

Off-Grid Inverter

BV1-1K548L1 / 3K48L1

The BV1 Solar Inverter series from Livoltek is a brand-new, versatile all-in-one solar inverter designed for off-grid, Energy Storage System (ESS), and self-consumption applications. This innovative unit integrates a pure sine wave inverter, an MPPT solar charge controller, and a high-speed automatic transfer switch into a compact casing. It features an enhanced display interface and an improved human-machine interface for easier operation. Compared to the previous BV1 series, the new model offers higher PV open circuit voltage, increased PV charging power, and current capabilities. An optional feature allows it to operate without a battery, utilizing solar energy directly to power loads. The system is scalable; you can initiate with a comprehensive setup or opt for a smaller solution and expand it gradually to align with your specific requirements and budget constraints.

Features

- Max inverter efficiency 94%, max MPP tracker efficiency 98%
- All-in-one, plug and play design for easy installation
- Versatile for solar off-grid, and backup power system
- 1 MPP tracker for all models
- Built-in ECO Mode to prolong the battery backup time
- Support parallel and three-phase up to 13.5kVA (1.5Kva model with parallel board required)
- Transformer-based, easily withstand the initial surge current



Technical Specification

Model	BV1-1K548L1		BV1-3K48L1	
Inverter				
Rated battery voltage	48VDC			
Rated AC voltage	127VAC			
Rated AC frequency	60Hz			
Rated AC current	12A		24A	
Rated power	1500W		3000W	
Peak power	3000W		6000W	
Maximum efficiency	93%		93%	
Zero load power (W)	13		13	
Solar Charge Controller				
Max. PV charge current	40A			
Max. PV open circuit voltage	150V			
Max. PV power	2000W			
MPPT voltage range	65V - 145V			
Number of MPPT trackers	1			
Max. PV input current per tracker	36A			
Max. PV short circuit current per tracker	40A			
General Data				
Protection	Output short circuit, Overload, Battery voltage too high, Battery voltage too low, Temperature too high, PV reverse polarity			
ComSync In port (BMS communication)	CAN			
ComMON communication	RS485			
ComMON power	12V / 600mA (1000mA peak)			
Operating temperature range	0°C to 40°C			
Relative humidity in operation	95% without condensation			
Altitude	< 2000m			
Dimensions(W*H*D)	499*272*144 mm			
Net Weight	13kg		18kg	
Cooling	Forced Fan			
Protection index	IP20			
Certification	ORDINANCE No.140 (INMETRO)			