



TBB Power Co., Ltd

sales@tbbpower.com

www.tbbpowermobile.com

#15, North Shishan Road, Dongfu, Xiamen, China



MEZZO

Electrical system for motorhome and campervan



SYSTEM SOLUTION

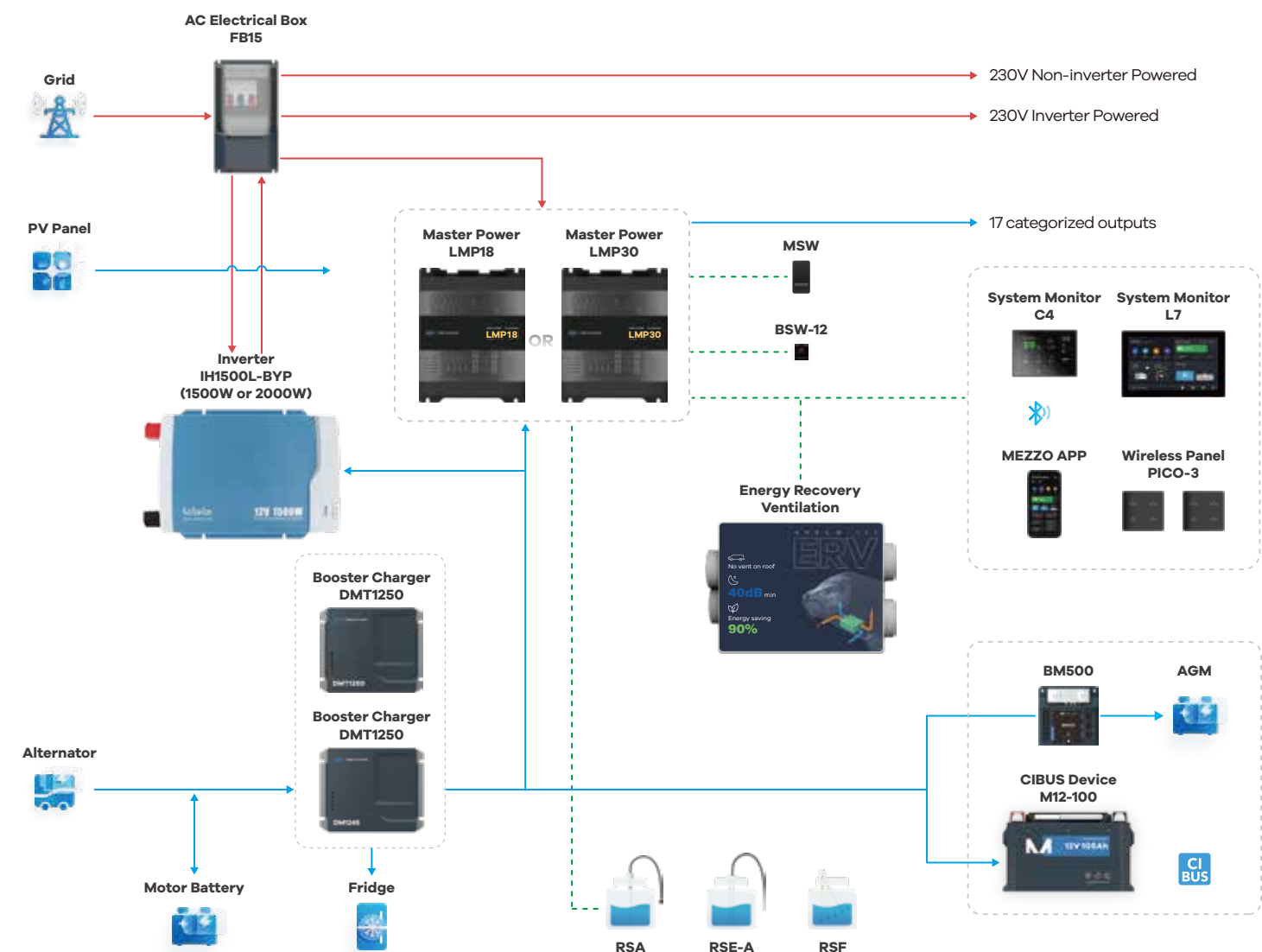
TBB's MEZZO is designed for motorhome or camper van, with many new technologies applied, including digital switching, wireless switch, Bluetooth, lithium battery, etc. With an integrated master power module, it will significantly reduce valuable space, time and cost of motorhome builder.

SYSTEM HIGHLIGHTS

- A highly integrated master power module with built in battery charger, solar charge controller, battery management, digital switching and water tank measurement
- CVP or C4 can be selected as system monitor, both have Bluetooth connectivity to support mobile APP
- Wireless switch panel was designed to simplify cable harness
- Booster charger with two output design
- High frequency inverter with by-pass output is competent to power most AC equipments on board such as coffee maker, microwave, hair dryer etc.
- High performance lithium battery works perfectly with 1500W inverter
- AC electrical box to protect AC input and output circuit both
- Plug and play, reduce installation time by 85%



// SYSTEM SCHEMATIC //



MOTORHOME ELECTRICAL SOLUTION

SYSTEM MODULE



Master power module LMP30 / LMP18

- AC charger 30A or 18A
- Solar charge controller 15A
- Water tank measurement
- Built-in BLVP to cut off load from battery
- 17 outputs for DC load smart management
 - 1 output for footstep control
 - 10 outputs for general loads
 - 3 D+ simulated outputs
 - 3 dry contact outputs
- TBB premium II charging algorithm to charge lead acid battery properly
- Lithium battery compatible
- Automotive grade connector to guarantee connection



Booster charger DMT1250

- With dual outputs and total output current 50A
 - 30A to charge auxiliary battery (charge power programmable)
 - 20A to power AES fridge
- Non-isolation design with max efficiency 96%
- Euro-6 engine (Smart alternator) compatible
- TBB premium II multistage charging algorithm for various chemicals
- Lithium battery compatible
- Built in automatic temperature compensation
- With Phoenix type connector for Plug and Play
- Natural cooling without fan
- Booster charger only 12V30A or 12V45A is optional



System monitor C4

A stylish monitor, offers the approach for user to access critical information at a glance and to control the load at the touch of a finger

- 4.3" LCD with resolution 480 x 270px
- Built in Bluetooth to support mobile APP
- Display battery data, inverter data, water tank level etc.



Wireless Switch PICO II

- RF wireless technology, great saving on cable harness
- The button name is printed
- Black and White color is available
- Built in lithium cell battery
- Surface mounting
- Dimension 72 x 72 x 11.5mm



System monitor L7

- 7" LCD with resolution 1024 x 600px
- Built in Bluetooth to support mobile APP
- Display battery data, inverter data, water tank level etc.



Battery shunt BM500

- Measured current is up to 500A
- Compatible with AGM, GEL or LFP battery
- Contact ratings 2A@30Vdc or 0.5A@125Vac
- Measurement accuracy

Current: +/- 0.4%

Voltage: +/-0.3%



High performance lithium battery M12-100



- Long cycle life, over 3000 cycles at 100% DoD @25°C
- Supports max discharge current 150A
- Supports parallel connection up to 8pcs
- Built-in BMS with automatic balancing and complete protection
- Built-in high precision ($\pm 0.1A$) shunt for SOC calculation
- Built-in heater element to support battery be charged at temperature $-30^{\circ}C$
- Special designed BMS to reduce idle power by 90% ($< 0.1mA$) upon battery turns off
- Predebugged BMS software compatible with TBB power system to assure designed lifespan of lithium battery
- Supports CAN and RS485 communication
- Supports remote battery switch

Size: **310*165*187mm**

Weight: **11kgs**

Remote battery switch



- A latching switch to turn M12-100 ON/OFF remotely
 - Connected with battery by communication cable
 - Could be installed at any location with easy access



High frequency inverter IH1500L-BYP

- Pure sine wave output
- With by-pass output and built-in ground relay
- Rated power 1500W and full power output even at 35°C
- AC in and one of AC out are WAGO terminal for quick connection
- High efficiency up to 90%
- With USB charger, 5V2A
- With dry contact input



AC electrical box FB15

- With 2pcs RCCB 30mA, 16A: one for shore power input and one for inverter output
- With 1pc CB 16A for AC equipment on-grid only
- Input/output designed as WAGO terminal for quick installation

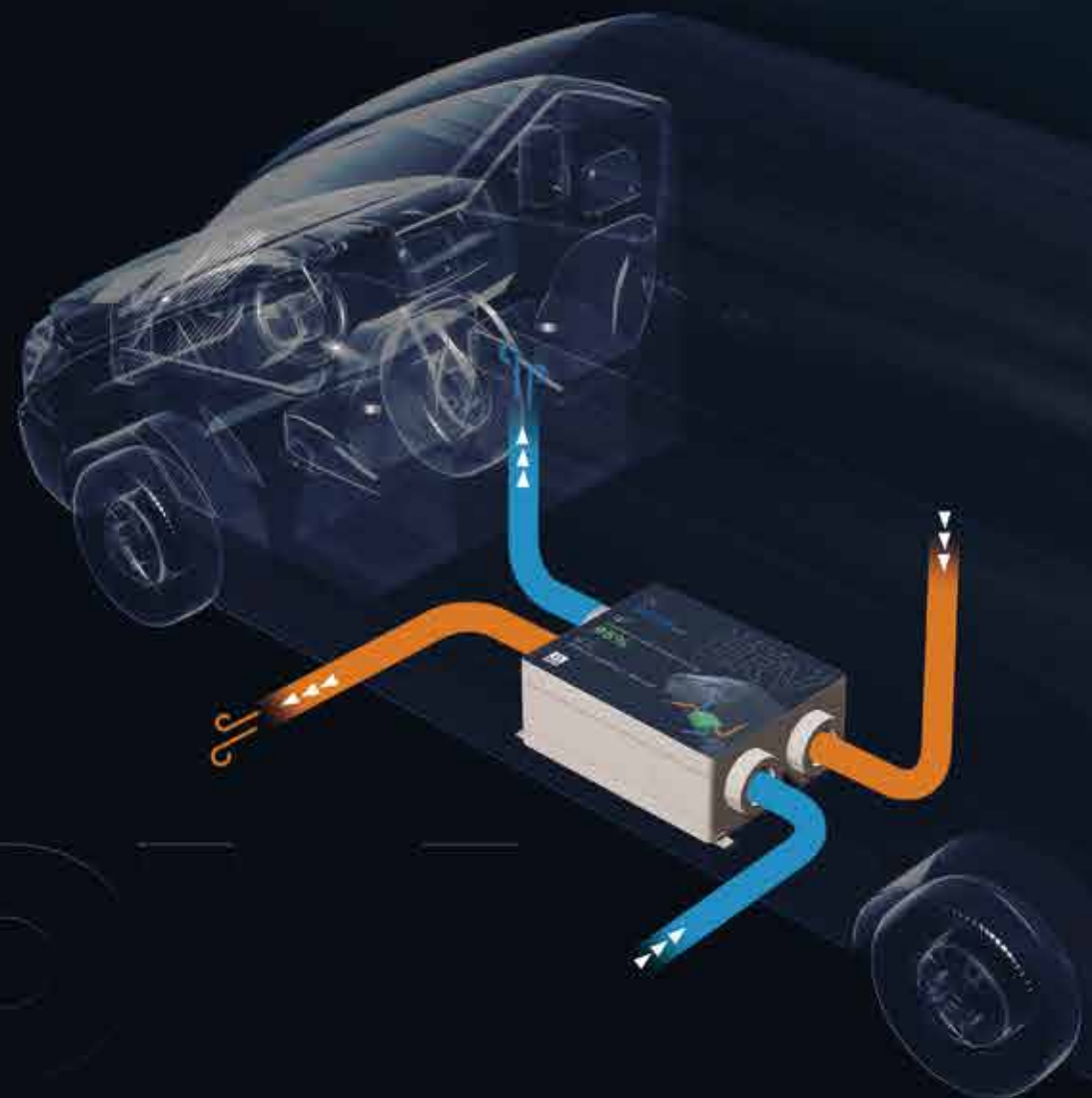


Water tank sensor RSA

- Measurement level 0%, 25%, 50%, 75% and 100%
- Top installation
- Probe length can be tailor-made to fit tank depth

ARROW

Energy Recovery Ventilation
For Motorhome and Campervan



ENERGY RECOVERY VENTILATION ▾

TBB Arrow Energy Recovery Ventilation aims to create nature-like clean air and a cozy environment by exchanging indoor/outdoor air and generating anion.

With a lightweight & compact design, the Arrow Energy Recovery Ventilation ensures fresh air in the RV through intelligent automatic ventilation without the limitation of the weather and the surroundings, purifying the inside air in a low noise, high air volume, and energy-saving way.



40dB min



Freshen air with energy saving

95%



Without opening in the roof

CI
BUS

FEATURE HIGHLIGHTS ▾



Clean Air in 40 dBs Low Noise

With 40dB low noise in ECO mode, the TBB Arrow smart vehicle fresh air system delivers 40m³/h of air ventilation, defending your comfortable sleeping.

The monitoring of CO₂ concentration and automatic ventilation effectively reduce the concentration (<700ppm) in time, and negative air ionization therapy purifies the air in ≥4000000pcs/cm³. Say goodbye to air conditioning disease and adverse reactions caused by CO₂ concentration in a small space.



Hands-Free with Everything under Control

When the RV's air index and CO₂ index are lower than the quality standard, the TBB sensor will automatically trigger the fresh air system to ventilate the air in time, ensuring the air quality and defending the health intelligently even in situations un convenient to open doors and windows, like in sleeping, driving or lousy weather.

Compatible with CIBUS, the air ventilation can be operated on the upgraded human-machine interface of the TBB monitor, which is more intuitive, convenient, and efficient.



RV-Friendly Installation & User-Friendly Operation

Easy installation without opening the roof saves enough space for solar panels or raised roof tents. The compact design and ultra-lightweight materials greatly save the installation space and balance the entire vehicle's weight.

Ensure fresh air in the RV anywhere and anytime, without the limitation of the weather and the surroundings that are inconvenient to open the windows.



Boost Efficiency & Save 95 % of Energy

The heat exchange center of the system balances the temperature and humidity while purifying the air, with nearly 95% lower power consumption than in-car air conditioners, reducing energy loss and prolonging the system's service life.

The system complies with the EMC of the referred laboratory by the German Association of the Automotive Industry, which is reliable and safe for daily traveling.

▾ SPECIFICATION

PROJECT

Appearance dimensions

Working voltage

Working current

Noise

Ventilation

Heat Exchange Rate

PM2.5 filtration efficiency

Antibacterial effect

Formaldehyde removal efficacy

Working temperature

Storage temperature

PARAMETER

440*300*150mm

DC 12V

≤ 2.5A (12V Working condition)

35~70dB

122m³/h

82~85%

99.97%

98%

75%

-20℃~70℃

-30℃~80℃

EXPLANATION

Based on the actual data, metal spray paint shell

/

The maximum air volume of the double fan

/

/

The rate in winter is slightly lower than in the summer

/

Filtration effect for 0.3-micron particles

/

Normal open working environment

Normal open working environment

