SMART SAFE

EV MAINTENANCE EQUIPMENT BY SERENCO

SERENCO

SERIOUS TOOLS SERIOUS RESULTS

EN BROCHURE 2025

SmartSafe by Serenco

With the rapid development of the electric vehicle market, it is essential for the automotive maintenance industry to continuously improve the maintenance level of electric vehicles to ensure the sustainable growth of the market. To improve the maintenance level of electric vehicles, it is crucial to have a good understanding of the current state of electric vehicle maintenance technology, including the operating principles of electric vehicles such as their power control and propulsion mechanical systems.

SmartSafe has launched a range of products aimed at troubleshooting electric vehicle failures. The product line includes equipment such as iSmartEV electric vehicle detection, iSmartEV electric vehicle maintenance, rapid vehicle inspection and vehicle battery maintenance, et cetera.

Serenco has been around for more than 35 years and that is not without a reason:

- Serenco is a leading supplier of professional tools and equipment
- For the automotive and bicycle market and the industrial environment
- More than 2.500 high quality products in stock
- Fast delivery from our central warehouse to customers in over 48 countries
- All Serenco employees are knowledgeable, service-oriented and above all: proud!

LET'S GET SERIOUS.

SMARTSAFE
EV MAINTENANCE EQUIPMENT BY SERENCO

P01 Diagnostic tester
ISE-30041

High-performance diagnostic tester for electric vehicle batteries (optionally expandable with software package for vehicle diagnostics, engine management, ABS, ADAS calibration processes, etc.).

The P01 supports reading out the current SOC/SOH, the individual/module voltage, the input/output current and the power as well as the battery temperature and other battery parameters. Readout of battery data by connecting to the fast charge port for quick detection of battery packs. Supports detailed status readout. Supports reading detailed status and fault information of the battery pack, automatically calculates important index data such as total voltage, voltage difference, maximum/minimum voltage and automatically marks abnormal data.

Features
- Covers more than 95% of the current EV fleet, the software is updated regularly, the first 2 years are included.
- Supports testing of DC/DC converter, integrated charger, high voltage control unit and other common maintenance functions.
- Provides four methods for connecting the battery module, including OBDII, a dedicated battery connector by brand, a jumper connection and, in the future, a charging port connection.
- Features a professional standard battery connector and an integrated aviation connector to improve detection efficiency.
- Dual WIFI design: the host is connected to the VCI via independent WIFI, and the VCI does not interfere with the host's Internet access during operation.

Technical specifications
- Screen size: 10.1 inch (1920x1200)
- CPU: 2.0 GHz Octa-Core
- Cortex-A7 + Cortex-M7
- Memory: 4 GB
- Memory: 128 GB
- Operating system: Android 11
- Wi-Fi: 2.4 GHz/5GHz
- Camera: front 8 MP, rear 13 MP
- Battery: 3.8 V/9360 mAh
- Interface: Type A, Type C
- Communication: Wi-Fi, BT, USB
- Dimensions: 318x40.5x246.5 mm

VCI
- Voltage: DC 9-36 V
- CPU: Cortex-A7 + Cortex-M7
- Memory: 256 MB
- Memory: 8 GB
- Operating system: Linux
- Wi-Fi: 2.4GHz/5GHz
- Communication: Wi-Fi, BT, USB
- Interface: USB type B, OBD II-16, DC-IN
- Dimensions: 197x40x83 mm

P03 EV Integrated detection tool

ISE-30047

The ISE-30047 is a professional-grade EV integrated detection tool that combines battery pack detection, whole vehicle system detection, and common maintenance functions. It features 4 built-in detection tools, including an oscilloscope, multimeter, insulation tester, and current clamp.

Features

- Built-in with 4 common detection tools, including an oscilloscope, multimeter, insulation tester, and current clamp, covering common measurement requirements in the maintenance of EV battery packs.
- Covers more than 95% of the entire EV system, with continuous updates.
- Supports testing of DC/DC converters, onboard chargers, high-voltage distribution boxes, and other common maintenance functions.
- Provides four battery pack connection methods, including OBD, special connector, jumper connection, and fast-charging port connection.
- Equipped with a professional battery pack connector as standard, and includes an integrated aviation plug connector to improve detection efficiency.
- Supports ADAS calibration, tread detection, insulation testing, oscilloscope, digital power supply, multimeter, current clamp, videoscope, and other expansion modules.
- Dual Wi-Fi design: The host is connected to the VCI via independent Wi-Fi, allowing the VCI to connect to the Internet without affecting the host's connection.
- Provides a comprehensive vehicle topological graph, clearly displays the vehicle communication network, and quickly locates fault points.

Technical specifications

- Screen Size: 10.1 inch (1920x1200)
- CPU: 2.0 GHz
- Memory: 8 GB
- Storage: 256 GB
- Operating System: Android 10
- Wi-Fi: 2.4 GHz/5 GHz
- Camera: 13.0 MP
- Battery: 3.7 V/18720 mAh
- Detection Tools: Oscilloscope, Multimeter, Current Clamp, Insulation Tester
- Interfaces: Type A, Type C
- Communication: Wi-Fi, BT, USB
- Dimensions: 440x120x298 mm

10.1 INCH SCREEN

VCI

- Voltage: DC 9-36 V
- CPU: Cortex-A7 + Cortex-M7
- Memory: 256 MB
- Storage: 8 GB
- Operating System: Linux
- Wi-Fi: 2.4 GHz/5 GHz
- Communication: Wi-Fi, BT, USB
- Interfaces: USB Type B, OBD II-16, DC-IN
- Dimensions: 197x40x83 mm

P13 EV Detection tool

ISE-30067

The ISE-30067 is a "special inspection level" electric vehicle detector that integrates battery pack testing, whole vehicle system testing, anti-theft functions, ADAS, and common maintenance tasks.

Features

- Wide model coverage, supporting full system diagnostics for more than 95% of electric vehicle models, with continuous updates
- Supports offline testing functions for multiple components and various maintenance tasks
- Supports 4 battery pack connection methods, including a special connector for patented battery packs, ensuring high detection efficiency
- Displays a topology map and provides a vehicle topology map, clearly showing vehicle communication networks and quickly locating fault points
- Equipped with a standard remote diagnostic box, supporting super remote functionality and independent Wi-Fi communication
- The AAOS system is deeply customized and supports split-screen display of applications. During vehicle detection, the browser can be used to query data in split-screen mode
- Supports intelligent connection of multiple devices, enabling functions such as four-wheel alignment, tire tread detection, ADAS, anti-theft systems, and EV detection and maintenance equipment
- Allows the merging of multiple device reports, so different detection reports for the same vehicle can be combined into a comprehensive report
- Features a 13.3-inch high-definition display screen with a brand-new industrial design, utilizing state-of-the-art materials and processes, resulting in an ultra-light and ultra-thin body

Technical specifications

- ADAS
- SGW
- CPU: 2.0 GHz Octa-core
- Memory: 8 GB
- Storage: 256 GB
- Operating System: AAOS (Android 10)
- Wi-Fi: 2.4GHz/5GHz dual-band dual Wi-Fi
- Camera: Front 8 MP, Rear 13 MP
- Battery: 13,600 mAh / 3.8 V
- Interface: USB, Type C, DC-IN, Mini HDMI
- Communication: Wi-Fi, BT, USB
- Dimensions: 355.4x227x34.45 mm

13.3 INCH SCREEN

VCI

- CPU: Cortex-A7 + Cortex-M7
- Memory: 256 MB
- Storage: 8 GB
- Operating System: Linux
- Wi-Fi: 2.4 GHz/5 GHz
- Communication: Wi-Fi, BT, USB
- Interface: Type B, RJ45, OBD-II 16, DC-IN
- Dimensions: 192x107.2x42.5 mm

Software Subscription
ISE-301181220

- ICE software for petrol engines (hybrids)
- 1-year subscription
- Software remains on the tool even after the subscription period ends

WEB1224 Modularized Wireless Battery Equalizer

ISE-10002

The ISE-10002 is a split-type balancing maintenance device designed based on the characteristics of lithium battery charging and discharging. It can effectively repair the problem of battery performance degradation caused by excessive cell voltage differences in battery pack modules.

Features

- Separate charging and discharging design, allowing equalization channels to be freely combined, with a maximum of 24 cells balanced simultaneously
- Wireless networking communication enables easy expansion of the number of equalization channels.
- Supports all common lithium batteries on the market.
- Offers two modes: charge-discharge balance and discharge balance.
- Equipped with an isolated high-precision voltage acquisition module for safe, precise, and balanced control.
- Supports SOC (State of Charge) and SOH (State of Health) evaluation to assess battery health status.
- Each battery cell is wired separately and independently, effectively preventing misconnection or incorrect wiring.
- Features a patented clamp design, making wiring more convenient and reliable.

Technical specifications

Device

- Power Input: AC 9060 Hz
- Output Voltage Range: DC 0 ~ 112 V
- Output Voltage Accuracy: < ±1%
- Output Current Range: 1 ~ 40 A
- Operating System: AAOS (Android 10)
- Output Current Accuracy: < ±1%
- Display: 7-inch LCD touch screen, resolution 1024x600
- Dimensions: 306.5x255x261.5 mm

VCI

- Number of Channels: 4 channels
- Discharge Voltage Range: DC 2.8 ~ 4.2 V
- Discharge Current Range: 0 ~ 10 A
- Voltage Measurement Accuracy: < ±1%
- Current Measurement Accuracy: < ±1%
- Communication: Wi-Fi, BT
- Dimensions: 202.5x89.5x105 mm

FOR STARTER

EB240 Battery equaliser

ISE-20026

This Battery Equaliser is a battery maintenance device specially designed for electric vehicles. It is used to quickly solve the reduced driving range caused by differences in cell capacity due to inconsistent cell voltages. The EB40 is characterised by simple operation and stable performance. The EB240 can be used for maintenance to battery packs of EV and hybrid vehicles.

Features

- Can balance up to 24 battery cells simultaneously
- Compatible with all common types of lithium-ion batteries available on the market
- The intelligent balancing function enables individual balancing of battery cells within a battery module, preventing overcharging or discharging of individual cells

Functions

- Capable of balancing up to 24 battery cells simultaneously
- Compatible with all common types of lithium-ion batteries available on the market
- Intelligent balancing function enables individual balancing of battery cells within a battery module, preventing overcharging or discharging of individual cells
- The EB240 battery equaliser supports, charges, discharges and balances lithium-ion batteries such as tertiary ithium, lithium iron phosphate, lithium titanium and lithium manganese
- Parameter configuration: Pre-settable operating modes, battery types, voltage thresholds, operating currents, cell serial numbers and other parameters
- Multiple protection: Provides support for overvoltage, undervoltage, overcurrent, output short circuit, reverse polarity protection and overheating protection
- Data visualisation: Real-time monitoring of voltage, current, charge-discharge status and capacity of individual cells during the balancing process
- Data analysis: Automatically stores historical balancing data, supports data presentation in both graph and bar chart formats
- Data export: Historical data can be exported to a USB drive as an Excel file

Technical specifications

- Power supply: AC 240 V/40 ~ 60 Hz
- Power: maximum 600 W
- Charge/discharge voltage range: 1.8 ~ 4.2 V
- Voltage detection accuracy: 2 mV
- Charge/discharge current range: 0.1 ~ 5 A max
- Current detection accuracy: 0.05 A
- Battery temperature detection accuracy: +/- 2 °C
- Number of channels for balancing: 2x 12Pin
- Balancing interface: 16Pin
- Battery interface: 24Pin
- Communication interface: SMA, USB device

FOR EV-SPECIALIST

EB480 Battery Pack Cell Equalizer

ISE-10008

The ISE-10008 is a high-precision lithium battery equalization maintenance device designed for the charging and discharging of EV lithium batteries. It can effectively repair the issue of reduced cruising range caused by inconsistent battery voltage.

Features

- Supports simultaneous balancing of up to 48 battery cells at maximum capacity
- Compatible with all common types of lithium-ion batteries available on the market
- Independent channel design ensures that each individual cell within the module avoids overcharging or over-discharging

Technical specifications

- Power Input: AC 9060 Hz
- Power: 1200 W Max
- Charge and Discharge Voltage Range: 1.8 ~ 4.5 V
- Voltage Detection Accuracy: ±0.1% FS ±2 mV (maximum range 5 V)
- Charge and Discharge Current Range: 0.1 ~ 5 A Max
- Current Detection Accuracy: ±1% FS ±0.05 A (maximum range 5 A)
- Battery Temperature Detection Accuracy: ±2°C (-25°C ~ 85°C)
- Discharge Mode: Constant current discharging
- Protection Functions: Input over-current protection, over-voltage protection, output over-current protection, over-temperature protection

VCI

- Wireless Communication: Wi-Fi and BT (external Wi-Fi antenna)
- Number of Equalization Channels: 4 x 12 Pin
- Equalization Interface: 26 Pins x2
- Battery Interface: 24 Pin
- Display: 7-inch TFT LCD screen, resolution 1024 x 600
- Communication Interface: SMA, USB-Device
- Charge Control: Constant current charging + constant voltage charging.

FOR BATTERY (EV) SPECIALIST

EB480 Temperature Sensor Sub harness (6 pcs.)

ISE-10022

The ISE-10022 EB480 Temperature Sensor Sub harness, featuring 6 precision sensors, is designed for accurate monitoring of battery temperatures during the balancing process. By carefully tracking temperature variations, this sub harness ensures that your batteries remain within safe and optimal conditions while balancing, thereby enhancing both safety and reliability.

EP260 EV Battery Charge & Discharge Equipment

ISE-20028

The ISE-20028 is a battery pack module integrated charge-discharge machine designed based on the characteristics of lithium-ion batteries used in electrical vehicles. It can efficiently perform the charging, discharging, and balancing of battery pack modules, thereby enhancing the efficiency of battery pack maintenance.

Features

- Utilizes cutting-edge charge-discharge testing technology to prevent interference with the BMS system
- Designed with a wide voltage range and equipped with various built-in charge-discharge modes, meeting the voltage and current requirements of diverse battery pack modules during charge-discharge operations, ensuring safety and enhancing efficiency
- Allows flexible configuration of charge-discharge rules and activation cycles, effectively enhancing battery capacity
- Equipped with safety features including reverse polarity protection, high-temperature alert, over-current protection, fan failure detection, over-voltage warning, and excessive current alert, ensuring hardware safety

Functions

- Single Cell and Group Terminal Voltage Acquisition: Supports real-time acquisition of group terminal voltage and individual cell voltage
- Single Cell Protection: Can set cell current and voltage protection thresholds to prevent overcharging and over-discharging
- Data Visualization: Real-time monitoring of voltage of individual cells, group terminal voltage, group terminal current, charge-discharge status, and capacity during the charge/discharge process
- Data Export: Automatically stores historical charge-discharge records, supports historica[data export to a USB drive as Excel files

Technical specifications

- Powerinput: AC90-264 V/40 ~ 60 Hz
- Display: 7-inch TFT LCD screen,resolution 1024X600
- Data communication: CAN, RS485
- Group terminal voltage accuracy: < ±0.5% FS+0.3 V, resolution: 0.1 V
- Single voltage accuracy: < ±0.1 %FS+SmV, resolution: 0.001 V
- Test current accuracy: < ± 1 %FS+0.2 A, resolution: 0.l A
- Charge and discharge voltage range: DC 2 ~ 260 V
- Charge currentrange: Maximum current 100A, maximum power 4.4 kW
- Discharge current range: Max current: l00 A/ max power:7.2 kW
- Charge control: Constant current charging+ constant voltage charging
- Discharge mode: Constant current discharge
- Charge,discharge protection: Overcharge and over-discharge protection, over-high temperature protection
- Host protection: Over-temperature, over-current and out-of control current trigger shutdown protection
- Reverse polarity protection: Supported
- Abnormal protection: Powercord powerfailure, main cable powerfailure
- Over-temperature protection: The resistance box over-temperature is 8S°C; Radiator over temperature is 100°c

EP401 EV Battery Charge & Discharge Equipment

ISE-10014

The ISE-10014 is an integrated charge-discharge machine designed based on the characteristics of lithium-ion batteries used in electric vehicles. It efficiently performs the charging, discharging, and balancing of battery pack modules, thereby enhancing the efficiency of battery pack maintenance.

Functions

- Supports charging and discharging maintenance of various lithium and nickel-metal hydride batteries.
- Utilizes cutting-edge charge-discharge testing technology to prevent interference with the BMS system.
- Allows flexible configuration of charge-discharge rules and activation cycles, effectively enhancing battery capacity.
- Supports SOC/SOH evaluations to assess battery health status.
- Designed with a wide voltage range and equipped with various built-in charge-discharge modes, meeting the voltage and current requirements of diverse battery pack modules during charge-discharge operations, ensuring safety and enhancing efficiency.

Technical specifications

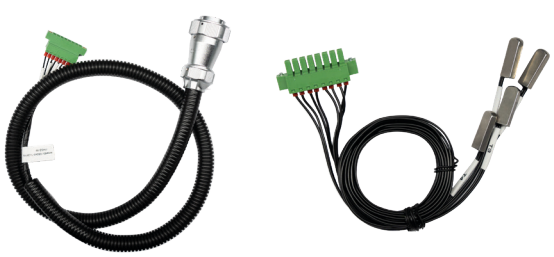
- Power Input: AC 9060 Hz
- Display: 7-inch TFT LCD screen, resolution 1024 x 600
- Data Communication: CAN, RS485
- Group Terminal Voltage Accuracy: ≤±0.5%FS + 0.3 V, resolution: 0.1 V
- Single Voltage Accuracy: ≤±0.1% FS + 5 mV, resolution: 0.001 V
- Test Current Accuracy: ≤±1% FS + 0.2 A, resolution: 0.1 A
- Charge and Discharge Voltage Range: DC 2~420V
- Charge Current Range: Maximum current 100 A, maximum power 4.4 kW
- Discharge Current Range: Maximum current 100 A, maximum power 7.2 kW
- Charge Control: Constant current charging + constant voltage charging
- Discharge Mode: Constant current discharge
- Charge and Discharge Protection: Overcharge and over-discharge protection, over-temperature protection
- Host Protection: Over-temperature, over-current, and out-of-control current trigger shutdown protection
- Reverse Polarity Protection: Supported
- Abnormal Protection: Power cord power failure, main cable power failure
- Over-temperature Protection: Resistance box over-temperature is 85°C; radiator over-temperature is 100°C

FOR BATTERY (EV)
SPECIALIST

EB240 Temperature Sensor Sub harness (4 pcs.)

ISE-10021

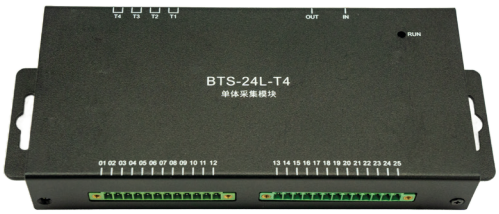
The EB240 Temperature Sensor Sub harness, equipped with four precision sensors, is engineered to monitor battery temperatures during the balancing process. By accurately measuring these temperatures, the sub harness ensures that your battery remains within the optimal temperature range.



EP401 101 Voltage and Temperature Data Collector 25-48

ISE-10023

The EP401 101 & 102 Voltage and Temperature Data Collector is expertly designed to gather crucial battery voltage and temperature data during charge and discharge cycles. By providing accurate, real-time data collection, this device ensures that your batteries perform optimally, enhancing efficiency and safety throughout the charging and discharging processes.



EP401 102 Voltage and Temperature Data Collector 49-72

ISE-10024

DP750 Adjustable Power supply

ISE-30016

This is an ideal adjustable power supply for electric vehicle (EV) and fuel vehicles, it is designed with isolated low- and high-voltage modules to supply both voltages. Can be remotely controlled via Bluetooth to adapt to multiple operating environments. Its purpose is to create a safe, stable and intelligent power supply for various electric vehicle maintenance applications.

In addition to direct control on the DP750, it can also be used with other sensing devices (such as the P01) to operate via a Bluetooth wireless connection.

Features

- High-voltage and low-voltage modules are independently isolated, allowing each module to protect itself during power output without mutual interference.
- Independent protection mechanisms are implemented in the input circuit, high-voltage output circuit and low-voltage output circuit. They can detect faults such as undervoltage, overvoltage, overcurrent and short circuits, leading to corresponding protective measures.
- Compatible with various models of Smartsafe intelligent readout devices, making them suitable for remote control/ monitoring function..

Functions

- Low-voltage output: Supports 12V/24V DC output, switchable via buttons.
- High-voltage output: Supports 250 V ~ 750 V, 0 A ~ 5 A DC output, with adjustable voltage/current via buttons.
- Multiple protection: Includes over- and under-voltage protection on high-voltage input, over-temperature protection on high-voltage output, short-circuit protection, reverse polarity protection and current limitation on low-voltage output.
- Remote control: Can be used with the P01 for remote control/monitoring function via Bluetooth connection.

Technical specifications

- Power supply: AC 240 V/ 40 ~ 60 Hz
- Max power: maximum 3200 W
- Low voltage output: 12/24 V
- High voltage output: 250 ~ 750 V
- Front panel (high voltage): voltage SWK, current SWK, switch button
- Front panel (low voltage): 12 V SWK, 24 V SWK, switch button
- High voltage current: 0 ~ 5 A
- Low voltage current: 1 A
- Protection: short circuit, current limiting, overvoltage, undervoltage and temperature protection

DP901 Adjustable High Voltage Power Supply

ISE-30035

As an upgraded version of the DP750, the DP901 features a high-voltage output range of 50-900V, a low-voltage output range of 0-50V, and a wide voltage output range of 0-900V, making it suitable for a broader range of applications.

Features

- The high-voltage and low-voltage modules are isolated from each other, allowing individual protection for each module during power output without mutual interference.
- Independent protection mechanisms are implemented in the input circuit, high-voltage output circuit, and low-voltage output circuit. These mechanisms can detect faults such as undervoltage, overvoltage, overcurrent, and short circuits, and initiate appropriate protective measures.
- Compatible with various models of Smartsafe intelligent terminals for remote control capabilities.

Functions

- Low Voltage Output: Supports 0-50V, 0-15A DC output, with adjustable voltage and current through knobs.
- High Voltage Output: Supports 50-900V, 0-5A DC output, with adjustable voltage and current through knobs.
- Multiple Protections: Provides high-voltage input overvoltage, undervoltage protection, high-voltage output overtemperature, short circuit, reverse polarity protection, low-voltage output current limiting, and short circuit protection.
- Remote Control: Compatible with ST13/P01/P03 devices, allowing remote operation via Bluetooth connection.

Technical specifications

- Power Supply: AC 100 ~ 240 V @ 20 A
- Maximum Power: 4000 W Max
- High Voltage Output: Voltage: 505 A
- Low Voltage Output: Voltage: 015 A
- Front Panel: High Voltage: Current knob, Voltage knob, High voltage switch button;
  Low Voltage: Current knob, Voltage knob, Low voltage switch button
- Communication: Bluetooth (BT)
- Display: LED Digital Tube
- Protection: Short-circuit, current-limiting, overvoltage, undervoltage, overtemperature
- Working Temperature: -10-65°C
- Size: 395x315x265 mm
- Weight: 11 kg

RT100 Insulation tester

ISE-30024

The RT100 is equipped with powerful measurement and data processing software; therefore, it can complete the measurement of insulation resistance, voltage and other parameters. Its stable performance and easy operation make it suitable for field measurements and maintenance engineers.

Features

- Flexible application: can measure insulation resistance and AC/DC voltage, supports comparison measurement, continuous measurement and time measurement in three modes.
- Wide measurement range: for different output voltages, resistance measurement range can be from 10MΩ to 1000GΩ.
- Intelligent alarm function: low resistance triggers a timely warning to protect personnel and equipment when the limit is exceeded.
- 5-inch LCD backlight: convenient for measurements in low-light environments.
- Automatically switches off without any operation after 15 minutes, saving energy and electricity.

Functions

- Insulation resistance test: supports output voltage range selection of 500 V/1000 V/500 V/5000 V, and supports comparison measurement, continuous measurement and time measurement in three modes.
- Voltage measurement: supports DC and AC voltage measurement.
- Other functions: support LCD backlight, automatic shutdown after 15 minutes without operation, overshoot alarm and high voltage warning.

Technical specifications

- Output voltage: 500 V/1000 V/2500 V/5000 V
- Insulation resistance: 500 V: 10MΩ20GΩ
  1000 V: 10MΩ40G
  2500 V: 10MΩ100GΩ
  5000 V: 10MΩ1000GΩ
- Short-circuit voltage: ±3.0 mA
- DC measurement: ±30 V ~ ±600 V DC, resolution: 1 V, accuracy: ±2%
- AC measurement: ±30 V ~ ±600 V alternating current, resolution: 1 V, accuracy: ±2%
- Battery: 3150 mAh/11.4 V
- Temperature: 0 ~ 50°C

ET30 EV Battery airtightness detector, low pressure

ISE-20024

ISE-20024, a type of high-precision non-destructive leak testing equipment for EV Batteries, which mainly uses compressed air as medium to exert certain pressure on the inner cavity or outer surface of the product to be tested, and then uses high-sensitivity sensors to detect the change of pressure, so as to determine the sealing performance of the product to be tested.

Features

- High sensitivity pressure sensing for precise and stable testing accuracy.
- Real-time display of pressure curve du ring the testing process for clear monitoring.
- Alert notifications for testing anomalies or failures.
- Real-time display of working status during stages like inflation, pressure stabilization, leakage, and exhaust, providing visual process tracking.

Functions

- Low-pressure airtightness testing: Using compressed air as the medium, a certain pressure is applied to the battery pack cavity, and a highly sensitive sensor detects pressure changes to determine its sealing integrity.
- Parameterconfiguration: Pre-settable parameters include workpiece number, volume, pressure, duration foreach stage, leakage limit, and other settings.
- Dual pressure display: Real-time display of current pressure and leakage fluctuation;
- Testing history: Automatically saves testing history records, supports detailed data presentation in the form of graphs;
- Multi-language support: Supports various languages including Simplified Chinese, Traditional Chinese, English, German, French, Japanese, Spanish, Portuguese, Italian, and more.

Technical specifications

- Power supply: AC 90 V~264 V/40~60 Hz
- Test Pressure Range: 0~30 Kpa
- Sensor Resolution: 1pa
- Test accuracy: ±5 pa
- Communication interface: RS-232/ USB
- Power: 20 WMax
- Air Source Requirements: 0.1~1.0 Mpa Dry Compressed air
- AirInlet Interface/ Test Interface: 6 mm air pipe
- Working Temperature: -10~55 °C
- Working Humidity: 10%~ 90%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iSmartEV DP750

ET500 EV Battery Airtightness Detector, High Pressure

ISE-10006

The ISE-10006 is a high and low voltage-compatible airtightness testing device designed to support the sealing tests of electric vehicle battery pack boxes and liquid cooling systems.

Features

- Compatible with both high and low voltages for battery packs and liquid cooling systems
- High-sensitivity pressure sensing ensures accurate and stable testing
- Automatically detects the pressure inside the battery pack. Once the target pressure is reached, the device automatically advances to the next stage, with segmented inflation providing greater accuracy
- The pressure gauge panel displays the process pressure curve in real-time, making the test process clear and easy to monitor
- High voltage automatic protection with an alarm prompt in case of test failures or abnormalities
- Automatically switches off after 15 minutes of inactivity, conserving energy and electricity

Functions

- Airtightness Testing: Uses compressed air as the medium to apply a certain pressure to the battery pack cavity, with a highly sensitive sensor detecting changes in pressure to assess sealing integrity
- Parameter Settings: Allows for the presetting of parameters such as workpiece number, volume, pressure, time for each stage, leakage limit, and more
- Process Visualization: Displays the real-time working status of stages such as inflation, pressure stabilization, leakage, and exhaust
- Dual Pressure Value Display: Shows both the current pressure and the leakage amount in real time
- Detection History: Automatically saves detection history records and supports curve charts for detailed data display

Technical specifications

- Power Input: AC 9060 Hz
- Test Pressure Range: 0~500 KPa
- Sensor Resolution: 1 Pa
- Test Accuracy: ±5 Pa
- Interface: RS232 / USB
- Air Requirements: 0.4~1.0 MPa dry compressed air
- Air Intake Interface/Test Interface: Ø8 mm trachea / Ø6 mm trachea
- Working Temperature: -10°C ~ 55°C
- Working Humidity: 10% ~ 90%

ECC01 Current Clamp
ISE-30050

The ECC01 is an EV circuit system testing tool that supports DC voltage, DC current, and AC current testing. It allows for non-contact circuit testing under power-on conditions and is designed to be used with P01, P03, ST13, ST10, and other compatible equipment.

Features
- Non-contact DC testing, enabling safe and simple detection while the system is powered on.
- Anti-electromagnetic interference ensures stable and reliable measurement data.
- Automatic range selection combined with a noise reduction algorithm provides fast and accurate measurements.
- Ergonomic design, compact, and portable.

Functions
- Supports DC voltage and current testing with dual-mode display.
- Supports AC current testing.
- Supports range selection.
- Real-time display of measured values, including maximum, minimum, and peak-to-peak values.
- Measurement waveform saving and playback.

Technical specifications
- Test Functions: DC current test, DC voltage test, AC current test
- Battery: 9 V dry cell
- Current Test Method: Clamp CT, non-contact measurement
- Jaw Dimensions: 16x18 mm
- Input Measuring Range: 0~200 A AC/DC
- Resolution: 1 mA AC/DC
- Output Gear: 10 mV/A (0200 A)
- Accuracy: ±3% FS (23°C ± 5°C, below 75% RH)
- Phase Error: <3° (AC 50 Hz / 60 Hz, 23°C ± 2°C)
- Zero-Setting: Zero adjustment via ZERO key
- Frequency Response: DC ~ 50 kHz
- Working Current: 500 mA
- Working Temperature: 0~50°C
- Size: 278x71x37 mm

OM201 Two-Channel Oscilloscope & Multimeter

ISE-30052

The ISE-30052 is a professional measurement tool for EVs that integrates the functions of a multimeter and a two-channel oscilloscope.

Features

- Integrates the functionalities of a multimeter and a dual-channel oscilloscope, providing multiple functions in a single device.
- Offers three measurement modes: manual, tracking, and automatic cursor.
- Waveform diagrams can be saved locally for viewing at any time.
- Supports both wired and wireless communication methods (can be used with P01).
- Support both wired and wireless communication methods (can be used with P0l).

Functions

- Dual-Channel Oscilloscope: Supports automatic measurement of six parameters, automotive testing, waveform recording, and play back
- Multimeter: Supports DC/AC voltage and current measurement, resistance measurement, diode testing, and continuity testing

Technical specifications

- Battery: 3100 mAh / 3.8 V
- Size: 160x195x42 mm

Oscilloscope

- Number of Channels: 2
- Bandwidth: 10 MHz
- Maximum Real-Time Sampling Rate: 100 Mbps
- Time Base Range: 1 µs/div ~ 10 s/div, step by 15 times
- Sampling Methods: Common, peak value detection, average
- Input Coupling: DC, AC, and grounding
- Input Impedance: 1MΩ ± 2%, parallel with 15 pF ± 5 pF
- Input Capacitance: 20 pF max
- Automatic Measurement: Peak-to-peak value, average

Multimeter

- DC Voltage: ±600 V
- AC Voltage: ±600 V
- DC Current: ±10 A
- AC Current: ±10 A
- Resistance: 0~6 MΩ
- Diode: 0 ~ 2.0 V
- Continuity: Buzzer sounds when resistance is less than 500 Ω

IRT01 Insulation Resistance Tester
ISE-30054

The ISE-30054 is a specialized insulation resistance tester for EVs, equipped with powerful measurement and data processing software that efficiently measures parameters such as insulation resistance and voltage.

Features
- Flexible application, capable of measuring insulation resistance and AC/DC voltage; supports comparison measurement, continuous measurement, and timing measurement modes.
- Wide-range measurement: the resistance measurement range can reach 10 MΩ to 100 GΩ, depending on the output voltage.
- Intelligent alarm system: provides timely alarms for low resistance to protect personnel and equipment safety when the range is exceeded.
- 5-inch LCD backlit display, convenient for measurements in low-light environments.
- Automatically shuts down after 15 minutes of inactivity, conserving energy.
- Accurate and consistent timescale testing.

Functions
- Insulation Resistance Test: Supports the selection of 500 V, 1000 V, 2500 V, and 5000 V output voltage ranges. Offers comparison measurement, continuous measurement, and timing measurement modes.
- Voltage Measurement: Supports both DC and AC voltage measurement.
- Additional Features: Includes LCD backlighting, automatic shutdown after 15 minutes of inactivity, over-range alarm, and high-voltage warning indication.

Technical specifications
- Output Voltage: (Details to be provided)
- Insulation Resistance: (Details to be provided)
- Short-Circuit Current: (Details to be provided)
- DC Measurement: ±30 V to ±600 V DC, resolution: 1 V, accuracy: ±2%
- AC Measurement: ±30 V to ±600 V AC, resolution: 1 V, accuracy: ±2%
- Display Mode: 5-inch LCD display
- Battery: 3150 mAh / 11.4 V
- Operating Temperature: 0 ~ 50°C
- Size: 190x207x72 mm

VM13 Wireless Voltage Monitor

ISE-30061

The ISE-30061 is a high-precision, wide-range intelligent DC voltage measuring instrument that supports multi-channel wireless network connections.

Features

- Wide-range measurement with automatic switching range selection.
- High-precision measurement with digital real-time display of voltage values.
- Supports multi-channel wireless networking, capable of displaying the voltage values of multiple devices/circuits under test simultaneously (supports up to 48 channels).
- Voltage curve graph functionality, enabling real-time viewing of multi-channel voltage change curves.
- Includes standard probes and alligator clips, selectable based on usage scenarios.
- Compact and lightweight design with a built-in magnetic device for attachment to iron surfaces.
- Equipped with a built-in rechargeable lithium battery with extended battery life.

Functions

- Voltage Measurement: Supports DC voltage measurement from 0 to 1000V with a measurement accuracy of 0.5% FS.
- Multi-Channel Networking: Supports networking with terminals such as the ST13, displays voltage change curves, and can connect up to 48 channels simultaneously.
- Quick Connection Terminal: Allows for quick connection by scanning the QR code on the device or manually selecting and adding connection terminals in batches.
- Abnormal Alarm: Includes communication status indicator, battery power indicator, and low battery alarm.
- Reminder and Finder: Supports reverse search of the voltmeter with a buzzer reminder and flashing indicator light.

Technical specifications

- Battery: 3000 mAh / 3.7 V
- Size: 78 x 100 x 31 mm
- Measurement Range: DC 0~1000 V
- Measurement Accuracy: 0.5% FS
- Resolution: 10 V
- Display Method: 6-digit digital display
- Communication Methods: Bluetooth, Wi-Fi
- Charging Interface: Type-C
- Storage Temperature: -10 ~ 60°C
- Working Temperature: 0 ~45°C

SMARTSAFE

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