



Battery Management System (BMS)

LUDRE YAZILIM

1. TECHNICAL SPECIFICATIONS

- Battery Tester
- Computer Communication Cable
- Power Connection Cable
- Computer Software
- Length 33cm
- Width 25cm
- Height 17.5cm

DEVİVE NAME	DIMENSIONS
STOROBE-1 CH 10 CURRENT	LENGTH: 33cm
	WIDTH: 25cm
	HEIGHT: 17,5cm

3. Applications

- Energy Storage Systems
- Electric Vehicle
- Autonomous Systems
- Hybrid Systems

2. DESCRIPTION

- Electric Vehicles
- Electric Scooter/Bike
- Power Tools
- Academic Studies
- Protection of Cells
- Temperature Control Management
- Charge/Discharge Control
- Data Collecting
- Communication with Modules
- Data Storage Storage
- Cell Balance Control
- Battery Discharge Test
- Resistance Impedance Testing and Analysis
- Detection and Examination of System Parameters
- Battery Status Parameters
- Charge and Health Status of Batteries
- Validation and Development Tests
- Uninterruptible Power Supplies (UPS)
- Battery Life Cycle
- Battery Analysis
- Battery Management
- Energy Storage Systems EDS
- Sustainability





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4. TERMINAL INPUT AND FUNCTIONS

4.1 Device Feed



220v AC

4.2 PC Connected



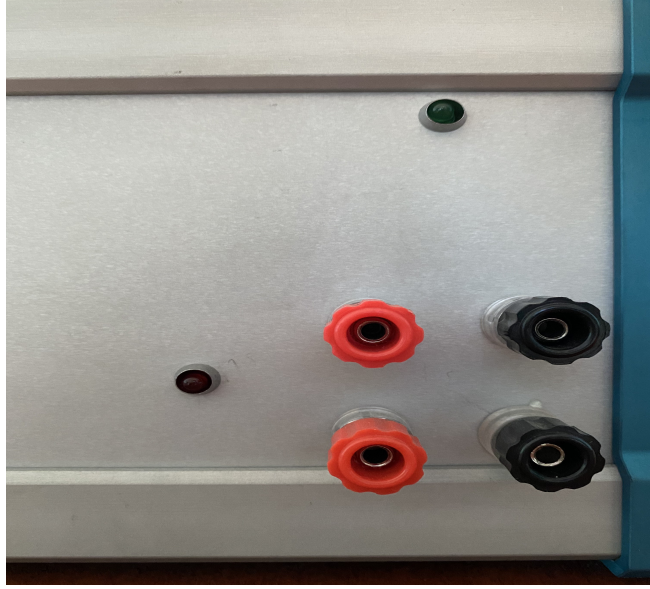
USB- PC



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4.3 Battery Feed



RED: BATTERY+ BLACK: BATTERY GND

5. USING THE BATTERY TEST SYSTEM

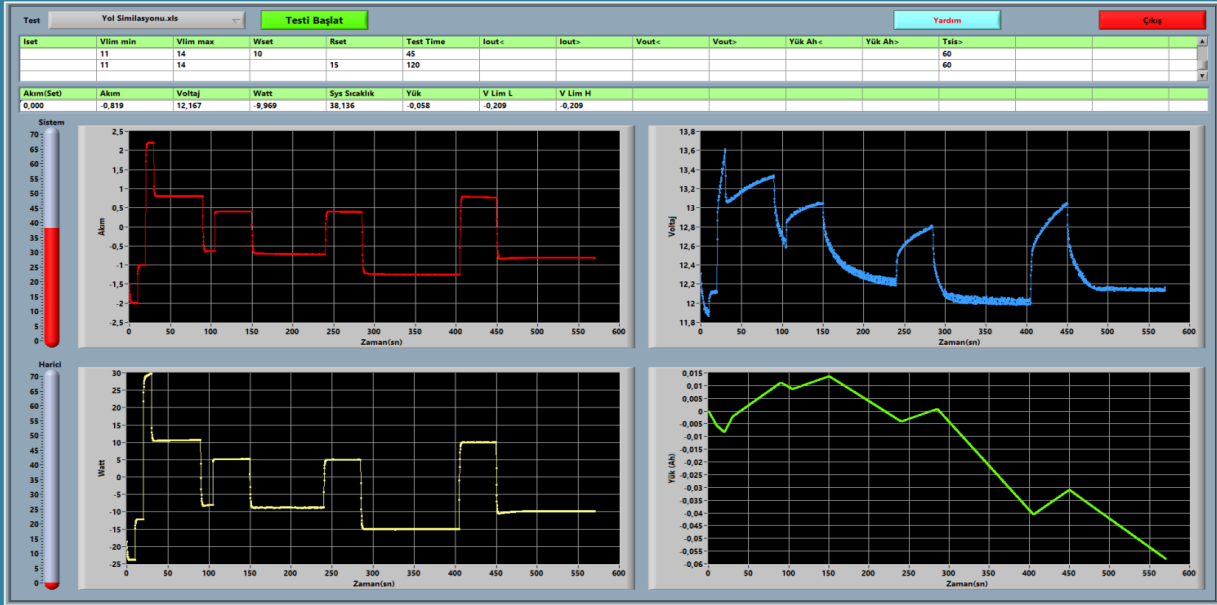
First of all, all input and output sockets of the battery test system are checked. After making sure that there is no problem, we can start by giving the 220V supply of the battery test system. then we need to open the on-off button on the back of the device and see that the led on the front is lit. After making the USB connection to the computer, make the battery connection from the probes. With the software that comes with the system, you are ready to perform the following tests of this battery;



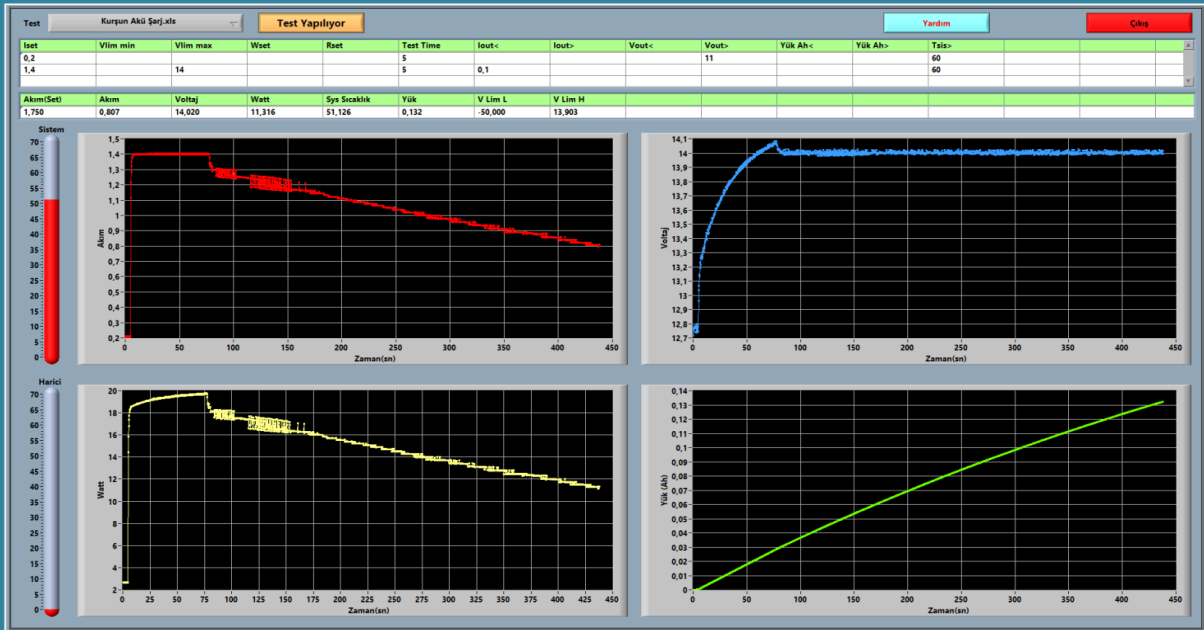
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5.1 Road Simulation



5.2 Lead Battery Charger

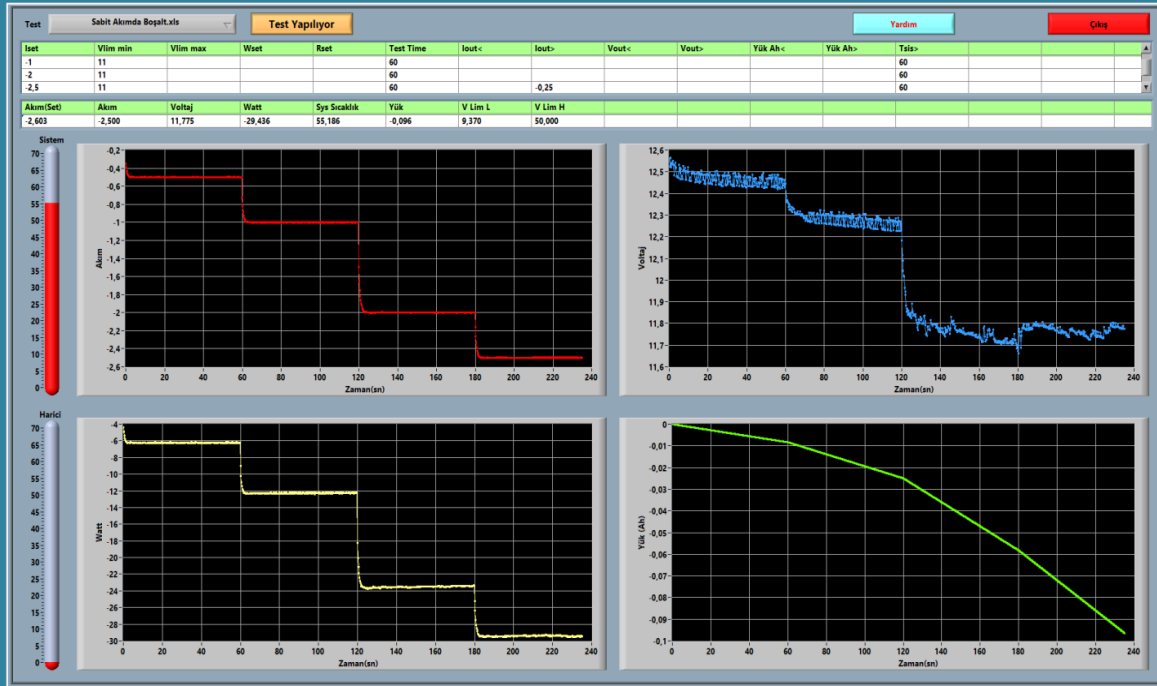




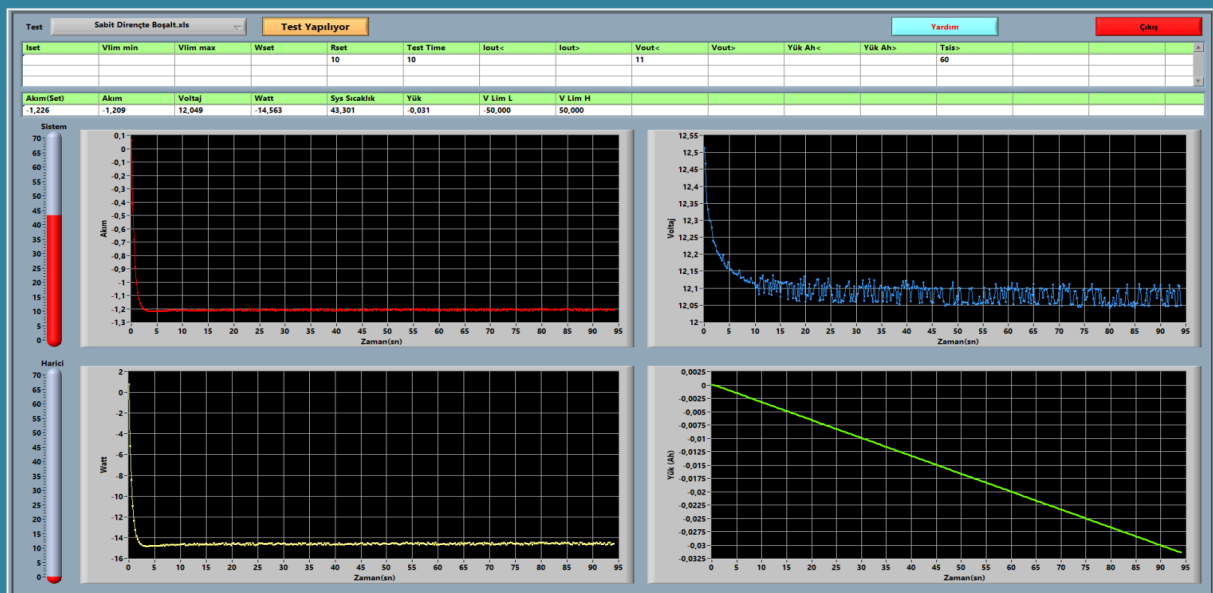
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5.3 Constant Current Discharge



5.4 Fixed Resistance Discharge

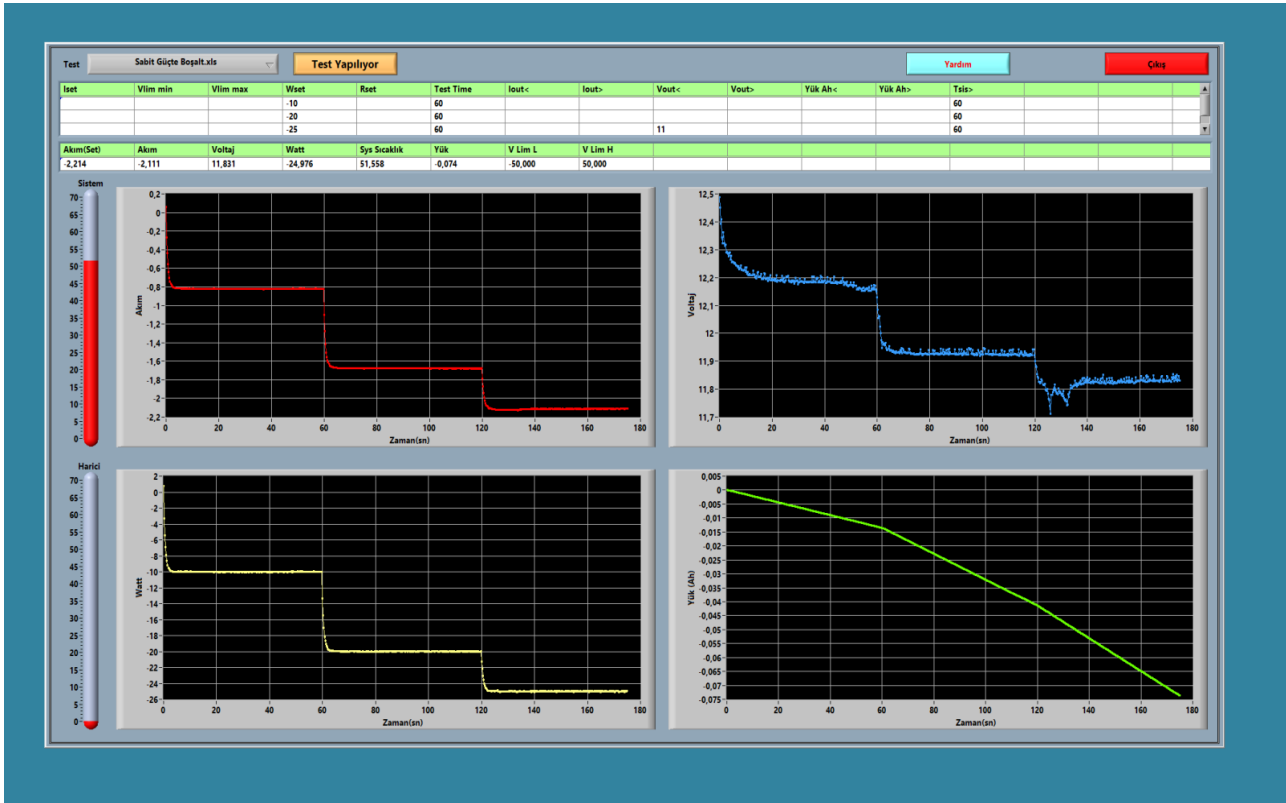




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5.5 Constant Power Discharge



You can create your own tests with the parameters you write to any excel file. You can run the software according to these parameters.

Air Cooled System is available. It converts the energy taken from the battery into heat. The heat is thrown out by the air cooling system. Behind it, there is a fan system that works depending on the temperature.

6. BATTERY TEST SYSTEM USAGE AREAS

6.1 Energy Storage Systems

Secondary (rechargeable) batteries included in battery technology, fast response times, high energy capacities and high storage efficiencies. Therefore, they are useful in stationary storage systems.



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6.2 Electric Vehicle

It is expected that the use of electric driven vehicles will become widespread due to the high amount of carbon dioxide emissions from vehicles using internal combustion engines and the legal restrictions on this issue. In this regard, for the purpose of energy storage Batteries are of interest. The use of lithium-ion polymer type battery cells is increasing due to its high power and energy density in both renewable energy systems and electric vehicles. The battery pack for electric vehicles requires the battery cells to be in parallel for large current use. An important parameter is the impedance consistency of the battery cell, as the battery life will be affected if the impedance is not consistent.

6.3 Autonomous Systems

T.C. Project on autonomous systems of the Presidency of the Undersecretariat of Defense Industry organizes calls and competitions. Unmanned/Autonomous Land Vehicles (UAV), Unmanned Underwater In addition to organizing Vehicles Prototype Competitions, project calls related to robotic systems are also carried out. is done. In this direction, our company aims to support these projects with the system it will produce locally. Aims.

6.4 Hybrid Systems

Key to electric vehicle (EV), hybrid electric vehicle (HEV) and their development With the development of batteries, the demand for battery chargers will increase. it is inevitable. In these vehicles, the main energy source or the first order auxiliary energy The performances of high energy density batteries used as a source of does not depend on the design of the battery cells. How cells are used and it also depends on charging. Therefore, in the use and development of EV and HEV battery chargers play a critical role. Battery cells are inefficient, should not be charged with chargers that reduce its performance and lifespan. The performance of the battery is increased by applying test systems, R&D studies and scenario tests.