
MEAN WELL – NPB-750-48 – 48V CANBus charger

Reference : MEA-NPB-750-48-750W

Brand : MEAN WELL

Options :

No variants

3D Model : Available

EAN-13 : 3701234567891

The MEAN WELL NPB-750-48 is a high-reliability smart battery charger (~750W class) designed for 48V systems. It provides selectable 2- or 3-stage charging profiles (built-in curves + programmable profile), a wide charge voltage range (42–80V), and system-level control/monitoring interfaces (CANBus, logic I/O). For 16S LiFePO4 packs (48V nominal), the built-in “AGM/LiFePO4” preset targets a typical end-of-charge voltage of 58.4V, provided the final settings match the battery/BMS manufacturer recommendations.

Overview

- 48V model: 42–80V charge voltage range, 11.3A max (CC), ~759W max.
- 2- or 3-stage charging (DIP switch) + programmable parameters (CC/CV/FV/TC, timeouts).
- Built-in LiFePO4 preset (“AGM/LiFePO4”): Vboost typically 58.4V.
- Auto-ranging (advanced mode) for lithium batteries with BMS.
- Interfaces: CANBus, Remote ON/OFF, TTL “Battery Full” and “Charger OK”, NTC (RTH).
- Protections: short-circuit, over-voltage, input under-voltage, battery under/over-voltage, over-temperature, reverse polarity.

System integration (LiFePO4 16S focus)

Typical use: 16S LiFePO4 packs (48V nominal) with BMS. A common end-of-charge voltage is around **58.4V** (16×3.65V). The NPB-750-48 supports this via the LiFePO4 preset and its 42–80V charge voltage window.

Integration note: final settings must follow **the battery/BMS manufacturer recommendations**. Validate on a test bench if needed.

- If float is not desired: use 2-stage mode or program FV (float) per your BMS/battery strategy.
- With 11.3A max, check the intended C-rate vs capacity.

Charging profiles & settings

The charger provides **2-stage** (CC → CV) or **3-stage** (CC → CV → Float) charging. Built-in curves are selected via DIP switch; a profile can be customized (SBP-001 and/or CANBus depending on integration).

Preset (48V model)	Vboost typ.	Vfloat typ. (3-stage)	Note
Default / programmable	57.6V	55.2V	Factory baseline, adjustable
Gel	56.0V	54.4V	Lead-acid profile
Flooded	56.8V	53.6V	Lead-acid profile
AGM / LiFePO4	58.4V	56.0V	Suitable for 16S LiFePO4 (validate vs BMS)

Preset voltage tolerance: typically ±2%.

Interfaces & control

- **CANBus:** control & monitoring (Vo, Io, curve, internal temperature, output ON/OFF).
- **Remote ON/OFF:** dry contact input.
- **TTL outputs:** Battery Full / Charger OK.
- **NTC (RTH):** optional battery temperature compensation.
- **Cooling:** temperature-driven fan control.

Protections

- Short-circuit, over-voltage, input under-voltage, battery under/over-voltage, over-temperature, reverse polarity protection.

Specifications (NPB-750-48)

Max power ~759W

Max charge current (CC) 11.3A

Charge voltage range 42–80V

AC/DC input 90–264VAC / 127–370VDC

Efficiency (typ.) ~93%

Mechanical & environmental

Dimensions (L*W*H) 230 × 158 × 67mm

Mass ~1.84kg

Operating temperature -30 to +70°C (derating)

Cooling Temperature-controlled fan

Compliance & warranty

- Declared marks/certifications: CE, UKCA, UL, EAC, DEKRA.

- Manufacturer warranty: 3 years.

Official accessories & ecosystem

- **SBP-001 Smart Battery Programmer**: official programming tool for curve/parameters.
- **CANBus**: system supervision/control integration.
- No accessory is required for standard DIP-based operation.

Installation best practices

- Install in a dry, ventilated indoor area.
- Keep charger-to-battery cables short to reduce voltage drop.
- Ensure PE connection and adequate cable sizing.
- Validate BMS behavior prior to commissioning.

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