BSG1K037G

11kW/1000Vdc Photovoltaic-storage-V2G Integrated Module

Product Introduction

The BSG1K037G charging and discharging module adopts an independent air duct design. The power part is isolated from the external environment, ensuring high reliability. The module employs SiC power devices, featuring high energy conversion efficiency and high power density. The module has an extremely wide DC voltage range, which can meet the requirements of energy storage current and the charging and discharging of power batteries. It can be widely applied in scenarios such as destination vehicle-to-grid (V2G) charging and household photovoltaic-storage-charging.

Product Features

High Efficiency & Energy Saving

- High efficiency： Designed with all SiC (Silicon Carbide)， it has a full-load efficiency as high as 97.2%.
- Extremely low noise： The noise in the low-noise mode<45dB

Safety and Reliability

- Independent air duct design： The power part of the module features a closed design, which is not affected by the external environment and has high reliability.
- Isolation by high-frequency transformer： Ensure the high reliability of the bidirectional conversion module.

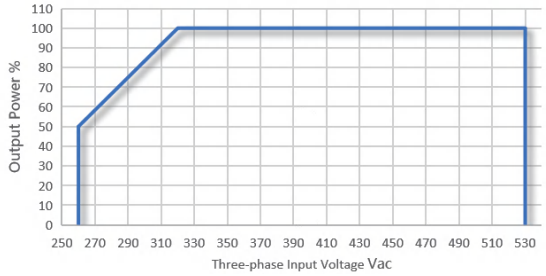
Intelligent and Convenient

- Integrated as a whole： It features a three-terminals design, with reserved terminals for photovoltaic and battery, which can be conveniently integrated into a household photovoltaic-storage-charging V2G all-in-one machine.
- Simple maintenance： The fan can be conveniently maintained from the side.

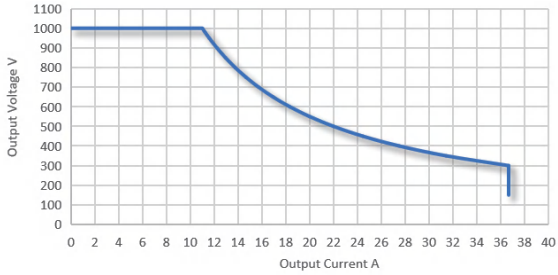
Widely Compatible

- Wide AC side voltage range： 260Vac ~ 530Vac， compatible with various power grids.
- Wide DC side voltage range ： 150Vdc~1000Vdc， compatible with various power batteries and energy storage batteries.

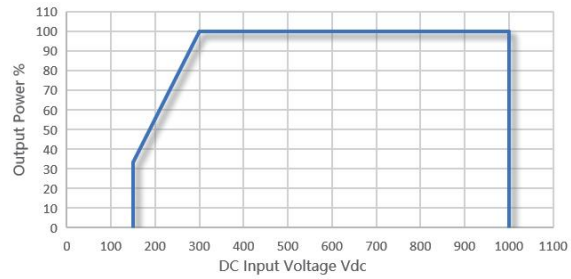
Rectification mode: Curve of the relationship between output power and input voltage



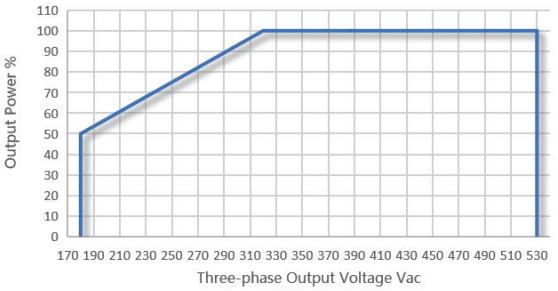
Rectification mode: Curve of the relationship between output current and output voltage



Inversion mode: Curve of the relationship between output power and input voltage



Inversion mode: Curve of the relationship between output power and output voltage



Technical Parameters			BSG1K037G
Working Conditions		Operating Temperature	-40℃～+55℃，derating shall be applied when the temperature is above +55℃.
		Relative Humidity	5%~95%RH，condensation-free
		Cooling Method	Air cooled, with independent air ducts for heat dissipation.
		Altitude	2000m，derating should be considered when the altitude is above 2000 meters.
Rectification Mode	AC Input	Input Voltage Range	260Vac~530Vac，3L+N+PE
		Rated Voltage	380Vac/400Vac/480Vac
		Frequency Range	50Hz/60Hz
		Power Factor	≥0.99 (full load output)
		THD	≤3% (50%～100% output power)
	DC Output	Output Voltage Range	150Vdc～1000Vdc
		Rated Power	11KW
		Current Range	0~36.6A
		Constant Power Output Voltage Range	300Vdc～1000Vdc
Switching time between rectification and inversion modes			<100ms
Inversion Mode	DC Input	Input Voltage Range	150Vdc～1000Vdc，300Vdc～1000Vdc full power operation
	AC Output	Voltage Range	180Vac～530Vac，3L+N+PE
		Frequency Range	50Hz/60Hz
		Rated Power	11kVA
		THD	≤3%
Appearance		Dimension	530mm (H) ×369mm (W) ×105mm (D)
		Weight	<20kg
Others		Connect Method	CAN
		Ingress Protection	IP65
		Peak Efficiency	97.2%
		Noise	<50dB (Normal Temperature)，<45dB (Mute Mode)
		Satisfied Standards	CE、TUV、cULus/TUVus