

Potentiostat/ Galvanostat

For fuel cell stacks, electrolyzers and batteries
EIS Acquisition

Potentiostat **Ultimate**



PTCu-10100EW

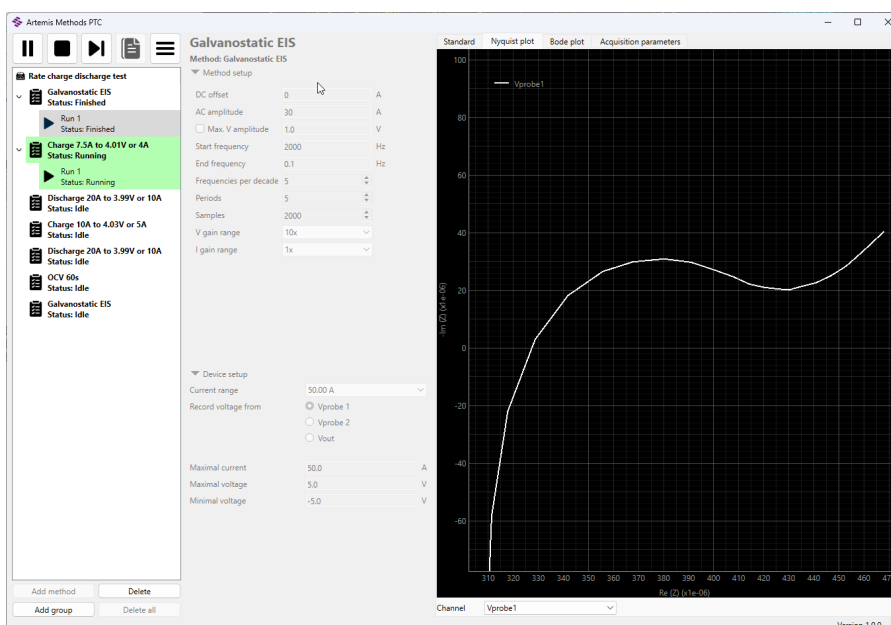
PTCu-1020E | PTCu-1050EW | PTCu-05100EW



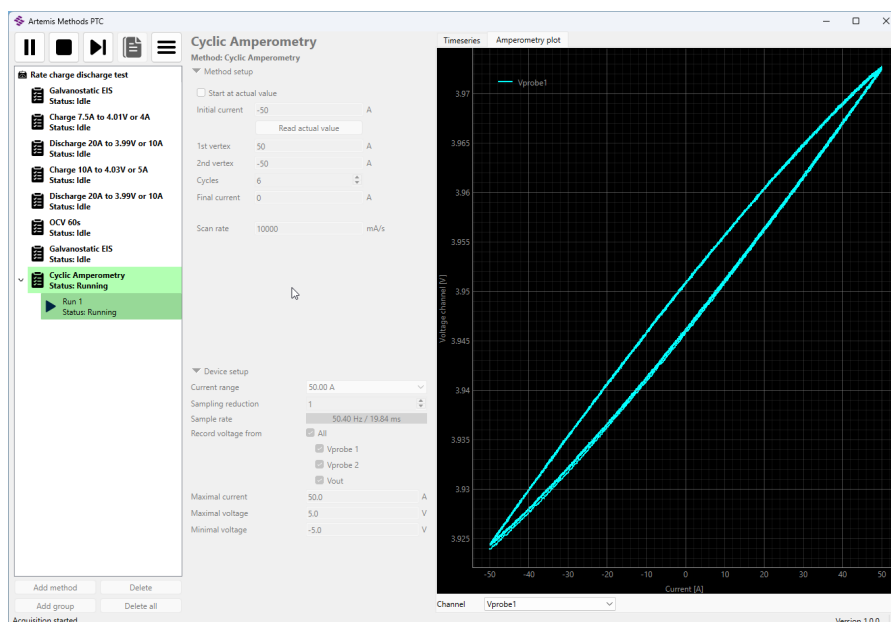
Applications

The **Potentiostat Ultimate Line** brings true parallel **MegaEIS™ architecture** to high-power electrochemical applications, including advanced fuel cells, electrolyzers, and batteries. It delivers **up to ±100 A** while utilizing **3 independent measuring channels** for simultaneous **high-speed data acquisition up to 1.25 Msp**.

All models are fully driven by **Artemis measurement software**, ensuring robust PC-controlled workflows. This enables advanced cycling, custom high-speed method sequencing, and full scripting to automate complex experimental procedures.



Artemis – Kolibri Measurement Software – EIS



Artemis – Kolibri Measurement Software – Cyclic Amperometry



Technical Parameters

	PTCu-1020E	PTCu-1050EW	PTCu-05100EW	PTCu-10100EW
Power supply	110 ... 240 V AC / 50 ... 60 Hz			
Dimensions / Weight	19" rack-mount, 4U; 440 mm (W) × 177 mm (H) × 358 mm (D) / 15 kg			5U; 223 mm (H) / 18,5 kg
Cooling	Air	Water	Water	Water
Protection rating	IP20			
Electrometer Input voltage range	-10 V ... +10 V			
Compliance / Output voltage	-5 V ... +10 V	-10 V ... +10 V	-5 V ... +5 V	-2 V ... +10 V
Compliance / Output current	-20 A ... +20 A	-50 A ... +50 A	-100 A ... +100 A	-100 A ... +100 A
Max. internal power dissipation	300 W	1000 W	1000 W	1000 W
Current ranges	20 mA, 200 mA, 2 A, 20 A	500 mA, 5 A, 20 A, 50 A	500 mA, 5 A, 20 A, 100 A	500 mA, 5 A, 20 A, 100 A
Sampling	24-bit ADCs, up to 1.25 Msps			
Measurement resolution	0.001% of selected range for ≤ 1 ksps sampling			
Accuracy	Voltage: ≤ 0.1% of range + 0.1% of reading Current: ≤ 0.1% of range + 0.5% of reading			
Acquisition methods	Constant V, I, Open circuit, Manual control, Linear Sweeps, Cyclic Voltammetry, Cyclic Amperometry, Electrochemical Impedance Spectroscopy (EIS), Chronoamperometry, Chronopotentiometry, Double Step Chronoamperometry, Double Step Chronopotentiometry, Current Interrupt, Square Pulse Potentiometry, Square Pulse Amperometry, Battery Charge and Discharge, Custom experiment sequences, Python scripting			
EIS channels	3 independent channels			
EIS frequency	1 mHz ... 100 kHz, limited use up to 1 MHz			
EIS amplitude	1 ... 1000 mV, up to 10 A for < 1 kHz	1 ... 1000 mV, up to 25 A for < 1 kHz	1 ... 1000 mV, up to 50 A for < 1 kHz	1 ... 1000 mV, up to 50 A for < 1 kHz
PC connection	Ethernet, USB 2.0			
Software	Artemis Software for MS Windows, TCP Server, NI LabVIEW drivers, Python library and examples			



Rear View



PTCu-1020E



**PTCu-1050EW
PTCu-05100EW**



PTCu-10100EW

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