

BSL Power TK1000-24V Truck OEM Inverter

1KW Continuous Power / 24Vdc to 220Vac / In-Dash Professional Mounting

Model: TK1000-24V (Truck Edition) | Release: July 2026 | Support: smz@bslpower.cn

1. Product Overview & OEM Capabilities

The **BSL Power TK1000-24V** is a specialized power solution designed for heavy-duty trucks and fleet management. Engineered for **front-loading installation** (under the dashboard), it provides truck drivers with a reliable 220V AC power source directly integrated into the vehicle's cockpit. Featuring a rugged industrial-grade black enclosure, this unit supports **full shell customization** and OEM branding for fleet owners and vehicle manufacturers. Equipped with Infineon MCUs and ZVS/ZCS soft-switching technology, it delivers high efficiency and minimal electromagnetic interference (EMI).

Key Features for Truckers:

- True 1000W Output:** Sustained continuous power at 50°C, capable of running truck appliances safely.
- In-Dash Integration:** Compact profile designed for mounting beneath the control console.
- Customizable Housing:** Enclosure and branding can be tailored to match specific truck interiors or company standards.
- Pure Sine Wave:** Clean 220Vac output with <4% THD, safe for sensitive communication and computing gear.
- European Standard (Schuko):** Reliable plug interface for universal compatibility in CIS and Europe.



2. AC Output Specifications

Parameter	Min	Typ	Max	Unit	Remarks
Rated Output Power	—	1000	—	W	True continuous power at 50°C
AC Output Voltage	210	220	230	Vac	Pure Sine Wave output
Output Frequency	49	50	51	Hz	Precision DSP frequency control
Voltage THD	—	—	4%	%	Clean wave for sensitive electronics
Max Efficiency	—	90%	—	%	Soft-switching ZVS/ZCS technology
USB Output	4.75	5.0	5.25	V	Integrated 2.1A charging port

3. DC Input Specifications

Parameter	Min	Typ	Max	Unit	Remarks
Nominal Input Voltage	—	24.0	—	Vdc	Standard Heavy Truck Battery System
Working Input Range	22.0	27.0	31.0	Vdc	Maintained voltage range
ACC Level Threshold	17.0	—	—	Vdc	IG-ON signal line requirement
Under-Voltage Cutoff	—	22.0	—	Vdc	Protects vehicle battery from drain
Over-Voltage Cutoff	—	31.0	—	Vdc	Automatic circuit protection

4. Protection & Diagnostics (Fault Codes)

Code	Status	Resolution
E01	Input Under-Voltage	Battery low. Check vehicle power system.
E02	Input Over-Voltage	Input exceeded 31V. Disconnect external chargers.
E03	Output Overload	Load exceeded 1100W. Reduce AC appliance load.
E04	Over-Temperature	Internal heatsink >100°C. Check airflow and fan.
E05	Short-Circuit	External AC short detected. Unit shut down for safety.

5. General & Physical Specs

Working Temp.	-40°C to +70°C (De-rate above 50°C)
Dimensions	298 x 105.2 x 102 mm
Net Weight	2.1 kg
Mounting	Dashboard Under-Mount (Front-loading compatible)
Customization	Enclosure color, branding, and shell geometry available
Sample Availability	Available Early July 2026

Developed by BSL Power Fleet Solutions. For OEM inquiries or sample requests, contact: smz@bslpower.cn.