

ECB240

Charge, Discharge, and Equalize All-in-One Machine

ECB240 is a high-power, high-current, charging, discharging and equalization integrated maintenance equipment designed specifically for large-capacity battery packs. It supports efficient charging and discharging and multi-channel cell equalization to improve battery pack maintenance efficiency.



Charging/discharging/equalization function three in one



40A charging/20A discharging for fast charging and discharging



24 channels of efficient and precise equalization



Multiple safety protections such as overtemperature



Features

1. Supports a maximum charging current of 40A and a maximum discharging current of 20A, greatly improving the efficiency of charging, discharging and cell equalization.
2. The maximum charging power is 3.2KW, and the maximum discharging power is 2.4KW, with strong power output capability.
3. Supports three working modes: charging, discharging and equalization.
4. Supports 24-channel cell synchronization equalization.
5. Support overvoltage, overcurrent, reverse polarity and other protection mechanisms.

Functions

- 1. Precise cell equalization:** Supports three working modes: charging, discharging and equalization, 24-channel battery cell synchronous equalization, and is compatible with mainstream battery types such as ternary lithium, lithium iron phosphate, and lithium titanate.
- 2. High-current efficient charging and discharging:** Supports 40A charging and 20A discharging currents, quickly adjusts the battery cells to the target voltage, and meets the fast charging and discharging requirements of the battery pack.
- 3. Multiple security protections:** Built-in overvoltage, undervoltage, overcurrent, short circuit, reverse connection and over-temperature protection mechanisms ensure the safe operation of the device and battery.
- 4. Data visualization:** Real-time monitoring of cell voltage, current, and pressure differential during operation, automatically saving data and supporting comparison analysis with line charts/bar charts. One-click generation of exportable test reports.
- 5. Custom parameter settings:** Preset target voltage, operating current, and other key parameters to flexibly adapt to different maintenance needs.
- 6. OTA remote upgrade:** Supports online firmware upgrades, eliminating the need for local USB flash drive operations, and continuously iteratively optimizes functions.

Parameters

Power input	AC 100~240V/50-60Hz
Battery module voltage range	DC 0-112V
Cell voltage range	1.6~5V
Charging current range	0.5~40A, maximum power 3.2kW
Discharge current range	0.1-20A, maximum power 2.4kW
Single cell voltage accuracy	±0.1%FS±5mV(maximum range 5V)
Single cell current accuracy	±0.5%FS ±0.05A (maximum range 20A)
Communication interface	WIFI, Bluetooth, USB, RJ45 network port
Display	10.1 inches, resolution 1280×800

Equalization channels	2×12
Equalization interface	12PIN×1, 13PIN×1
Charging control	Constant voltage charging, constant current charging
Discharge control	Constant current discharge, constant voltage discharge
Battery module charge and discharge protection	Battery module overcharge and over-discharge protection, over-temperature protection
Reverse polarity protection	Support
Over-temperature protection	Cooling box over-temperature 85°C protection
Host protection	Over-temperature, over-current, and current out-of-control trigger shutdown protection
Abnormal protection	Power line power failure, main cable power failure