

QUADTECH

Guardian 6000

The QuadTech Guardian 6000 is an advanced, multi-function electrical safety analyzer designed for comprehensive safety testing, including AC/DC hipot, insulation resistance, and ground bond tests.

SPECIFICATIONS

General

Interfaces	RS-232, Remote I/O (PLC), GPIB (optional)
Display	320 x 240 backlit LCD

Physical

Power Supply	115 / 230 V AC $\pm 10\%$ (switchable), 50/60 Hz
Operating Temperature	0 to 40 °C
Dimensions (W×H×D)	430 × 132 × 450 mm mm
Weight	15 kg kg
Rack Mounting	Optional 19-inch rack mount kit

AC Dielectric Withstand (AC Hipot)

Output Voltage Range	0.050 kV to 5.000 kV AC
Voltage Resolution	1 V
Voltage Accuracy	$\pm(1\% \text{ of setting} + 5 \text{ V})$
Output Frequency Range	50 Hz / 60 Hz (selectable)
Output Waveform	Sine wave
Max Rated Current	40 mA AC
Current Measurement Range	0.001 mA to 40.00 mA AC
Current Resolution	1 μA
Current Accuracy	$\pm(1\% \text{ of reading} + 5 \mu\text{A})$
Arc Detection Threshold Range	1 mA to 20 mA

DC Dielectric Withstand (DC Hipot)

Auto-Discharge Device Function	Yes
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Insulation Resistance (IR)

Resistance Measurement Range	0.1 M Ω to 50 G Ω
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Ground Bond / Continuity (GB)

Test Current Range	3.0 A to 30.0 A AC
Test Frequency	50 Hz / 60 Hz (selectable)
Resistance Accuracy	±(1% of reading + 3 mΩ)
Voltage Limit Range	Open circuit voltage < 15 V AC

Test Control & Timing

Ramp-Up Time Range	0.1 s to 999 s
Dwell Time (Test Time) Range	0.1 s to 999 s (or continuous)
Ramp-Down Time Range	0.1 s to 999 s
Timing Resolution	0.1 s
Timing Accuracy	±(0.1% + 0.05 s)

Safety & Protection Features

Ground Fault Interrupt (GFI) Trip Current	0.5 mA threshold
Safety Interlock Type	Hardware interlock via rear panel terminal
Fast Cut-Off Response Time	< 0.4 ms
Visual Fail/Pass Indicators	Green (Pass) and Red (Fail) LEDs
Audible Alarm Output	Yes, volume adjustable

System, Memory & Programming

Step Link / Auto-Sequence Capability	Yes
Front Panel Controls	Tactile numeric keypad and function keys
Key Lock / Security Password Protection	Yes

Connectivity & Interfaces

Barcode Scanner Port	Supports RS-232 barcode scanner input
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Measurement Features

Open Short Check (OSC)	Yes
High Voltage Contact Check (HFCC)	High Frequency Contact Check (HFCC)

Leakage Current Mode

Leakage Current Test Types	Earth, Enclosure, Patient, Patient Auxiliary
Built-in Measuring Devices (MD)	8 selectable networks representing human body impedance per medical/general standards

AC Hipot Test

AC Hipot Voltage Range	50 V - 5000 V AC
AC Hipot Power Rating	200 VA

DC Hipot Test

DC Hipot Voltage Range	50 V - 6000 V DC
DC Hipot Power Rating	60 W

Insulation Resistance Test

Insulation Resistance Voltage Range	50 V - 1000 V DC
Insulation Resistance Measurement Range	100 kΩ - 50 GΩ

Ground Bond Test

Ground Bond Test Current Range	3.0 A - 30.0 A AC
Ground Bond Resistance Range	0.1 mΩ - 510 mΩ

Functional Run Test

Functional Run Test Voltage Range	0 V - 277 V AC
Functional Run Test Current Range	0.1 A - 15.0 A AC

Line Leakage Test

Line Leakage Current Range	0.1 μA - 10.0 mA
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Interfaces & Control

Remote Control Signals	Start, Stop, Interlock, Pass, Fail, Under Test
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Calibration & Maintenance

Calibration Traceability	NIST traceable
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TECHNOLOGY

Hipot Testing & Ground Bond Analysis

APPLICATIONS

Electrical Safety 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.