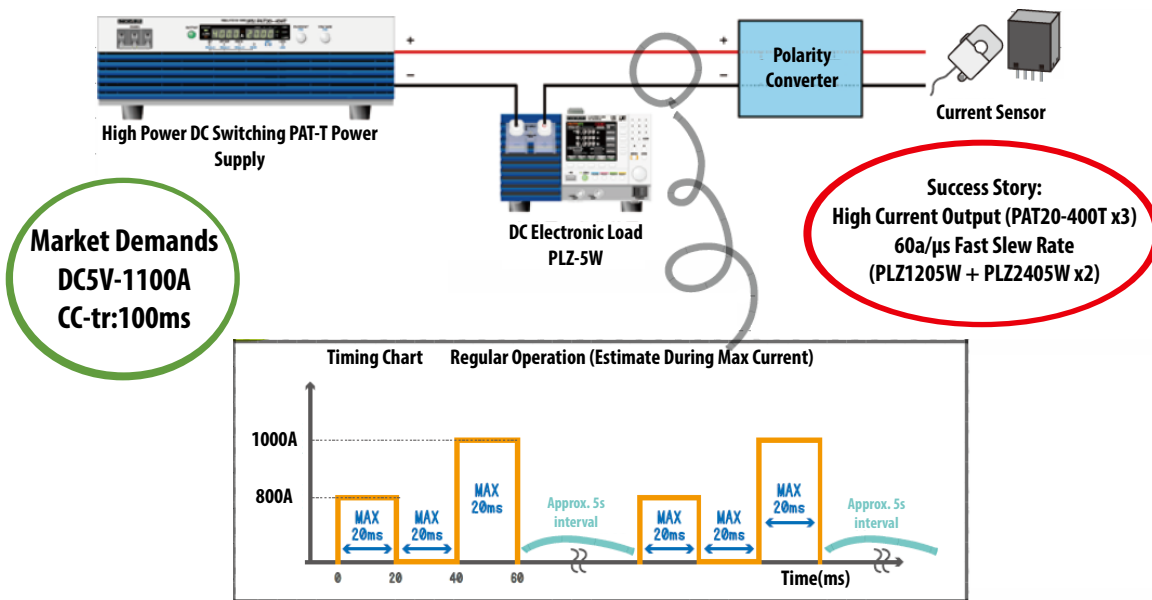


Testing Methods for Automotive Current Sensor Evaluation

In recent times, current sensors most commonly used in the automotive industry have transitioned from Hall Effect current sensors to board mount current sensors. With Hall Effect current sensors, it was possible to estimate the actual current through small current traces by looping electric wire through the hall element. With a board mount current sensor you cannot loop the electric wires, meaning that the actual current (up to several thousand amperes) will have to flow for the current sensor to work. Current sensors mounted onto in-vehicle inverters and internal chargers require extremely high speed response, meaning that high speed current fluctuation and polarity changes in various patterns are required for successful evaluation. The Kikusui current polarity switching system for current sensing utilizes the highly efficient PAT-T switching DC power supply and the PLZ-5W electronic load with a dedicated polarity converter to control large current with extremely fast response speeds.

*Bipolar power supply systems have fast response speeds but require 10+ units to control large current.



The measurement accuracy of the current sensor will depend on the test environment. For example, while some test engineers utilize programmable DC electronic loads for measurement, others tend to use a shunt resistor (while shorting the DC source) with a multimeter to make rough measurements.



**PLZ1205W + PLZ2405WB
DC Electronic Load**



**PAT-T High Power
High Efficiency
DC Power Supply**

Applicable Products: PAT200-400T, PLZ1205W, PLZ2405WB
Target Industries: Automotive Current Sensor Industry (Above 1000A)
Target EUT: Current Sensors