XB7100

Winding Power Battery X-Ray Inspection Machine

This device achieves online fully automatic detection of multi-layer wound power batteries, interfaces with upstream and downstream logistics lines, automatically takes the battery cells, puts them into the equipment for detection, and automatically sorts NG products. OK products are automatically taken out, output to the logistics line, and enter down stream equipment.

Product Features

Fully Automatic Detection:
Connect upstream and downstream equipment, conduct online automatic inspection and judgment, and automatically sort out defective products; Equipped with in-situ retesting function, optional with automatic reflux retesting function.

Real Time Monitoring:
All actions, signals and hardware status of the equipment are monitored in real time to facilitate product quality data analysis and safety production control.

Safety and Environmental Protection:
The device has safety interlocking and multiple protection functions, and any component on the surface of the body meets national safety radiation standards.

Easy to Operate:
The software interface is user-friendly, with one click model replacement and troubleshooting, and configured with permission management functions, making it easy to get started and improving work efficiency.

Image and Detection Data:
The battery test images and test data are saved together and can be displayed together in the software interface for easy viewing and analysis.

Device Functions

- Automatic code scanning, MES interaction, and data upload;
- Automatic loading, unloading, and NG sorting (optional to add NG automatic reflux retesting);
- Corner Overhang, Fold, Crack, Large Surface Folds, Tab Pulling Pins.

Operational Applications
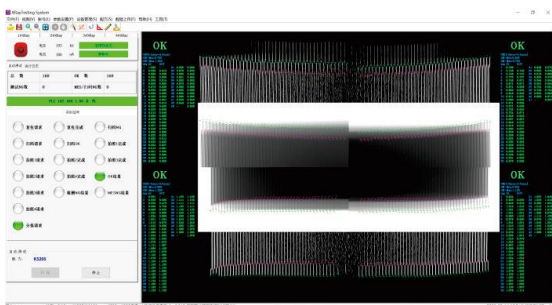
Technical Parameter

Size	5460mm*2600mm*2800mm
Beat	≥26PPM and above (2 or 4 corners)
Excellence Rate	≥99.5%
Equipment Failure Rate(DT)	≤2%
Overkill Rate	≤1%
Missed Kill Rate	≤0%
MTBT	≥8H
Incoming Material Method	From Logistics Lines
Radiation Safety Standards	≤1μSV/hr
Detector	Flat Panel Detector
Photo Time	≥0.7S

X-Ray Tube Parameters

Tube Voltage Range	40-90KV/40-130KV
Tube Current Range	10-200uA/10-300uA

Inspection Efficiency and Accuracy Parameters

Inspection Accuracy	15μm
Repetitive Testing Accuracy	±30μm

Other Parameters

Type Change Time	The replacement time for old varieties is ≤ 2 hours/ per person; The replacement time for new varieties is ≤ 4 hours/ per person.
Compatible Ranges	Height:70 ~220mm；Width:80 ~260mm；Thickness:5 ~25mm (or customize all models on the market)
Detection Content	Corner Overhang, detection of large surface Fold, pole ear needle pulling

Adjustable Range of Imaging Distance

- **Diagonal Overhang Inspection:** The distance from the flat panel detector to the surface of the cell: 150~350mm, and the distance from the light outlet of the light tube to the surface of the cell: 20~320mm;
- **Wrinkle Inspection:** The distance between the flat panel detector and the surface of the battery cell is 150~150mm, and the light outlet of the light tube is connected to the battery surface distance: 150~350mm.

Applications