

CASE STUDY

System Integrator Incorporates Electronic Loads Into Fuel-Cell ATE

► Background

A system-integrator based in Asia designs and manufactures systems based on fuel-cell and other alternative-energy technologies. Leveraging its expertise in SOFC (solid-oxide fuel cell), SOEC (solid-oxide electrolyzer cell), PEMFC (proton-exchange-membrane fuel cell), and MCFC (molten-carbonate fuel cell) technologies, the company offers a variety of ATE systems and related test and measurement equipment.

The company serves customers in the automotive industry and in other industries, and it is planning to launch a SOFC system for the commercial stationary-power market for worldwide customers.

► The Challenge

The company offers ATE systems for the fuel-cell stack and BOP (balance-of-plant) components, such as pumps, heat exchangers, and humidifiers. Specifically, the company offers a PEMFC test station with ratings from tens of watts to hundreds of kilowatts as well as test stations for SOFCs and SOECs (solid-oxide electrolyzer cells). To test the fuel cells and related components under realistic conditions, the company required programmable electronic loads to integrate into the ATE systems it provides to its end customers.



► The Solution

The company recently purchased four 12kW PLW Series of electronic loads from AMETEK Programmable Power to integrate into ATE systems for high-power fuel-cell efficiency test. The company had previously purchased air-cooled PLA units and water-cooled PLW units and preferred to continue integrating the same series of loads into its systems. Key selling points for the electronic loads were product reliability and power density as well as a competitive price. But even more important was lead-time commitment. Based on past experience, the company had confidence that AMETEK Programmable Power would match the delivery times of other vendors' products that would be integrated into the same ATE systems. The company was further assured that AMETEK Programmable Power would provide full support from order placement through commissioning and shipment of the complete systems to the end customers.