

BEG1K0110G

62.5kW/1000Vdc Bidirectional AC/DC Conversion Module



Product Introduction

BEG1K0110G is a non-isolated bi-directional ACDC converter module designed to meet the applications of energy storage equipment and the stepwise utilization of retired batteries. The module can be used to connect the battery and AC power grid. It adopts the third-generation semiconductor SiC, coupled inductor and other technologies to realize excellent performance such as high efficiency, high power density, high scalability, minimal electromagnetic radiation and interference, high reliability, etc. It is a power converter module with international leading level.

Product Features



High Efficiency & Energy Saving

- High efficiency: Designed with all SiC (Silicon Carbide), it has a peak efficiency of up to 99%.
- High power density: : All SiC design, efficiency up to 98.7% makes it more energy efficient.



Safety and Reliability

- Isolated air ducts and gluing: Isolated air ducts are designed to improve heat dissipation efficiency, and the gluing process makes the module's ability to protect against salt spray, humidity, mold and mildew significantly improved.
- Non-destructive hot-plugging: Plug-in design, easy maintenance.



Intelligent and Convenient

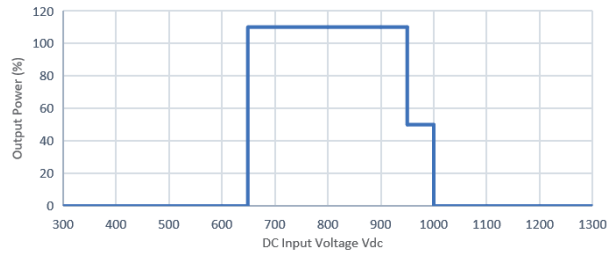
- Supporting parallel and off-grid applications: adapting to various application scenarios.
- Parallel connection of multiple modules: It supports the parallel connection of up to 16 modules. With flexible capacity expansion which can be adapted to the simultaneous use of retired batteries of different models.



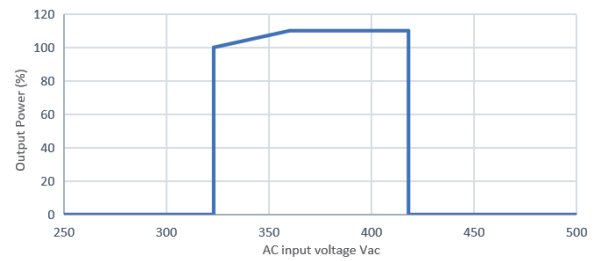
Widely Compatible

- Wide AC voltage range: 323Vac to 418Vac, adaptable to various power grids.
- Wide DC voltage range: 650Vdc~1000Vdc, suitable for charging and discharging different types of batteries.
- Wide temperature range: -40°C ~ +75°C, adapting to a variety of scene applications.

Inverter mode: output power vs. input voltage curve



Inverter mode: output power vs. output voltage curve



Model			BEG1K0110G		
Working Conditions		Operating Temperature	-40°C ~ +75°C, derating above +55°C.		
		Relative Humidity	≤95%RH, Condensation-free		
		Cooling Method	Forced Air Cooling		
		Altitude	3000m, above 3000m need to consider the use of derating		
Rectification Mode	AC Input	Rated Voltage	380Vac, 3L+PE		
		Input Voltage/Frequency Range	323Vac ~ 418Vac; 45Hz ~ 65Hz		
		Power Factor	≥ 0.99 (50% to 100% full load output)		
		THD	<3% (50% to 100% full load output power)		
	DC Output	Rated Power	62.5kW		
		Output Voltage/Current Range	650Vdc~1000Vdc, 0~110A		
		Voltage Stabilization Accuracy	< ±0.5%		
		Stabilization Accuracy	≤ ±1% (output load 20% to 100% rated range)		
		Efficiency (Peak)	≥ 99%		
Rectifier and inverter mode switching time (Battery Test)			<100ms		
Inverter Mode	DC Input	DC Input Voltage & Output Power		650Vdc~1000Vdc; 62.5kW constant power output	
		Maximum Current		110A	
	AC Output	Output AC Voltage		323Vac ~ 418Vac	
		Rated Power/Current		62.5kW /95A	
		Output AC Frequency		50Hz/60Hz	
		THDi		< 3%	
		Output Power Factor		Settable, setting range 0.8~1, -0.8~-1	
		Efficiency (Peak)		≥ 99%	
		Wiring Method		3L+PE/Grid-connected, 3L+N+PE/Off-grid	
		Off-grid	Voltage Accuracy/Distortion		1% / 3%
			Power Factor		0.7~1.0 (For more application scenarios)
			Voltage Dynamic Response/Recovery Time		5% / 20mS
Appearance		Dimension	110mm(H)×385mm(W)×390mm(D)		
		Weight	≤22kg		
Others		Connect Method	CAN		
		MTBF	>500,000h		
		Satisfied Standards	CE、TUV、UL		