

HOPEWIND

POWER CONVERSION SYSTEM

# ESHV 145/250K -A-G01

**TIER 1**  
BloombergNEF  
Hopewind is ranked as  
Tier 1 Solar Inverter Maker by BNEF



## 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

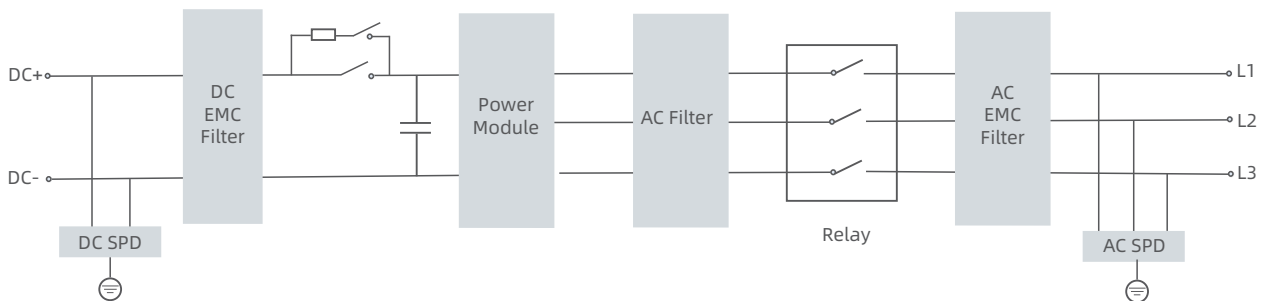
- Max. efficiency of 99%
- Pure and stable sine wave output
- Power factor ranges from -1 to 1



### 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
<b>DC Input</b>		
DC Voltage Range	580~1500 V	1000~1500 V
Max. DC Current	281 A	281 A
<b>AC Output</b>		
Rated Power	145 kW	250 kW
Max. Output Power	160 kW	275 kW
AC Connection	3W+PE	
Isolation	Non-isolation	
<b>On-Grid</b>		
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	
<b>Off-Grid</b>		
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	
<b>General Data</b>		
Ground System	IT	
Max. Efficiency	99%	
Operating Ambient Temperature Range	-40~+60°C (Derating above 45°C)	
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	C3 (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

