

BSL Power BS1600W-12V Inverter Datasheet

1.6KW Continuous Power / 12Vdc to 230Vac / Ultra-Slim Professional Grade

Model: BS1600W-12V | Version: V1.0 (Technical Release) | R&D:: smz@bslpower.cn

1. Product Overview

The **BSL Power BS1600W-12V** is an ultra-slim, ARM-controlled power system designed for small home storage and mobile fleets. With a peak efficiency of **>= 91%** and a profile of only **75mm**, it offers industry-leading power density. Features high-frequency isolation and full digital protection circuits for maximum user safety.

Core Highlights:

- **Pure Sine Wave:** Ultra-stable 230Vac with <3% THD.
- **1800W Constant Power:** Intelligently manages overload surge without tripping.
- **Conformal PCB Coating:** Moisture and dust-proof (■■/■■/■■■) for long-term 24/7 reliability.



2. AC Output Specifications

Parameter	Min	Typ	Max	Unit	Remarks
Rated Output Power	—	1600	—	W	Continuous load at +25°C
Peak Surge Power	—	3200	—	W	≤ 100ms startup support
AC Output Voltage	210	230	235	Vac	Pure Sine Wave
Output Frequency	49.9	50.0	50.1	Hz	DSP crystal locked
Max Efficiency	—	91%	—	%	Soft-switching topology

3. DC Input Specifications

Parameter	Min	Typ	Max	Unit	Remarks
Nominal Voltage	—	12.0	—	Vdc	Standard 12V Battery Banks
Input Range	10.0	12.0	15.0	Vdc	Maintained operation range
Under-Voltage Cutoff	—	9.5	—	Vdc	Auto-recovery at 10.5Vdc
Over-Voltage Cutoff	—	15.0	—	Vdc	Protection shutdown triggered

4. Physical & General Standards

Cooling & Comms	Forced Air Cooling (Dual Smart Fans) / UART Communication
Safety Isolation	1500Vac / 1 minute (Input to Output, no breakdown)
Dimensions & Weight	280 x 160 x 75 mm / <= 2.0 kg (Ultra-Slim)
Protections	Short-circuit, Overload (1800W), Over-temp (95°C), IP20
Reliability (MTBF)	>= 400,000 Hours with Conformal Coating