

# Innovative Electrochemical Instrumentation **for Research & Industry**

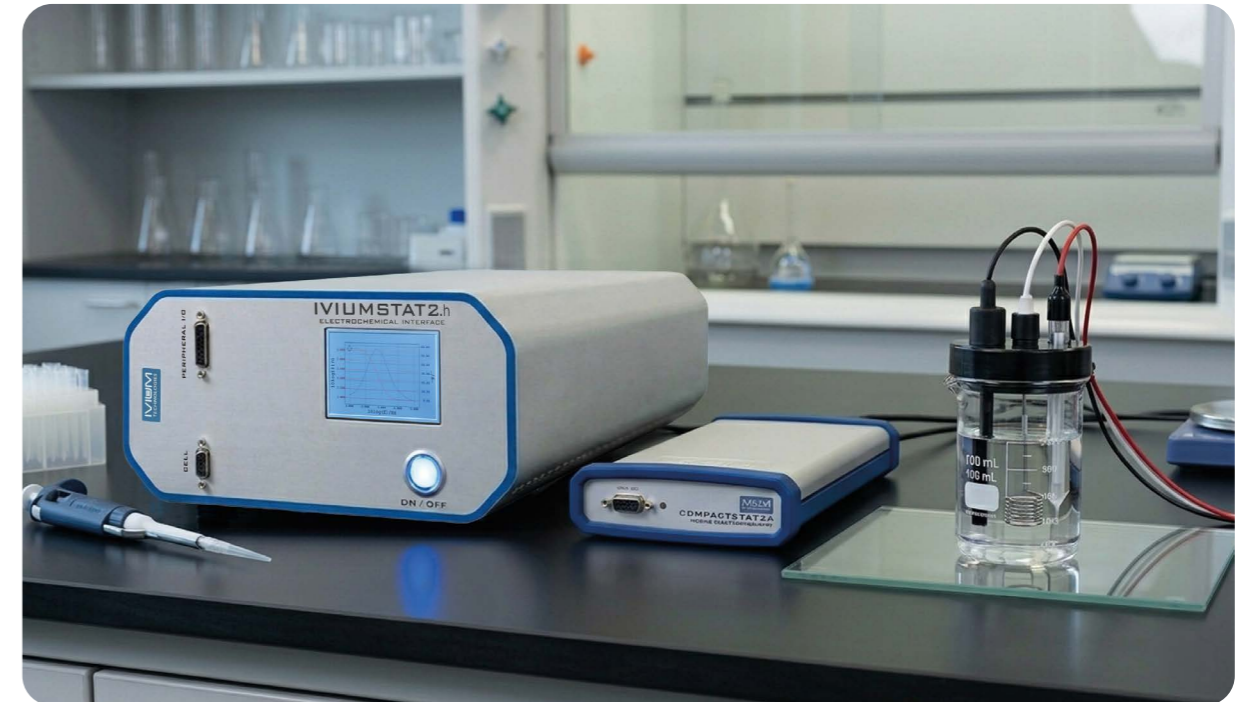


# IviumStat & CompactStat

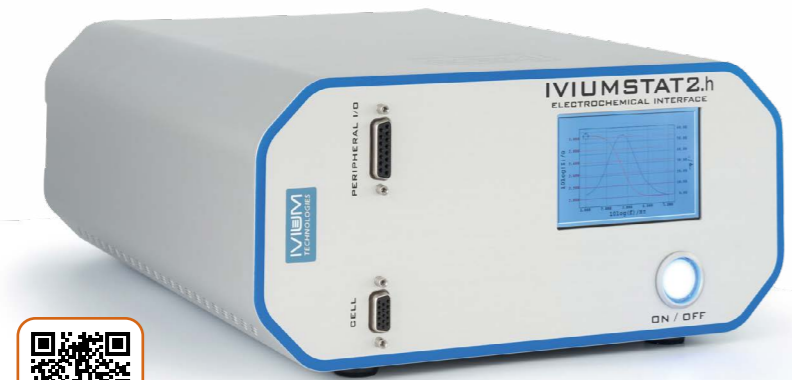
**24 BIT**  
resolution

Premium potentio/galvanostat for unbeatable performance

- High-end instrument
- Suitable for all applications
- Floating mode selectable
- Data acquisition rate 2,000,000 points/s
- Ultra low Current Range
- Full I/O Interface port



## IviumStat2.h



Full specs

- EIS integrated 10μHz to 8MHz
- Complete solution
- Full color display Real-time data

## CompactStat2.h



Full specs

- Portable USB powered
- EIS integrated 10μHz to 3MHz
- Optional integrated power boosters

MODEL	IviumStat		CompactStat		
	2.h	2X	2.h	2.h10800	2.h20250
Current compliance	±5A	±5A/±2A	±30mA	±800mA	±250mA
Maximum output voltage	±10V	±10V at 5A ±50V at 2A	±10V		±20V
Applied voltage	±10V	±10V / ±50V	±10V		±10V o ±20V
Current resolution	24 bit, min. 0.5zA		24 bit, min. 0.5zA		
Data Acquisition rate	2,000,000 points/s		2,000,000 points/s		
EIS	10μHz to 8MHz		10μHz to 3MHz		
Floating operation	✓	✓	✓	✓	✓
IR compensation	✓	✓	✓	✓	✓

### POPULAR MODULES

Bipotentiostat	o	o	o	o	o
Multiplexers	o	o	o	o	o
Power boosters	o	o	o	✓	✓
Temperature	o	o	o	o	o
Digital/Analog I/O	✓	✓	✓	✓	✓
Extra V/EIS*	o	o	o	o	o

✓ Included o Optional

\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

# Vertex

## All round potentio/ galvanostat



Wide range of power configurations

Optional EIS up to 1 MHz



Vertex.One  
Full specs

Various modules and boosters available

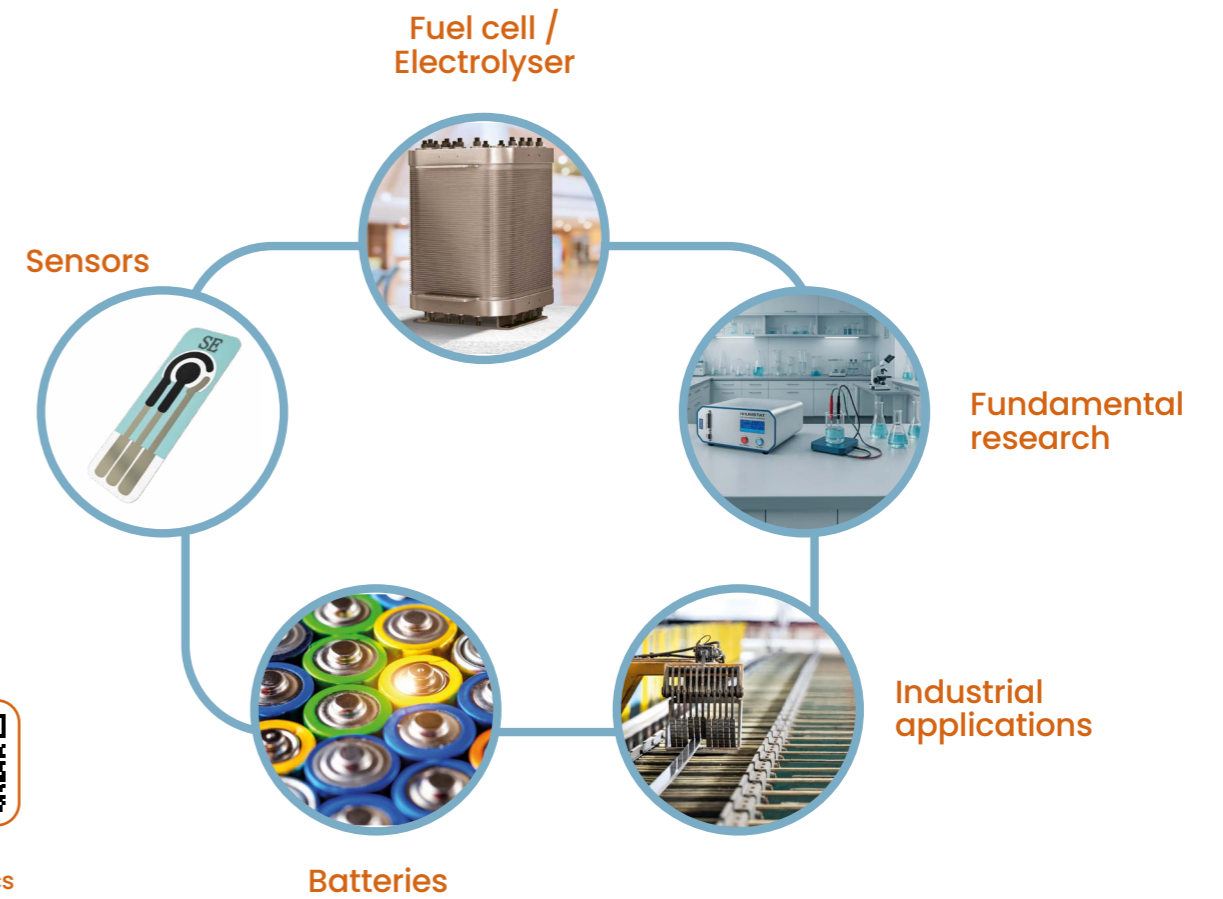
Data acquisition rate 300,000 points/s



Vertex.C  
Full specs

18 bit resolution

Floating mode selectable



MODEL	Vertex	
	One	C
Current compliance	±100mA	±350mA
Maximum output voltage	±21V	±13V
Applied voltage	±10V o ±20V	±10V o ±13V
Current resolution	18 bit min. 3fA	
Data Acquisition rate	300,000 points/s	
EIS	o 10µHz to 250kHz	✓ 10µHz to 1MHz
Floating operation	✓	✓
IR compensation	✓	✓

MODEL	Vertex	
	100mA	1A
Current compliance	±100mA	±1A
Maximum output voltage	±10V	
Applied voltage	±10V	
Current resolution	18 bit min. 3fA	
Data Acquisition rate	300,000 points/s	
EIS	o 10µHz to 1MHz	
Floating operation	✓	✓
IR compensation	✓	✓

### POPULAR MODULES

Bipotentiostat		o	o	o
Multiplexers	o	o	o	o
Power boosters				o
Temperature	o	o	o	o
Digital/Analog I/O	✓ Limited	✓ Limited	✓	✓
Extra E/EIS*	o	o	o	o

✓ Included o Optional  
\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

HIGH CURRENT → HIGH VOLTAGE →

Vertex			Vertex			
5A	10A	20A	30V1A	30V	50V1A	100V
±5A	±10A	±20A	±1A	±2A	±1A	±0.6A
±10V	±5V	±2V	±30V	±30V	±50V	-10V to +100V
±10V	±5V	±2V ±15A at ±2.3V	±10V o ±30V	±10V o ±30V	±10V o ±50V	-10V to +100V
18 bit min. 3fA		18 bit min. 3µA	18 bit min. 3fA			
300,000 points/s			300,000 points/s			
o 10µHz to 1MHz			o 10µHz to 1MHz			o 10µHz to 250 kHz
✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓

o	o		o	o	o	
o		o	o	o		o
o	o		o	o	o	
o	o	o	o	o	o	o
✓	✓	o	✓	✓	✓	✓
o	o		o	o	o	o

✓ Included o Optional  
\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

# pocketSTAT

## Handheld potentio/galvanostat



Portable  
USB powered



Optional battery-  
Bluetooth interface



Lab and  
field use



Low-cost  
entry level



10μHz -1MHz  
EIS integrated



Ultra low  
Current  
10pA



Sensors



Corrosion



Fundamental

MODEL	pocketSTAT.DC	pocketSTAT2	pocketSTAT2.LC
Current compliance		±30mA	
Maximum output voltage		±10V	
Applied voltage		±10V	
Current resolution	<b>24 bit, min. 0.5fA</b>	18 bit, min. 3fA	18 bit, min. 0.3fA
Current ranges	±10nA to ±10mA	±100pA to ±10mA	<b>±10pA to ±10mA</b>
Data Acquisition rate	1,000 points/s	300,000 points/s	
EIS		<b>10μHz to 1MHz</b>	
IR compensation		✓	✓

### POPULAR MODULES

Bipotentiostat			
Multiplexers		○	
Power boosters			
Temperature		○	
Digital/Analog I/O	✓ Limited	✓ Limited	
Extra V/EIS*		○	

✓ Included ○ Optional

\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc.



pocketSTAT.DC  
Full specs



pocketSTAT2  
Full specs



pocketSTAT2.LC  
Full specs

# XP

## High power potentio/galvanostat



High power  
instrument



10μHz -500kHz  
EIS optional



Integrated  
current interrupt



Thermocouple  
connection



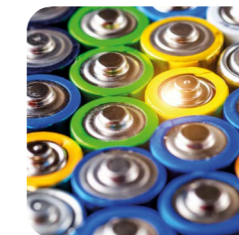
Data acquisition rate  
300,000 points/s



Full I/O  
Interface port



Fuel cell /  
Electrolyser



Batteries



Industry



Full specs

MODEL	XP5	XP10	XP20	XP40
Current compliance	<b>±5A</b>	<b>±10A</b>	<b>±20A</b>	<b>±40A</b>
Maximum output voltage	<b>±100V</b>	<b>±40V</b>	<b>±20V</b>	<b>±10V</b>
Applied voltage	<b>±100V</b>	±10V ○ ±40V	±10V ○ ±20V	±10V
Current resolution	18 bit, min. 3fA			
Data Acquisition rate	300,000 points/s			
EIS	○ 10μHz to 500kHz			
IR compensation	✓	✓	✓	✓

### POPULAR MODULES

Current interrupt	✓	✓	✓	✓
Bipotentiostat		○	○	○
Multiplexers	○	○	○	○
Power boosters				
Temperature	✓	✓	✓	✓
Digital/Analog I/O	✓	✓	✓	✓
Extra V/EIS*	○	○	○	○




✓ Included ○ Optional

\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

# Ivium-n-Stat

## Configurable multi-channel potentio/galvanostat

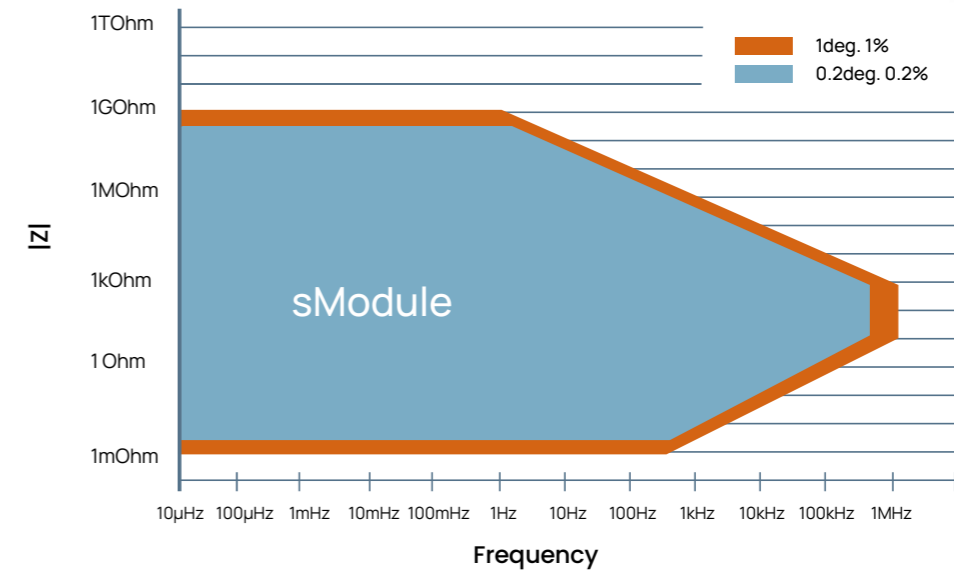


-  1-16 parallel measurements
-  EIS capable (250 kHz/1MHz)
-  Floating mode selectable
-  18 bit resolution
-  Mix and match custom configuration
-  Data acquisition rate 300,000 points/s



Full specs

Expand as you go:  
8 module positions = up to 16 channels



### SINGLE channel modules

HIGH CURRENT → HIGH VOLTAGE →

MODEL	sModule						
	2.5A/10V	5A/10V	10A/5V	20A/2V	2A/30V	1A/50V	100V
Current compliance	±2.5A	±5A	±10A	±20A	±2A	±1A	±0.6A
Maximum output voltage	±10V	±10V	±5V	±2V	±30V	±50V	-10V to +100V
Applied voltage	±10V	±10V	±5V	±2V ±15A at ±2.3 V	±10V o ±30V	±10V o ±50V	-10V to +100V
Current resolution	18 bit min. 3fA	18 bit min. 3fA		18 bit min. 3µA	18 bit min. 3fA		
Data Acquisition rate	300,000 points/s	300,000 points/s			300,000 points/s		
EIS	✓ 250kHz o 1MHz	✓ 10µHz to 250kHz o 10µHz to 1MHz			✓ 10µHz to 250kHz o 10µHz to 1MHz		✓ 10µHz to 250 kHz
Floating operation	✓	✓	✓	✓	✓	✓	✓
IR compensation	✓	✓	✓	✓	✓	✓	✓

#### POPULAR MODULES

Bipotentiostat	o	o	o	o	o	o	o
Multiplexers	o	o	o	o	o	o	o
Power boosters	o	o	o	o	o	o	o
Temperature	o	o	o	o	o	o	o
Digital/Analog I/O	✓	✓	✓	o	✓	✓	✓
Extra E/EIS*	o	o	o	o	o	o	o

✓ Included o Optional  
\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

### DUAL channel modules

MODEL	dModule	
	1A/20V	2.5A/10V
Current compliance	±1A	±2.5A
Maximum output voltage	±20V	±10V
Applied voltage	±10V o ±20V	±10V
Current resolution	18 bit min. 3fA	
Data Acquisition rate	300,000 points/s	
EIS	✓ 10µHz to 250kHz o 10µHz to 1MHz	
Floating operation	✓	✓
IR compensation	✓	✓

#### POPULAR MODULES

Bipotentiostat		
Multiplexers	o	o
Power boosters	o	o
Temperature	o	o
Digital/Analog I/O	✓ Limited	✓ Limited
Extra E/EIS*	o	o

✓ Included o Optional  
\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

# HE80



## Potential/galvanostat optimized for energy conversion applications



High power instrument



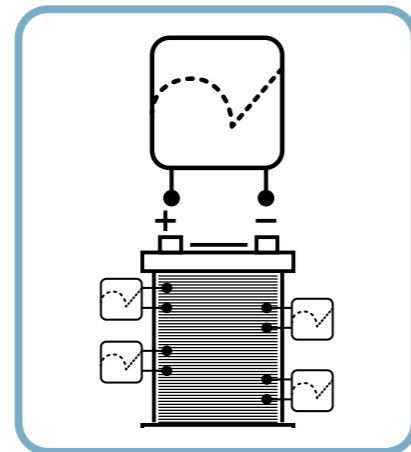
Full I/O



Rack mountable



EIS integrated 10μHz -10kHz



8 additional simultaneous EIS measurements on cell and/or stack



Full specs

MODEL	HE80	
	1 quadrant	4 quadrant
Current compliance	+80A	±80A
Maximum output voltage	+20V	±20V
Applied voltage	+0.5 to 20V	±20V
Current resolution	18 bit min. 0.3mA	
Data Acquisition rate	300,000 points/s	
EIS	✓ 10μHz to 10kHz	
Floating operation		
IR compensation	✓	✓
<b>POPULAR MODULES</b>		
Temperature	○	○
Digital/Analog I/O	✓	✓
Extra E/EIS*	○	○

✓ Included ○ Optional

\*Simultaneous V or EIS on counter electrode, half cells, cells within stack etc

# Instrument Options & Modules

## Data protection, multiplexers, power boosters, LED modulation, Faraday cage, RRDE, etc



DataSecure for independent measurement and data storage



Peripheral I/O functionality modules



Power boosters



Solar cell/light modules



Multiplexers and electrode array testers



Functionality upgrades Bipotentiostat, Linear Scan/ analog sweep



RRDE rotator



Accessories: Electrodes, cells, RRDE tips, etc.



See more

# Software

## Techniques & Analysis



### Time domain

Potentiostatic/galvanostatic techniques: LSV, CV, ACV, CA, CP, OCP, Mixed mode, Pulse/Wave, Tafel plot, ECN, ZRA, CC



### Frequency domain

PEIS, GEIS, DC-potential sweep, DC-current sweep, Equivalent circuit fitting, DRT, Kramers-Kronig



### Control

Batch/multi technique programming, Batch/multi data fitting, DLL control, Sqlite access



### Multi-channel

Up to 128 channels, Trigger channels/peripheral equipment, Multiplex channels, Synchronized start, Parallel measurements



### Battery/Supercap testing

Constant voltage/current (dis)charging, CCCV, EIS, Capacity, Cycle life, Degradation, Testing protocol, Real time analysis



Download software

# Worldwide representation



Sales  
network

## Contact our dedicated team and partners

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