California Instruments

EC1000S
Power Systems
1 kVA Programmable Bench-Top AC and DC Power Source / Analyzer

CE

750 VA - 1 KVA
115 V / 230 V input

Bench-top Portability
Compact, light , and portable

Large LCD Screen
Large 5.7 LCD makes it easy to view settings and measurement values on a single screen

Measurement Capabilities
Measures voltage, current, electrical power, frequency, power factor, CF, and harmonic current

Powerful Measurement Features
Measurement value logging, sequence editing, and creation of arbitrary waveform using the control software

Current Limiter
Up to 4X peak output current, voltage, frequency limiter setting

Quick Connect
USB interface makes connections simple

Sequencing
Program output patterns for powerful flexibility

Portable Flexibility
The EC1000S not only supplies AC and DC power, it also allows free programming of outputs such as instantaneous interruption, voltage sweep, and voltage variation patterns. The EC1000S has essential functions for power tests, including a variety of output measurements and measurements related to the load power supply input. In addition, while the EC1000S can output as much as 1kVA @ 200V, it's desktop size makes it an extremely convenient, yet powerful choice for AC and DC applications.

Measurements
Powerful features for measuring frequencies, load power factors, crest factors (CF) and even harmonic currents, in addition to the voltage and current. Settings and measurements are simultaneously displayed on the large 5.7 LCD.

Test Applications
Program output variation patterns used to test the power supplies of devices and parts. Simultaneous sweeping of frequency and voltage and arbitrary waveforms are supported.

Instrument Control Software
Sophisticated software tools with a logging function for importing/saving measurement value data, facilitating creation of reports, data analysis, and other operations. Includes a sequence function to edit, execute, save and operate a series of output variation patterns. Includes an arbitrary waveform creation function to easily create robust waveforms.

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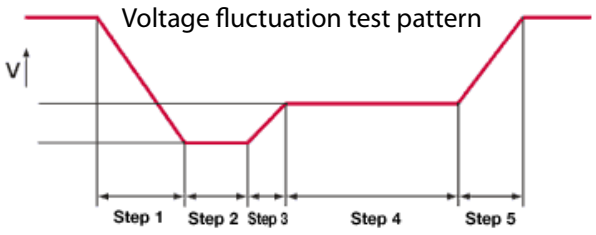
Specifications

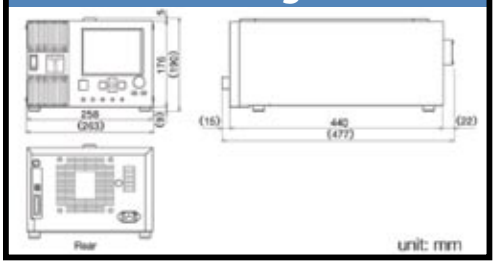
Model	EC1000S	
Output		
Maximum Output:	AC: 750 VA (100V - 180V), 1,000 VA (180V - 250V)	DC: 750 W (100V - 180V), 1,000 W (180V - 250V)
Modes (8):	AC-INT, AC-EXT, AC-ADD, AC-SYNC, AC+DC-INT, AC+DC-EXT, AC+DC-ADD, AC+DC-SYNC	
Voltages:	AC: 100V Range: 0.0V-135.0V; 200V Range: 0.0V-270.0V	DC: 100V Range: ±190.0V; 200V Range: ±380.0V
Maximum Current:	AC/DC: 100V Range: 10A; 200V Range: 5A	Maximum Peak: 100V Range: 40 Apk; 200V Range: 20 Apk
Frequency Setting Range:	1.0 Hz-550.0 Hz (resolution 0.1 Hz); Accuracy: ± 100ppm	
Phase (Output on):	Setting Range: 0.0° to 359.9° (Resolution: 0.1°)	
Voltage Waveform:	Sine-wave, Square-wave, Arbitrary-wave (up to 16 types can be saved)	
Voltage Distortion Rate:	0.5% maximum (50Hz/60Hz)	
Load Regulation:	0.5% maximum (at output terminal under no load and rated resistance load)	
Line Regulation:	0.2% maximum (power input voltage: 100V/120V/230V, no load, rated output)	
Measurements		
Output Voltage/Current/Power:	V: DC Average value, effective value, peak value; C: + peak value hold, P: Active power, apparent power, and reactive power	
Load Power Factor/Crest Factor:	Power Factor Range: 0.00-1.00; Crest Factor Range: 0.00-50.00	
Output - Harmonic Current:	Range: Up to 40th-order (AC internal oscillation mode, fundamental wave: 50/60Hz)	
External Sync Frequency:	Range: 38.0-525.0 (external synchronization mode)	
Input		
Voltage Range:	AC 100V - AC 230V ± 10% (250V max.) 50Hz/60Hz ± 2Hz (single phase)	
Power Consumption/Factor:	1.4 kVA max./0.95min (AC 100V), 0.9min (AC 200V)	
Mechanical Specifications		
Dimensions	H: 5.25" (258mm) W: 19" (176mm) D: 23" (44mm)	
Weight:	20 lbs (9.5kg)	
Operating Temperature:	0-40°C, 5-85% RH (absolute humidity must be within 1-25g/m^3, no condensation)	

EC1000S Sequence Feature

← Sequence Function Setting Screen (set for each step)



External Drawings



Rear Panel

Note: Specifications are subject to change without notice. Specifications are warranted over an ambient temperature range of 25°± 5°C. Unless otherwise noted, specifications are per phase for a sinewave with a resistive load and apply after a 30 minute warm-up period.

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