

# TECHNOLOGY DEVELOPMENT PROJECT FACT SHEET

## No. 071 - ABC-150/DCU POWER PROCESSING SYSTEM

The ABC-150/DCU is a bi-directional, computer-controlled DC power processing system. It is an ideal test system for a wide range of DC loads, other than batteries. Offering more capability than a traditional power supply system, it can both deliver and absorb power. Power is transferred from the utility to the load, (*load* refers to a device or system connected to the ABC-150/DCU for the purpose of receiving and/or delivering DC power) or vice-versa. The ABC-150 is specifically designed for testing electric vehicles, hybrid-electric vehicles, components and sub-systems. Cycling includes electric components, fuel cells, batteries, UPS or APU's, flywheels, motors, inverters and capacitors.



### ABC-150/DCU Applications

The ABC-150/DCU is a flexible system, which is able to test a variety of DC power applications in three configuration, voltage and current limitation as listed:

Configuration	Voltage	Current	Power
Independent	8 to 420 VDC	-265 to +265 ADC	± 125KW
Parallel	8 to 420 VDC	-530 to +530 ADC	± 125KW
Differential	-420 to +420 VDC	-265 to +265 ADC	± 125KW

### ABC-150 Tests Performed at 501 Facility

APS has conducted an analysis on a variety of batteries, such as flooded lead-acid, VRLA AGM, Gelled Electrolyte (Gel), nickel cadmium, nickel metal hydride, lipolymer, and more. Maintenance activities have included recovery capacity on sulfated lead-acid batteries determining capacity of used batters and supporting warranty claims for sub-performing batteries, power supplies and inverters.



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