

## PCBs description inside SG2500/SG2500MV Turnkey inverter

This document will describe the functions of PCBs inside SG2500/SG2500MV turnkey inverter for user reference.

No	Code	Name of PCB	Position	Tagging	Description of functions
1	BP00189 2	DSP control board	Front of inverter unit AC cabinet	PA	Sampling current signals: CAN, RS485 communication, and carrier optical transmission circuits; IGBT drive signal modulation circuit; DSP peripheral circuit and realization of relevant control algorithms and logics
2	BP00196 5	Adapter board	Front of inverter unit AC cabinet	PD	Sampling of voltage signals; sampling of temperature; test of input nodes (e.g. contactor feedback node, reactor over-temperature node etc.) and output nodes (e.g. discharge board, AC contactor control etc.)
3	BP00190 3	Metering board	Front of inverter unit AC cabinet	PG	Metering of inverter input/output electric energy parameters; realization of nighttime low power consumption logic; PID power supply suppression or repair mode control; and communications RS485, CAN, and LAN
4	BP00189 6	Branch insulation monitoring	Rear of inverter unit DC cabinet	PL	Sampling of branch currents: branch breaker tripping control; test of impedance of DC positive/negative pole to ground; RS485 communication
5	BP00213 9	DC charging/discharging board	Rear of inverter	PZ	In SVG mode, charging of DC bus; discharging of DC bus after disconnection of AC/DC inputs

No	Code	Name of PCB	Position	Tagging	Description of functions
			unit DC cabinet		
6	BP001405	Standby power supply box	Inverter unit right cabinet door	PH	Power supply to communication unit in nighttime low power consumption mode
7	QH000025	Drive board	Power module	/	Used for power tube drive signal conditioning and drive
8	BP001862	LVRT power supply box	Rear of inverter unit DC cabinet	PE	AC/DC dual input redundant power supply, for PCBs and AC contactors
9	BP002013	General control board	Power distribution cabinet	PA	Used for monitoring of status of AC power distribution cabinet and acquisition of temperature and humidity data
10	BP002632	Smart unit I/O	Power distribution cabinet	PD	Responsible for communication with inverter unit, touch screen, and background; communication with external equipment (combiner box, transformer box etc.) can be integrated
11	BP001960	Temperature and humidity	Power distribution cabinet	PV	Used for measuring temperature and humidity inside turnkey station