With the booming development of automotive electrification, there are more and more scenarios in which the electrical components in the car need to measure and control the current, such as BMS current monitoring, motor controller current monitoring, PDU current monitoring, OBC/DCDC current monitoring, and leakage current detection of charging piles. Vehicle current sensors are faced with large current, high precision, fast speed of the use of the scene, for the test requirements are also more stringent.

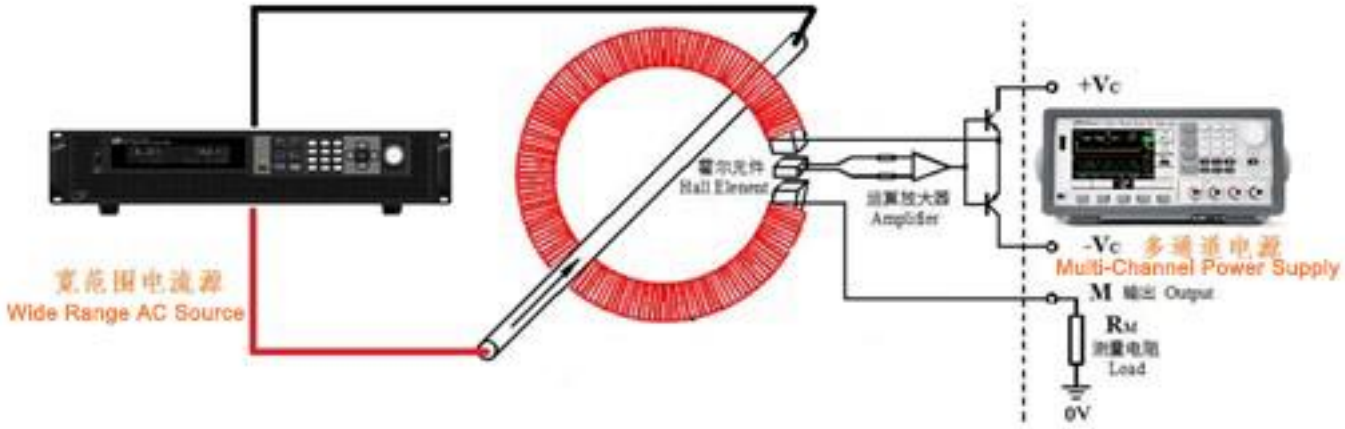
TEST BACKGROUND

Types of Current Sensors

Current sensors are devices that convert a current signal into another analyzable signal in terms of types, current sensors are mainly categorized into precision resistors, current transformers, Hall current sensors, open-loop current sensors, closed-loop current sensors, fluxgate current sensors, and magnetoresistive current sensors.

Current sensor test focus

Linearity, accuracy, dynamic response



ITECH current sensor test architecture diagram

ITECH Applications

A Hall sensor users use ITECH products to test current sensors, the use of IT-M3900D series DC power supply to simulate the work of new energy vehicles in the high-speed high-current scenarios, the use of dual-channel DC power supply access to the positive and negative voltages + GND for the sensor to provide three-level wiring power supply.

ITECH Recommended Products

1. IT-M3900D **wide range programmable DC power supply**
   - 10V/1020A/10KW, wide range current output;
   - 0.1%FS high accuracy, can be used for current calibration and meter movement;
   - Current source mode, support customized current rise/fall time, high speed without overshoot;
2. **ITECH Multi-Channel DC Power Supply**
   - IT-M3100D dual-channel DC power supply (200-400W/ch)
   - IT6300 series three-channel DC power supply (15-180W/ch)

The rapid development of new energy vehicles can not be separated from the construction of supporting infrastructure, ITECH new energy vehicle testing solutions to meet the three electric test (battery, motor, electronic control), AC / DC charging pile test, on-board charger and charging interface test, portable AC charging device test, AC / DC charging pile simulation test, high-voltage parts testing, and so on.

ITECH has a complete product line of new energy vehicle test instruments, up to 2MW, voltage up to 2250V, including source and load all-in-one, battery simulator, grid simulator, DC power supply, Regenerative DC electronic load, Regenerative AC electronic load, internal resistance tester and so on. Combined with ITECH's test software, it provides users with perfect, professional and flexible system test solutions.

For more information, please visit ITECH official website at http://www.itechate.com.

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