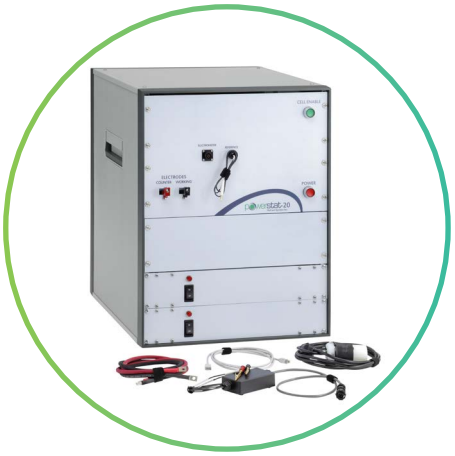
Powerstat-20 Specifications

Cell Control	
Compliance Voltage	±10 V
Max Output Current	±18 A
Rise Time	60 us for 0.2 Ohm load (0%-100% signal)
Slew Rate	0.8 V/µs
Bandwidth	6 kHz (-3 dB, 1 Ohm load)
Applied DC Potential Ranges	1 (±10 V)
Applied Potential Resolution	0.3 mV
Applied Potential Accuracy	< 0.04% Full Scale Range (FSR)
Current Autoranging	In Galvanostat Mode
Applied DC Current Ranges	4 (±20 µA, ±2 mA, ±200 mA, ±18 A)
Applied Current Resolution by Range	±20 µA: 0.74 nA ±2 mA: 74 nA ±200 mA: 7.4 µA ±18 A: 0.56 mA
Applied Current Accuracy by Range	±20 µA: 0.10% of FSR, ±2 mA: 0.053% of FSR, ±200 mA: 0.037% of FSR, ±18 A: 0.033% of FSR
Input Bias Current	500 pA
Input Impedance	250 GΩ parallel to 3 pf
Maximum Update Rate	4 µs
Maximum Scan Rate	100V/sec
IR Compensation	Manual, Potentiostat and Galvanostat Modes, All Ranges
External Control	1 AO, 1 AI, 2 DO



Key Benefits:

- High power potentiostat galvanostat (up to 20 A)
- Data acquisition speed: 250k samples per second
- EZware software controls auxiliary digital and analog I/O, thermocouple inputs, frequency counter and digital synchronization
- Performs Step Impedance Spectroscopy (SIS) and Electrochemical impedance spectroscopy (EIS)

NuVant Systems Inc.
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Powerstat-20 Specifications

(Continued)

Potential Measurement	
Measured DC Potential Ranges	2 (±50 mV, ±10 V) Autoranging
Resolution	3µV, 300µV (0.006%, 0.003% of FSR)
Accuracy	0.08 or 0.03% of FSR

Current Measurement	
Measured Current Ranges	Galvanostat: 4 (±20 µA, ±2 mA, ±200 mA, ±18 A) Potentiostat: 4 (±20 µA, ±2 mA, ±200 mA, ±18 A)
Potentiostat Min to Max	1 mA to 18 A
Resolution by Range	Potentiostat and Galvanostat are the same ±20 µA: 0.74 nA ±2 mA: 74 nA ±200 mA: 7.4 µA ±18 A: 0.56 mA
Accuracy	Potentiostat and Galvanostat are the same ±20 µA: 0.10% of FSR, ±2 mA: 0.053% of FSR, ±200 mA: 0.037% of FSR, ±18 A: 0.033% of FSR

Data Acquisition	
Acquisition Speed	250 k samples/s (Aggregate) 125 k samples/s/ch. (min 2 channels)
DAC Resolution	16 bits

About Nuvant Systems Inc.

NuVant Systems is a worldwide provider of electrochemical instrumentation for academicians, industries, and national laboratories. We customize electronics for analysis, reconditioning and de-energizing of batteries for aftermarkets, repurposing, and end-of-life recycling. NuVant empowers small businesses and large vehicle fleets to improve energy storage device lifecycles, bringing electrochemistry to the streets. By integrating electronics and chemistry, we offer a scientific approach to success in the renewable energy market.

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