

Guardian

6200 Production Safety Analyzer

USES :

- Production Testing of Electrical Products such as Blenders, Fans and Other Small Appliances, in Accordance with UL, CSA, and IEC Standards
- Electrical Safety Compliance Testing on a Variety of Products and Devices

FEATURES :

- Programmable output voltage to 5KV AC and 6KV DC
- Ground Bond Testing to 30A AC with Adjustable Limit
- Monitoring of DUT Current Draw
- Monitoring of DUT Power Consumption
- Line/Earth Leakage Current Measurement(UL1563 /UL1950) with 5 Human Body Models
- Insulation Resistance Measurements from 100k Ω to 50G Ω
- Programmable Ramp and Test Times
- Storage of 50 Tests Setups with 10 Steps per Setup
- Continuous Leakage Current Monitoring
- Trip Current Programmable to 40mA AC and 20mA DC
- Front Panel Lockout via Password
- Standard IEEE and Remote Control Interfaces
- Optional RS232 Interface

For Single Phase Electrical Products

Introduction

The Guardian 6200 is designed for fast, easy, production testing of electrical products such as blenders, fans, and other small appliances in accordance with UL, CSA, and IEC standards. Without changing the connection to the product, the tester is able to perform all the essential electrical safety tests in one unit, including AC/DC Hipot, Insulation Resistance, Ground Bond, Current Draw and Power Consumption measurements. Performing all these tests in one box increases production by reducing test time and eliminating multiple test stations.

Description

AC Hipot Test Performs AC dielectric testing (hipot) over the voltage range from 50 to 5000VAC RMS. Leakage current detection is programmable from 1 μ A to 40mA, making the 6200 ideal for testing medical products and instruments having a wide range of leakage currents.

DC Hipot Test DC dielectric testing is possible from 50 to 6000VDC with leakage current detection down to 0.1 μ A. The maximum total output current of 20mA allows quick charging of capacitive devices and products.

Insulation Resistance The insulation resistance test (similar to DC Hipot) calculates and displays a product's insulation resistance value in ohms. This resistance can be measured over the range of 100k Ω to 50G Ω with test voltages programmable from 50 to 1000VDC.

Ground Bond The ground bond test, sometimes referred to as a high current continuity test, can be programmed from 1 to 30A for verifying the integrity of a product's ground system. Resistance measurements are displayed and a high limit programmable between 0.1m Ω and 510m Ω .

Power Monitoring/Functional The 6200 can monitor voltage across, current draw, or power consumption of the product under test. This allows a manufacturer to functionally test the product and verify that power consumption is within acceptable limits after performing the final electrical safety tests. Additionally, for compliance testing of electrical products, the analyzer can perform line/earth leakage tests in four possible configurations, five human body models, with programmable limits from 0.1 μ A to 9.999mA.

Note: This test requires input isolation transformer for proper operation

For more detailed specifications, visit
www.quadtech.com

For more information about special purchase,
rent & lease options, call

1-800-253-1230
Fax 1-978-461-4295
Int'l. 1-978-461-2100



HIPOT LCR METERS MEGOHMMETERS MILLIOHMMETERS DECADES STANDARDS

Guardian 6200

AC Output Voltage:

	Range: 50V to 5000V AC, 1V resolution Frequency: 50 or 60 Hz Programmable Waveform: Sinusoidal Regulation: <(1% +5V) at Rated Load
Voltage Display:	Accuracy: +/- (1% of reading + 5V) Resolution: 1V Δ t
AC Current Display:	Total current Range: 1 A to 40mA AC Resolution: 0.001mA Accuracy: +/- (1% + 5cnt)
High/Low Limit Test:	1 A to 40mA AC Low limit can be turned OFF
Arc Detection:	Programmable Level and OFF, 0.001mA/step

DC Output Voltage:

	Range: 50V to 6000V DC, 1V resolution Regulation: <(1% +5V) at Rated Load
Voltage Display:	Accuracy: +/- (1% of reading + 5V) Resolution: 1V Δ t
DC Current Display:	Range: 0.1 A to 20mA DC Resolution: 0.0001mA Accuracy: +/- (1% or reading + 5cnt)
High/Low Limit Test:	0.1 A to 20mA DC Low limit can be turned OFF
Arc Detection:	Programmable Level and OFF, 0.001mA/step

Insulation Resistance:

	Range: 100k Ω - 50G Ω Accuracy: +/- 5% to +/- 15% depending upon voltage and resistance
Voltage Range:	50V to 1000V DC
Voltage Accuracy:	+/- (1% of setting + 5V)
High/Low Limit Test:	100k Ω - 50G Ω Low limit can be turned OFF
IR Test Delay:	0.3 to 99.9 seconds Programmable in 0.1 second steps

Ground Bond:

Output Current:	Range: 1.0 to 30.0A AC, setting 0.1A/step Accuracy: +/- (1% of setting + 0.3A)
Display:	+/- (1% of reading + 3 counts)
Frequency:	50 or 60Hz Selectable
No Load Voltage:	6 to 15 V Programmable
Resistance:	Range: 0.1m Ω - 510.0m Ω , 4 digits Accuracy: +/- (1% of reading + 3 counts) Resolution: 0.1m
Hi Limit:	0.1m Ω to 510m Ω
Offset Function:	0 to 100m Ω offset, user selectable
Test Time:	0.5 - 999sec (+/-20ms)

Ordering Information

Guardian 6200 Production Safety Analyzer	G30	Corded Product Adapter (115V)	G26	RS232 Interface
Includes:			G27	Rack Mount Flanges
Guardian 6000 Electrical Safety Analyzer		Power Cable	G28	Printer Interface (replaces IEEE 488)
6000-04 Line Leakage Current Scan Unit		Calibration Certificate Traceable to NIST		
150528 Instruction Manual		Optional Accessories	G31	Isolation Transformer (500VA)
S02 HV Lead Set, 1m		Calibration Data	G32	Isolation Transformer (1000VA)
G15 Ground Continuity Lead Set	S05	Foot Switch		

Functional/Power Consumption:

Line Voltage Meter:	0 - 300VAC, +/- (1% of reading + 5 cnts)
Line Current Meter:	0 - 10A, +/- (5% of reading)
Line Power Meter:	1 - 2200VA

Line Leakage Current:

Input Voltage:	Range: 0V to 300V AC, 50 or 60Hz.
AC Current Display:	Range Resolution Accuracy 0.0001mA - 0.59mA 0.0002mA +/- (2% + 5cnts) 0.6mA - 9.999mA 0.003mA +/- (2% + 5cnts)
Current Trip Limits:	0.1 A to 9.999mA, 1 A Resolution
Measuring Circuit:	5 Types of Human Body Models in accordance with UL544 NP, UL544P, UL1563, UL2601-1, IEC601-1, IEC 950, UL1950, UL3101 Standards
Measurement Modes:	Normal, Reverse and Single Fault
Max. DUT Current:	10A

Common Features:

AC/DC Test Time:	Ramp: 0.1 to 99.9s (+/-20ms) Test: 0.1 to 999s (+/-20ms) and Continuous
Remote Control:	Inputs: Start, Stop Outputs: Pass/Fail/Under Test Connector: Terminal Strip and 9 pin D Series
Test Setups:	50 Test Setups with 10 Steps each
Rear Connectors:	Input: Binding Posts (line & neutral) Isolation transformer (not included) is required for proper operation (10A, 300V max) Output: High Voltage Sockets for connection to 115V corded adapter, G30 (included)
Front Panel Lockout:	Password
Safety Features:	Fast Cutoff (<0.4ms) and Fast Discharge
Miscellaneous:	Continuous Voltage on Fail Scanner Delay: 0.1 to 99.9, 0.1s/step
Indication:	Pass/fail lights, audible sound
Buzzer Level:	1,2,3 and Off
Interface:	IEEE-488 Standard, RS-232 Optional
Dimensions:	(w x h x d): 16.875x5.625x20.50in (421.9x140.6x512.5mm)
Weight:	53 lbs (24kg) - Net, 60 lbs (27kg) Shipping
Environmental:	Operating: 0 to + 40 C, Humidity: <75% Storage: - 20 to + 70 C Warm-up Time: 1minute
Power:	90 - 130V AC 50 or 60Hz 200 - 250V AC 500W max

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