

CHROMA

6530

The Chroma 6530 is a high-performance, programmable AC/DC power source designed for simulating a wide variety of power line disturbances. Delivering up to 3000 VA of single-phase power, it features powerful wave synthesis capabilities (sine, square, and programmable arbitrary waveforms), precise measurement readbacks, and comprehensive protection features, making it ideal for standard testing, R&D, and production environments.

SPECIFICATIONS

General

Interfaces	GPIB, RS-232, Analog Programming
Display	LCD Display

Physical

Power Supply	190 - 250 VAC, Single Phase, 47 - 63 Hz
Operating Temperature	0 to 40 °C °C
Dimensions (W×H×D)	425 × 221.5 × 567 mm mm
Weight	45.0 kg

AC Output Specifications

Maximum AC Power Rating	3000 VA
Output Phase Configuration	Single Phase
AC Voltage Ranges	0 - 150 V / 0 - 300 V
AC Voltage Resolution	0.1 V
Maximum RMS Current (150V Range)	30 A
Maximum RMS Current (300V Range)	15 A
Maximum Peak Current (150V Range)	120 A
Maximum Peak Current (300V Range)	60 A
Frequency Range	45 Hz - 1000 Hz
Frequency Resolution	0.1 Hz (45 - 99.9 Hz), 1 Hz (100 - 1000 Hz)
Crest Factor	4
Total Harmonic Distortion (THD)	< 0.5% (45 - 100 Hz), < 1% (100 - 1000 Hz) with resistive load
Voltage Line Regulation	0.1% of Full Scale
Voltage Load Regulation	0.2% of Full Scale

DC Output Specifications

Maximum DC Power Rating	1500 W
DC Voltage Ranges	0 - 212 V / 0 - 424 V
Maximum DC Current (150V Range)	15 A
Maximum DC Current (300V Range)	7.5 A

Measurement & Readback

Voltage Measurement Resolution	0.1 V
Current Measurement Resolution	0.01 A
Power Measurement Resolution	1 W
Measured Parameters	Voltage (RMS, DC, Peak), Current (RMS, DC, Peak), Power (Active, Apparent), Power Factor, Crest Factor

Transient & Waveform Generation

Output Waveform Types	Sine, Square, Arbitrary
Programming Modes	Step, Pulse

Protection Features

Protection Features	Overvoltage (OVP), Overcurrent (OCP), Overpower (OPP), Overtemperature (OTP), Fan Fail
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Input Power Requirements

Input Phase Configuration	Single Phase
Input Voltage Range	190 - 250 VAC
Input Frequency Range	47 - 63 Hz

Physical & Environmental Specifications

Rack Height Units (U)	5U
Operating Humidity Range	0% to 90% RH (non-condensing)
Cooling Method	Forced air cooling

Output Programming

AC Voltage Programming Accuracy	$\pm(0.2\% \text{ of setting} + 0.2\% \text{ of range})$
DC Voltage Programming Accuracy	$\pm(0.2\% \text{ of setting} + 0.2\% \text{ of range})$
Frequency Programming Accuracy	$\pm 0.1\%$
Phase Angle Programming Range	0 to 360°

Measurement

Voltage Measurement Accuracy	±(0.1% of reading + 0.2% of range)
Current Measurement Accuracy (RMS)	±(0.2% of reading + 0.4% of range)
Power Measurement Accuracy	±(0.4% of reading + 0.8% of range)
Harmonic Measurement Range	Up to 40th order
Power Factor Measurement Resolution	0.001
Crest Factor Measurement Resolution	0.01

Features

Remote Sensing Compensation	5 V
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Electrical Input

Maximum Input Current	25 A
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Environmental

Storage Temperature	-40°C to 85°C
Storage Humidity Range	< 95% RH (non-condensing)

Output Specifications

Phase Angle Programming Resolution	0.1°
DC Voltage Programming Resolution	0.1 V

Waveform Generation

Arbitrary Waveform Vertical Resolution	12-bit
Arbitrary Waveform Points	1024 points

Interfaces

External Analog Input Range	0 to 10 V
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Compliance

Safety Compliance	EN 61010-1
EMC Compliance	EN 55011, EN 50082-1

TECHNOLOGY

Programmable AC/DC Power Source

APPLICATIONS

Power Line Disturbance Simulation, R&D, Compliance Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.