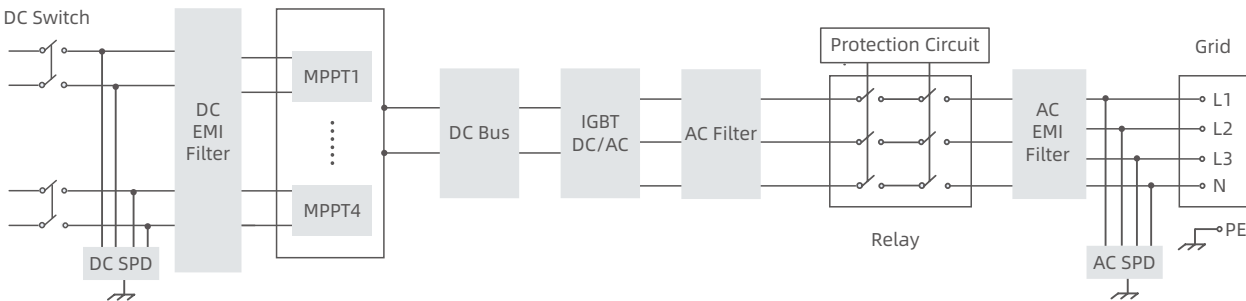
- High precisely & intelligent string detection
- Built-in SPD for surge protection & AFCI function
- Wide AC voltage range for unstable grid
- Built-in PID recovery module (optional)



User Friendly

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

TOPOLOGICAL GRAPH



PARAMETERS

Model	HSNV60K-G01	HSNV70K-G01	HSNV75K-G01	HSNV100K-G01	HSNV110K-G01
DC Input					
Max. Input Voltage	1100 V				
Starting Voltage	200 V				
MPPT Voltage Range	200~1000 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 (3W + 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				
Grid Frequency Range	45~55 Hz / 55~65 Hz				
Power Factor	>0.99 (0.8 leading~0.8 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				
PV Reverse Polarity Protection	Yes				
Insulation Impedance Detection	Yes				
Residual Leakage Current Detection	Yes				
Output Overcurrent Protection	Yes				
Anti-islanding Protection	Yes				
Zero Export Function	Yes				
PV String Connection Detection	Yes				
Arc Fault Circuit Interrupter (AFCI)	Yes				
DC Switch	Yes				
I/V Curve Scanning	/			Yes	
Optional	PID recovery				
General Parameters					
Dimensions (W × H × D)	792 × 742 × 313 mm			890 × 814 × 343 mm	
Weight	≤75 kg			≤85 kg	
Ingress Protection	IP65				
Operating Temperature Range	-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	DC connector (4~6 mm²)				
AC Connection Type	OT / DT terminal				
Standard Compliance (More Available Upon Request)					
Certification	IEC 62109, IEC 61000, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 50549-1, EN 50549-2, VDE 4105, VDE 4110, VDE 4120				

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



FEATURES



Efficient

- 4 MPPTs with Max. efficiency of 98.70%
- 110% AC overloading
- Up to 20A of MPPT current input to support 210mm & bifacial PV modules



User Friendly

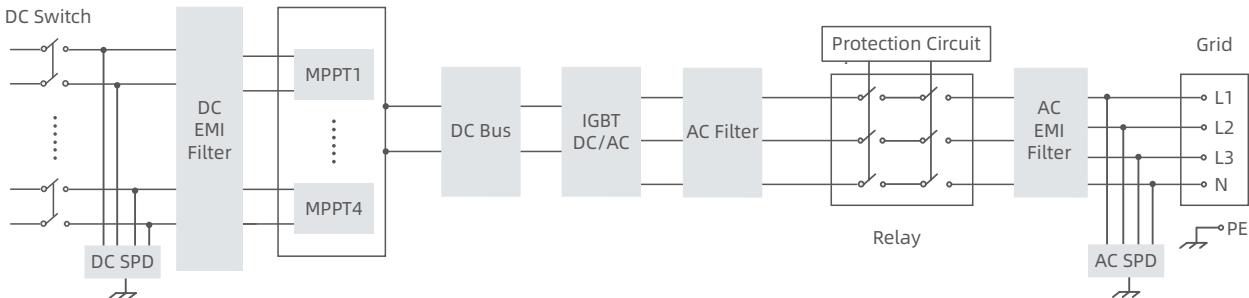
- Built-in zero export function interface
- Supports country grid code preset
- 24/7 monitoring & remote firmware upgrade
- Near-end commissioning via APP



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	200 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 (3W + N + PE)				
Operating Voltage Range	300~500 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	98.70%				
European Efficiency	98.40%				
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 Connection Detection	Yes				
DC&AC Terminal Temperature Detection	Yes				
SVG	Yes				
Arc Fault Circuit Interrupter (AFCI)	Yes				
DC Switch	Yes				
Optional	PID recovery, RSD (Tigo)				
General Parameters					
Dimensions (W × H × D)	953 × 657 × 384 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	4500 m (>3000 m derating)				
Display	LED, Wi-Fi + APP				
Communication	RS485 / Wi-Fi, PLC (optional)				
DC Connection Type	DC connector (4~6 mm²)				
AC Connection Type	OT / DT / DTL 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				

HSNV60/100/
110K-G03



FEATURES



Efficient Power Generation

- 4 MPPTs with Max. efficiency of 98.70%
- MPPT current of 65A, fully compatible with 180/210 modules
- Wide temperature range, supports full-load operation at 45°C
- Supports PID recovery function, enhances system power generation



Safe and Reliable

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



Smart and User-friendly

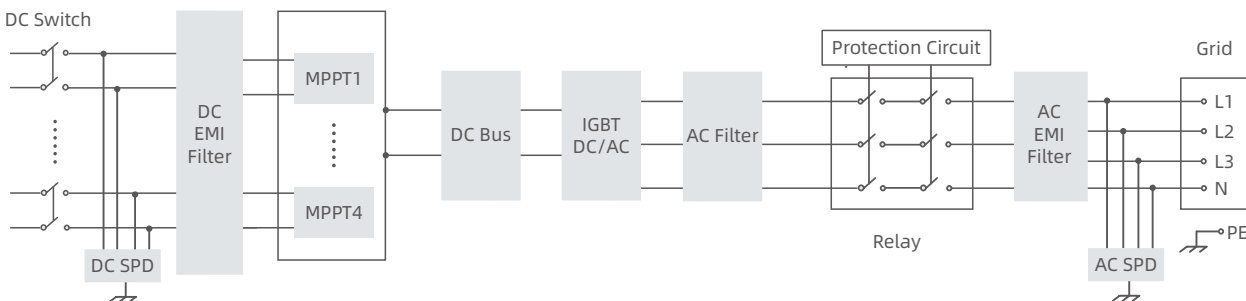
- Smart air cooling design to ensure stable system operation
- With active reactive power regulation, zero-voltage ride-through function
- AC/DC redundant design, 24-hour real-time monitoring



Economical and Eco-friendly

- Dual independent 485 communication, support multi-platform independent monitoring
- Supports up to 240mm² of aluminum wire connections, reduces cable costs
- Integrated tracking power supply and communication port for lower system cost

TOPOLOGICAL GRAPH



PARAMETERS

Model	HSNV60K-G03		HSNV100K-G03	HSNV110K-G03
DC Input				
Max. Input Voltage	1100 V			
Starting Voltage	200 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 × 3	4 × 4		
Number of MPP Trackers	4			
AC Output				
Rated Output Power	60 kW	100 kW	110 kW	
Max. Output Power	66 kW	110 kW	121 kW	
Rated Output Voltage	230 V / 400 V (3W + N + PE)			
Operating Voltage Range	300~500 V			
Rated Output Current	86.6 A	144.3 A	158.8 A	
Max. Output Current	95.3 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	98.70%			
European Efficiency	98.40%			
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			
DC Switch Automatic Trip	Yes			
Zero Export Function	Yes			
PV String Connection Detection	Yes			
DC&AC Terminal Temperature Detection	Yes			
Rapid Shutdown (RSD, External)	Yes			
Arc Fault Circuit Interrupter (AFCI)	Yes			
PID Recovery	Yes			
I/V Curve Scanning	Yes			
General Parameters				
Dimensions (W × H × D)	953 × 657 × 384 mm			
Weight	≤76 kg			
Ingress Protection	IP66			
Operating Temperature Range	-25~+60℃			
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	DC connector (4~6 mm²)			
AC Connection Type	OT / DT / DTL 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			

HSNV125/150K
-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

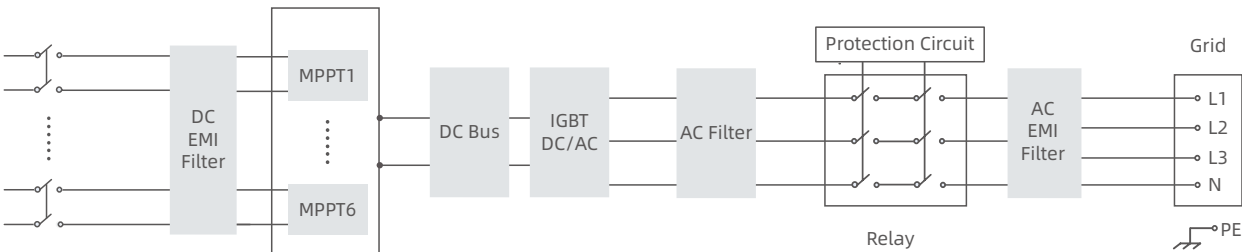
- IP66 ingress protection, a strong environmental adaptability
- Built-in AC/DC SPD for comprehensive lightning protection
- Equipped with intelligent DC disconnection functions for higher safety
- Featuring temperature detection for both AC and DC terminals, enhances safety and reliability



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	HSNV125K-G01		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	125 kW		150 kW	
Max. Output Apparent Power	137.5 kVA		165.0 kVA	
Rated Output Voltage	400 V (3W + N + PE)			
Rated Voltage Range	300~520 V			
Rated Output Current	180.4 A		216.5 A	
Max. Output Current	198.5 A		238.2 A	
Rated Frequency	50 Hz / 60 Hz			
Power Factor	0.8 leading~0.8 lagging			
Harmonic (THDi)	<3%			
Efficiency				
Max. Efficiency	98.60%		98.80%	
European Efficiency	98.30%			
Protection				
Surge Protection	DC type II / AC type II			
Insulation Impedance Detection	Yes			
Residual Leakage Current Detection	Yes			
PV String Connection Detection	Yes			
PV Reverse Polarity Protection	Yes			
Anti-islanding Protection	Yes			
Zero Export Function	Yes			
Output Overcurrent Protection	Yes			
Output Short-circuit Protection	Yes			
Arc Fault Circuit Interrupter (AFCI)	Yes			
PID	Yes			
DC Switch	Yes			
Optional	I/V curve scanning			
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			
Anti-corrosion	C5 (optional)			
Storage Temperature	-40~+70°C			
Humidity	0~100% (non-condensation)			
Topology	Transformerless			
Operating Altitude	4000 m			
Display	LED indicator + APP			
Communication	RS485 / Wi-Fi / PLC			
DC Connection Type	DC connector (4~6 mm²)			
AC Connection Type	OT / DT / DTL terminal (recommend 95~240 mm², Max. 400 mm²)			

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

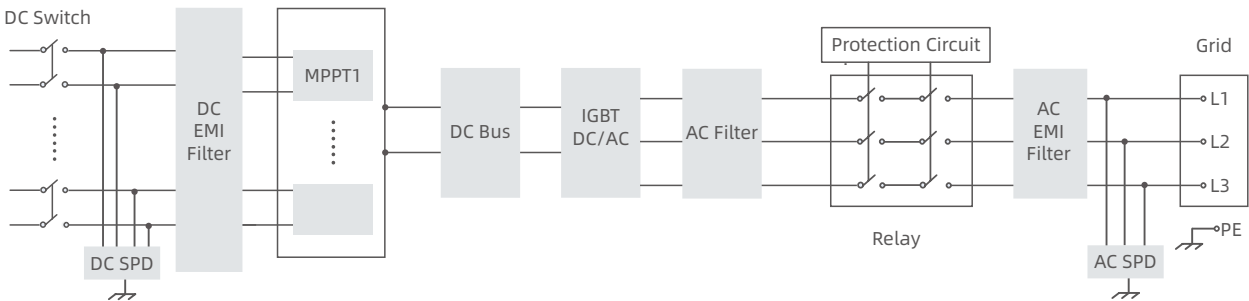
User Friendly

- 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 (3W + 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	98.46%
Protection	
Surge Protection	DC type II / AC type II
Insulation Impedance Detection	Yes
Residual Leakage Current Detection	Yes
PV String Connection 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 × 339 mm
Weight	≤115 kg
Protection Degree	IP66
Operating Temperature Range	-25~+60°C
Cooling System	Smart air cooling
Topology	Transformerless
Operating Altitude	4000 m (>3000 m derating)
Display	LED indicator
Communication	RS485 / PLC
DC Connection Type	DC connector (4~6 mm ²)
AC Connection Type	OT / DT / DTL terminal (≤300 mm ²)

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

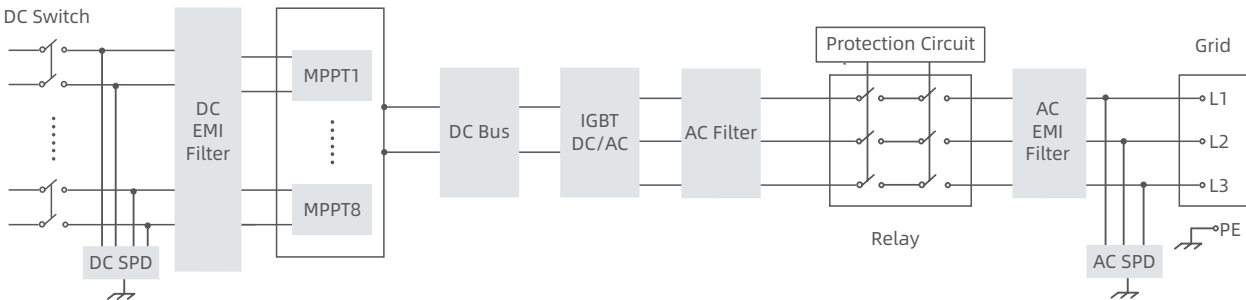
- IP66, C5 anti-corrosion for harsh environment
- AFCI (optional), DC&AC terminal temperature protection with smart DC switch
- Explosion relief valve for on-site personal safety



Economy Friendly

- Wi-Fi/PLC communication to reduce wiring costs
- Compatible with Aluminium AC cable up to 400mm²
- 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 (3W + 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 Connection 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	≤142 kg							
Protection Degree	IP66							
Anti-corrosion Degree	C5 (optional)							
Operating Temperature Range	-25~+60°C							
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	DC connector (4~6 mm²)							
AC Connection Type	OT / DT / DTL 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)							

HSHV320/330/
350/385K
-G02



PRELIMINARY

FEATURES



Higher Performance

- 65A 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



More Reliable

- IP66 & C5 anti-corrosive for harsh environment
- Low SCR, compatible with weak grid situations
- AFCI, DC&AC temperature protection with smart DC switch
- Explosion-proof valve for on-site personal safety



Lower Cost

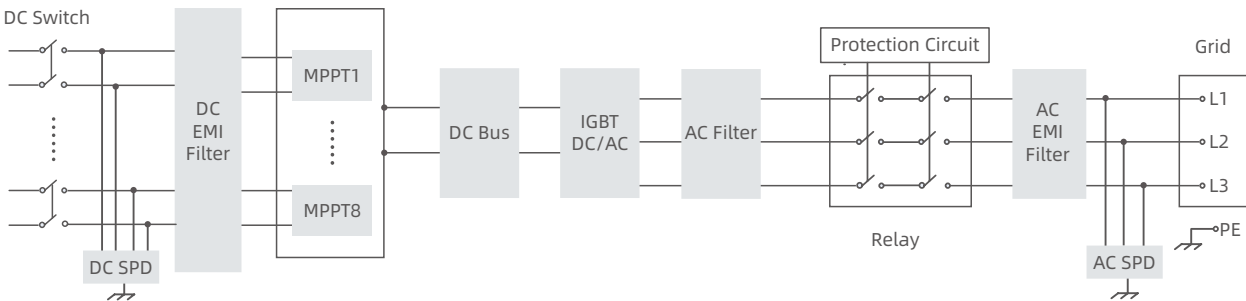
- Compatible with Aluminium cable of AC-side
- PLC communication to reduce wiring costs
- PID recovery & SVG



Convenient O&M

- Integrated with Aux. switch, initial debugging at any time
- 24/7 continuously monitoring
- Fault waveform recording on hopeCloud
- Smart IV curve diagnosis

TOPOLOGICAL GRAPH



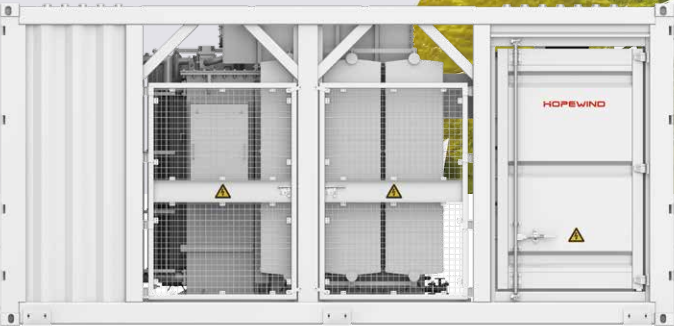
PARAMETERS

Model	HSHV320K-G02		HSHV330K-G02		HSHV350K-G02		HSHV385K-G02	
DC Input								
Max. Input Voltage	1500 V							
Starting Voltage	550 V							
MPPT Voltage Range	500~1500 V							
MPPT Range Full Load	960~1300 V							
Max. Input Current Per MPPT	65 A							
Max. Short-circuit Current	97.5 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 (3W + 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							
Grid Frequency Range	45~55 Hz / 55~65 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 Connection Detection	Yes							
PV Reverse Polarity Protection	Yes							
Anti-islanding Protection	Yes							
Output Overcurrent Protection	Yes							
DC Switch	Yes							
PID Recovery	Yes							
SVG Function	Yes							
Optional	AFCI, smart IV curve diagnosis							
General Parameters								
Dimensions (W × H × D)	1208 × 967 × 396 mm							
Weight	155 kg							
Protection Degree	IP66							
Operating Temperature Range	-30~+60℃ ^①							
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 / Wi-Fi, WiLAN (optional)							
DC Connection Type	DC connector (4~6 mm ²)							
AC Connection Type	OT / DT / DTL terminal (≤400 mm ²)							

① Able to start at -40°C.
Note: The parameters depicted in the HSHV320-385K-G02 datasheet are preliminary version and shall not serve as a binding reference for product performance compliance. The final product specifications shall prevail per the actual shipped products.

PRELIMINARY

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 V AC / 3P, 9pcs)	MCCB (400 A / 800 V AC / 3P, 18pcs)	MCCB (400 A / 800 V AC / 3P, 24pcs)	
	ACB (4000 A / 800 V AC / 3P, 1pc)	ACB (4000 A / 800 V AC / 3P, 2pcs)	ACB (4000 A / 800 V AC / 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			

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 V AC
RS485 Interface	COM × 8
Ethernet Interface ①	ETH × 4
Power Supply	
AC Input	220~230 V AC, 50 Hz / 60 Hz
Grid Type	Single phase, L + N + 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: ±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 Optic Terminal Box (Single Mode)	4 inlets 24 outlets
Communication Interface	
PLC Interface	800 V AC × 2
RS485 Interface	COM × 8
Ethernet Interface ①	ETH × 4
Fiber Optic Interface	SFP × 2
Power Supply	
AC Input	220~230 V AC, 50 Hz / 60 Hz
Grid Type	Single phase, L + N + 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	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 × 4
Power Supply	
AC Input	220~230 V AC, 50 Hz / 60 Hz
Grid Type	3W + N + PE / 3W + 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: ±10mm.

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℃
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

— To promote technological progress in the industry
and create a better life for mankind —



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