

Power Processing Systems

ABC-170CE

Dual Channel Cycling Station

- CE Certified
- Cycle Fuel Cells, Hybrids & Batteries
- Fully Programmable Computer Control
- Bi-Directional Load Capability



Product Features:

- Voltage Range 8 to 420VDC (445VDC optional)*
- Current Source +530ADC
- Current Sink -640ADC
- Power Range +125kW to -170kW
- Dual Independent Channels

ABC-170CE . . . Meeting Your Testing Needs!

AeroVironment's ABC-170CE is used internationally to develop and test products that require additional sinking power. The ABC-170CE was originally developed to test fuel cells in an energy efficient manner, by returning clean AC power back to the utility grid. AeroVironment's customers now use this versatile machine to test batteries, hybrids and other HEV and EV applications that require higher discharging capability.

INPUT RATING	3 Phase, 415Vrms
CURRENT	200Arms
FREQUENCY	50Hz (60Hz optional)
ISOLATION TRANSFORMER	Internal Transformer
POWER FACTOR	> 99%
HARMONIC DISTORTION	< 3% THD
MULTIPLE USER INTERFACES	Manual; Remote Operation System (ROS); DCOM Driver for LabVIEW, C++ and Visual Basic; CAN

OPERATING RANGE:

Configuration	Voltage(Vdc)*	Current (A dc)	Power (kW)
Independent	+8 to +420	-320 to +265	-170 to +125
External Parallel	+8 to +420	-640 to +530	-170 to +125
WEIGHT	2500 lbs (1136 kg)		
DIMENSIONS	72"W x 67"H x 30"D (183cm W x 170cm H x 76cm D)		

ABC-170CE Technical Specification

Utility Requirement

Voltage	3 Phase, 415Vrms, +10%/-20%, <5% imbalance
Current	213Arms
Frequency	50 ± 1Hz (60 ± 2Hz optional)
Isolation Transformer	Internal Transformer

AC Power Quality at Rated Power

Power Factor	0.99
Harmonic Distortion	< 3% THD, IEEE 519 Compliant

DC Output, Operating Range

Mode	Voltage (Vdc)	Current (A _{dc})	Power (kW)
Independent (2 Channels)	+8 to +420	-320 to +265	-170 to +125
External Parallel (1 Channel)	+8 to +420	-640 to +530	-170 to +125
Optional Range	+420 to +435	-160 to +160	-70 to +70
	+435 to +445	-90 to +90	-40 to +40

The above ranges are the maximum allowed by the system; none may be exceeded. Voltage, current and power limits within the ranges can be set by the user based on the load and the test requirements.

Accuracy & Resolution	Accuracy (±)	Resolution
Voltage	250mV or 0.15% of the reading	20mV

Current	Accuracy (±)	Resolution
Independent (2 Channels)	100mA or 0.25% of the reading	20mA
External Parallel (1 Channel)	200mA or 0.35% of the reading	30mA

Current Ripple on DC Output

Independent & Parallel Mode	< 0.5Arms
Max Ripple from Load	< 15Arms

Operating Environment

Temperature	0-35°C
Humidity	5-90% non-condensing

Additional Features

- Remote Voltage Sense
- Independent Mode Control for Each Output Channel
- Analog Control Signal
- Reverse Voltage Protection
- Independent Output Enabled
- Multiple User Interfaces: Manual; AV Remote Operation System (ROS); Windows DCOM Driver for LabView, Visual Basic, C++, Studio.NET; CAN (for use with existing CAN bus)

Safety

- Remote Emergency Switch Available
- Automatic Shutdown on Loss of Power
- Load Disconnect Protection
- Independent Channel Shutdown
- Emergency Cutoff Switch
- CE compliant

Physical Specification

Dimensions	72"W x 67"H x 30"D (183cm W x 170cm H x 76cm D)
Weight	2500 lbs (1136 kg)

** All specifications are subject to change without notice.*