



POWER BATTERY PACK TRAINING BENCH



AUTOTRONICS - DEMONSTRATORS

DL DM42

LEARNING EXPERIENCE

This demonstration panel is designed for the study of a lithium iron phosphate power battery pack. A single battery 3.2V 50AH is supplied with aluminum square case, 23 strands in total, 73.6V 50AH of total capacity (3.7 kilowatt-hour) and integrated BMS battery management system.

The device gives the opportunity to develop students' ability to analyse and process the failures of lithium iron phosphate power battery pack.

GENERAL CHARACTERISTICS

- Dim. mm (HxLxW) : 1800x1200x1200
- Weight approx. 200 kg
- Input power supply: A.C. 220V \pm 10% 50Hz
- Operating voltage: 12V DC
- Operating functioning temperature: -40°C to +50°C

MAIN CHARACTERISTICS

All main components are installed on a bench, with the same electrical connection mode as in real vehicles, convenient for assembly and disassembly.

Main components:

- Detection control panel (with various detection terminals)
- Lithium iron phosphate power battery pack
- BMS Battery Management System
- Display screen to show the real time details about power battery pack
- Vehicle-mounted charger and charging plug
- Emergency power switch
- DC-DC (From 72v DC to 12v DC) converter
- Auxiliary accumulator
- Electric discharge control relay
- Movable framework



ACCESSORIES

Suggested instruments for best practice:

- Digital Multimeter (not included)

Students can learn the disassembly points and safety protection of high voltage system components during disassembling and assembling connections.

It closely represents the construction and control relationship, installation position, and operating parameters of key components of the lithium iron phosphate power battery pack. It helps trainees to develop the fault analysis and processing skills about the power battery pack.

OTHER CHARACTERISTICS

- The connecting lines can be scanned with the help of a two-dimensional code, after which, their assembly and disassembly methods and precautions can be completely demonstrated on the screen.
- The power battery pack display is installed on the teaching board to help students to observe the parameters in the charging and discharging process and master the control logic of the charging and discharging process and the law of parametric variation of main components. With the help of a smart switch, the control logic of the charging and discharging process can be reproduced on the screen.
- The training bench consists of a bench and a teaching board. The bench is placed horizontally for installing main components while the teaching board is placed vertically and connected with the bench with screws.
- 4 wheels are mounted for moving flexibly, which also have self-lock device for fixing position.
- The top cover of the power battery pack is transparent so students can observe the internal structure easily.
- A mechanical maintenance switch is built in the power battery pack. It can be observed by opening the cover when the mechanical maintenance switch is pulled out.
- The external line of the power battery pack is equipped with an additional mechanical disconnecting emergency switch, suitable for easily disconnecting the main power supply circuit in emergency circumstances.