

Model 273A

potentiostat/galvanostat



- Superior quality and high reliability - The benchmark for electrochemical instrumentation
- 100 V compliance, 1A current output
- Combine with FRD and /92 option to perform EIS up to 100kHz
- Front panel or computer control
- 10A and 20A current booster options

Specifications

Power Amplifier	
Compliance Voltage	>±100 V
Maximum Current	>±1.0 A
Voltage Temperature Stability	<50 $\mu\text{V}/^\circ\text{C}$
Slew Time	>10 V/ μs (high speed)

iR Compensation	
Positive Feedback Range	Range: 20 M Ω to 2 Ω (depending on current range)
Current interrupt	Digital Potential Error Correction: 12 bit DAC Total Interruption Time: <200 μs Switching Time, On/OFF: <1 μs (1 k Ω resistance cell)

Current Measurement	
Ranges	8 decades, 1 A to 100 nA
Accuracy (dc)	10 μA to 1 A: <0.2% of range 100 nA and 1 μA Ranges: <0.5% of range ± 5 nA max (± 1 nA typical)

Differential Electrometer	
Input Bias Current	< 20 pA at 25 $^\circ\text{C}$
Offset Voltage	<10 μV
Offset Temperature Stability	<10 $\mu\text{V}/^\circ\text{C}$
Bandwidth	Small Signal: >8 MHz Full Signal: >400 kHz
Common Mode Rejection	>70 dB at 100 Hz >60 dB at 100 kHz
Input Impedance	>10 ¹⁰ Ω in parallel with <50 pF
Maximum Input Voltage	Differential: $\pm 10\text{V}$ Reference Input: ± 11 V

General	
Power	100-130 V or 200-260 V, 50-60 Hz, 350 watts maximum
Dimensions	48 cm W x 30 cm H x 51 cm D 19" W x 12" H x 20" D
Weight	31 kg (68 lbs)
Computer Interface	IEEE-488 (GPIB) RS-232C

Potentiostat/Current Control	
Bias DAC	14 bits Resolution ± 8 V Range (Potentiostat) $\pm 200\%$ of full scale current (Galvanostat)
Modulation DAC	14 bits Resolution ± 2 V Range (Potentiostat) $\pm 200\%$, $\pm 20.00\%$, and $\pm 2.00\%$ of full scale current (Galvanostat)
Accuracy	Applied potential: 0.2% of reading ± 2 mV Applied current: 0.2% of full-scale current

System	
Rise Time	(10% to 90% on high-speed setting) No Load: <750 ns 1 Ω , 1 A: <3 μs 10 k Ω , 100 μA : <2 μs
Noise and Ripple	typically < 25 μV rms referred to external input

Recommended Options and Accessories

PowerCV Cyclic Voltammetry Software
PowerSTEP Chronoamperometry and Chronopotentiometry Software
PowerCORR Corrosion Measurement Software
PowerSINE Electrochemical Impedance Software
Model 273A/92 Electrochemical Impedance Option
Model 303A Static Mercury Drop Electrode
Model 307A Interface for Model 303A
Model 377A Coulometry Cell System
Model 616 Rotating Disk Electrode
Model 636 Ring/Disk Electrode
Model G0224 Gold Microelectrode
Model G0225 Platinum Microelectrode
Model G0226 Glassy Carbon Microelectrode
Model K0047 Corrosion Cell Kit
Model K0206 Rack Mounting Kit
Model K0235 Flat Cell Kit
Model K0264 Microcell Kit
Model K0269 Faraday Cage Kit

These accessories are available separately or as part of a complete system. All software operates with Windows 95/98/2000/NT/XP. For the latest features, prices, and availability, contact your local salesman or the factory.



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Specifications subject to change
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