440 SERIES

VERSATILE 4-IN-1 FUNCTIONALITY

INTUITIVE USER INTERFACE

40A GROUND BOND CAPABILITY

20 PROGRAMMABLE MEMORIES

EASILY AUTOMATE FOR DATA COLLECTION

REMOTE SAFETY INTERLOCK

EASILY SAFEGUARD YOUR WORKSTATION WITH PPE ACCESSORIES

The **440 Series** provides advanced 4-in-1 test capability in a convenient one-box solution. This new series performs AC Hipot (448 - 500 VA), DC Hipot, Insulation Resistance and 40A AC Ground Bond tests while taking up minimal production line space. The **440 Series** is simple and easy-to-use; reducing setup time and increasing production line throughput for your application. With multiple memories and an optional USB port for remote BUS communication so you can quickly perform tests on a variety of DUTs from the front panel or with a PC.

	AC Hipot	DC Hipot	Insulation Resistance	40A Ground Bond
446	•	•	•	•
448	500VA	•	•	•

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RELEVANT APPLICATIONS

APPLIANCE
INDUSTRIAL EQUIPMENT
INFORMATION TECHNOLOGY
CONTRACT MANUFACTURING
LABORATORY EQUIPMENT

WHAT'S IN THE BOX

33189	Power Cord (10A) 6ft - *446 Model
38071	Power Cord (15A) 6ft - *448 Model
99-10783-01	Fuse 10A Slow Blow 20mm - *446 Model
99-10168-01	Fuse 15A Fast Blow 30mm - *448 Model
38075	Interlock Connector Male
40428	Ground Bond Test Lead
40429	Ground Bond Return Lead
04040A-08	High Voltage Test Lead 6ft
99-10797-01	USB A-B 1.8M Cable

All testers come with the accessories you need to run a test right out of the box.

OPTIONS

Description	446	448
Rear Outputs	•	•
USB Port	•	•

SCI 448 Model

SERIES FEATURES

Test Setup Memories

Frequency Selection

Ramp

Dwell

Low Current Sense

Safety Agency Listed

PLC Remote

USB (optional)

On the Go Portability

Intuitive User Interface

440 SERIES SPECIFICATIONS

INPUT (446 and 448)

Voltage	100 - 120Vac / 200 - 240Vac±10% Auto Range	
Frequency	50/60Hz ± 5%	
Fuse	446	10A / 250Vac Slow-Blow
	448	15A / 250Vac Fast-Blow

DIELECTRIC WITHSTAND TEST MODE

Output Rating	446	5 KV @ 20 mA AC 6 KV @ 5 mA DC
	448	5 KV @ 99.99 mA AC 6 KV @ 10 mA DC
Voltage Setting/Display	Range	0 – 5.00 KV AC 0 – 6.00 KV DC
	Resolution	0.01
	Accuracy	± (2% of setting + 5V)
Current Display	446	Range: 0 - 20.00 mA AC, 0 - 5.00 mA DC Resolution: 0.01 mA Accuracy: ± (2% of reading + 0.02 mA)
	448	Range: 0 - 99.99 mA AC, 0 - 10.00 mA DC Resolution: 0.01 mA Accuracy: ± (2% of reading + 0.06 mA)
Hi-Limit **Lo-Limit**	446 AC	Range: Lo-Limit 0 - 20.00 mA, Hi-Limit 0.10 – 20.00 mA Resolution: 0.01 mA Accuracy: ± (2% of setting + 2 counts)
	446 DC	Range: Lo-Limit 0 - 5.00 mA, Hi-Limit 0.02 – 5.00 mA Resolution: 0.01 mA Accuracy: ± (2% of setting + 2 counts)
	448 AC	Range: Lo-limit 0 - 99.99 mA, Hi-Limit 0.10 – 99.99 mA Resolution: 0.01 mA Accuracy: ± (2% of reading + 6 counts)
	448 DC	Range: Lo-Limit 0 - 10.00 mA, Hi-Limit 0.02 – 10.00mA Resolution: 0.01 mA Accuracy: ± (2% of reading + 6 counts)
Failure Detector	Audible and Visual	
DC Output Ripple	446	<5 % (6KV / 5mA at Resistive Load)
	448	<5 % (6KV / 10mA at Resistive Load)
Discharge Time	446	< 50 ms for no load, < 200 ms for capacitor load
	448	< 50 ms for no load, < 100 ms for capacitor load
Max. Capacitive Load in DC Mode	1µF < 1KV 0.75µF < 2KV 0.5µF < 3KV	0.08µF < 4KV 0.04µF < 5KV 0.015uF < 6KV
AC Wave Form	Sine Wave, Crest Factor = 1.3 - 1.5 and output voltage > 300V	
AC Output Frequency	50Hz/60Hz ± 0.1%, User Selection	

DIELECTRIC WITHSTAND TEST MODE (Cont.)

Output Regulation	± (1% of output + 5V), From no load to full load	
Dwell Timer	Range: Resolution: Accuracy:	0, 0.2 - 60.0 (0=continuous) 0.1 ± (0.1% of setting + 0.05 sec)
Ramp Timer	Range: Resolution: Accuracy:	0.2-180.0 0.1 ± (0.1% of setting + 0.05 sec)

INSULATION RESISTANCE TEST MODE

Output Voltage, VDC	Range: Resolution: Accuracy:	100 - 1000 1 ± (2% of setting + 5V)
Hi-Limit resistance, MΩ	Range: Resolution: Accuracy:	0, 1 - 1000 (0 = OFF) 1 100-499V ± (7% of setting + 2 counts)
Lo-Limit resistance, MΩ	Range: Resolution: Accuracy:	1 - 1000 1 500-1000V ± (3% of setting + 2 counts)
Ramp Time , second	Range: Resolution: Accuracy:	0.1 or 2.0 0.1 ± (0.1% of setting + 0.05 sec)
Delay Time, second	Range: Resolution: Accuracy:	0, 0.5 - 999.9 (0=continuous) 0.1 ± (0.1% of setting + 0.05 sec)

Specifications subject to change without notice.

440 SERIES SPECIFICATIONS

GROUND BOND

Output AC Current, A	Range: Resolution: Accuracy:	1.0 – 40.0 0.1 ± (2 % of setting + 2 counts)
Output AC Voltage, V	8V(Fixed)	
Output Frequency, Hz	50Hz/60Hz ± 0.1%, User Selectable	
Maximum Loading	1.0–10.0A/0–600mΩ,10.1–30.0A/0–200mΩ, 30.1–40.0A/0–150mΩ	
Offset, mΩ	Range: Resolution: Accuracy:	0-100 1 ± (2 % of setting + 2 counts)
HI and LO-Limit Resistance, mΩ	Range: Resolution: Accuracy:	0 – 150 (30.1-40.0A) 1 ± (2 % of setting + 2 counts)
	Range: Resolution: Accuracy:	0 – 200 (10.1-30.0A) 1 ± (2 % of setting + 2 counts)
	Range: Resolution: Accuracy:	0 – 600 (1.0-10.0A) 1 ± (2 % of setting + 2 counts)
Fix Ramp Timer, second	Range: Resolution: Accuracy	0.4 0.1 ± 0.05 sec
	0-250mOhm à 0.1sec ramp up 251-300mOhm à 0.2sec ramp up 301-450mOhm à 0.3sec ramp up >450mOhm = 0.4sec	
Dwell Timer, second	Range: Resolution: Accuracy	0, 0.1 - 240.0 (0 = continuous) 0.1 ± 0.05 sec

GENERAL SPECIFICATIONS

Memories	Allows storage of up to 20 different test programs and a single step mode	
Remote I/O	Input: Output:	Test, Reset, Interlock & Recall Memory 1 – 6 Pass, Fail, Test-in-Process
Interface	USB (Optional)	
Security	Lockout capability to avoid unauthorized access to test set-up programs	
Calibration	Software and adjustments made through the front panel	
Dimension	446	280mm(W) ×89mm(H) × 400 mm(D)
	448	430mm(W) ×132mm(H) × 400 mm(D)
Weight	446	18lbs (8kg)
	448	53lbs (24kg)

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