

# 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	<b>500VA</b>	•	•	•

## RELEVANT APPLICATIONS

APPLIANCE CONTRACT MANUFACTURING  
 INDUSTRIAL EQUIPMENT LABORATORY EQUIPMENT  
 INFORMATION TECHNOLOGY

## WHAT'S IN THE BOX

- 125-013-001 Power Cord (10A) 6ft - \*446 Model
- 99-10164-01 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
- 99-10040-01 Interlock Connector Male
- 99-10866-01 Ground Bond Test Lead
- 99-10865-01 Ground Bond Return Lead
- 102-055-913 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

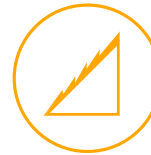
## SERIES FEATURES



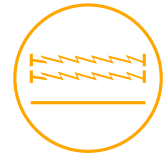
Test Setup Memories



Frequency Selection



Ramp



Dwell



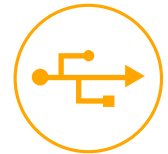
Low Current Sense



Safety Agency Listed



PLC Remote



USB (optional)



On the Go Portability



Intuitive User Interface

# 440 SERIES SPECIFICATIONS

MODEL	SCI 446			SCI 448		
<b>INPUT</b>						
Voltage	100 - 120Vac / 200 - 240Vac $\pm$ 10% Auto Range					
Frequency	50/60Hz $\pm$ 5%					
Fuse	10A / 250Vac Slow-Blow			15A / 250Vac Fast-Blow		
	Range	Resolution	Accuracy	Range	Resolution	Accuracy
<b>AC WITHSTAND VOLTAGE</b>						
Output Voltage, KVAC	0-5.00	0.01	$\pm$ (2% of setting + 5V)	0-5.00	0.01	$\pm$ (2% of setting + 5V)
Output Frequency	50Hz/60Hz $\pm$ 0.1% , User Selection,			50Hz/60Hz $\pm$ 0.1% , User Selection,		
Output Waveform	Sine Wave, Crest Factor = 1.3 - 1.5 and output voltage > 300V			Sine Wave, Crest Factor = 1.3 - 1.5 and output voltage > 300V		
Output Regulation, Vrms	$\pm$ (1% of output + 5V), From no load to full load and Low Line to High Line (combined regulation)			$\pm$ (1% of output + 5V), From no load to full load and Low Line to High Line (combined regulation)		
Hi-Limit AC current, mA	0.10-20.00	0.01	$\pm$ (2% of setting + 2 counts)	0.10-99.99	0.01	$\pm$ (2% of setting + 6 counts)
Lo-Limit AC current, mA	0.00-20.00	0.01	$\pm$ (2% of setting + 2 counts)	0.00-99.99	0.01	$\pm$ (2% of setting + 6 counts)
Ramp Time, second	0.2-180.0	0.1	$\pm$ (0.1% of setting + 0.05 sec)	0.2-180.0	0.1	$\pm$ (0.1% of setting + 0.05 sec)
Dwell Time, second	0, 0.2 - 60.0 (0=continuous)	0.1	$\pm$ (0.1% of setting + 0.05 sec)	0, 0.2 - 60.0 (0=continuous)	0.1	$\pm$ (0.1% of setting + 0.05 sec)
<b>DC WITHSTAND VOLTAGE</b>						
Output Voltage, KVDC	0 -6.00	0.01	$\pm$ (2% of setting + 5V)	0 -6.00	0.01	$\pm$ (2% of setting + 5V)
DC Output Ripple, Vrms	<5 % (6KV / 5mA at Resistive Load)			<5 % (6KV / 10mA at Resistive Load)		
Hi-Limit DC current, mA	0.02 - 5.00	0.01	$\pm$ (2% of setting + 2 counts)	0.02 - 10.00	0.01	$\pm$ (2% of setting + 2 counts)
Lo-Limit DC current, mA	0.00 - 5.00	0.01	$\pm$ (2% of setting + 2 counts)	0.00 - 10.00	0.01	$\pm$ (2% of setting + 2 counts)
Ramp Time, second	0.2 - 180.0	0.1	$\pm$ (0.1% of setting + 0.05 sec)	0.2 - 180.0	0.1	$\pm$ (0.1% of setting + 0.05 sec)
Dwell Time, second	0, 0.2 - 60.0 (0=continuous)	0.1	$\pm$ (0.1% of setting + 0.05 sec)	0, 0.2 - 60.0 (0=continuous)	0.1	$\pm$ (0.1% of setting + 0.05 sec)
Discharge Time	< 50 msec for no load, < 200 msec for capacitor load			< 50 msec for no load, < 100 msec for capacitor load		
Maximum Capacitive Load DC Mode	1 $\mu$ F < 1KV		0.08 $\mu$ F < 4KV			
	0.75 $\mu$ F < 2KV		0.04 $\mu$ F < 5KV			
	0.5 $\mu$ F < 3KV		0.015 $\mu$ F < 6KV			

# 440 SERIES SPECIFICATIONS

MODEL	SCI 446			SCI 448		
	Range	Resolution	Accuracy	Range	Resolution	Accuracy
<b>INSULATION RESISTANCE</b>						
Output Voltage, VDC	100 - 1000	1	± (2% of setting + 5V)	100 - 1000	1	± (2% of setting + 5V)
Hi-Limit resistance, MΩ	0, 1 - 1000 (0 = OFF)	1	100-499V ± (7% of setting + 2 counts)	0, 1 - 1000 (0 = OFF)	1	100-499V ± (7% of setting + 2 counts)
Lo-Limit resistance, MΩ	1 - 1000	1	500-1000V ± (3% of setting + 2 counts)	1 - 1000	1	500-1000V ± (3% of setting + 2 counts)
Ramp Time , second	0.1 or 2.0	0.1	± (0.1% of setting + 0.05 sec)	0.1 or 2.0	0.1	± (0.1% of setting + 0.05 sec)
Delay Time, second	0, 0.5 - 999.9 (0=continuous)	0.1	± (0.1% of setting + 0.05 sec)	0, 0.5 - 999.9	0.1	± (0.1% of setting + 0.05 sec)
<b>GROUND BOND</b>						
Output AC Current, A	1.0 – 40.0	0.1	± (2 % of setting + 2 counts)	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	0-100	1	± (2 % of setting + 2 counts)	0-100	1	± (2 % of setting + 2 counts)
HI and LO-Limit Resistance, mΩ	0 – 150 (30.1-40.0A)	1	± (2 % of setting + 2 counts)	0 – 150 (30.1-40.0A)	1	± (2 % of setting + 2 counts)
	0 – 200 (10.1-30.0A)			0 – 200 (10.1-30.0A)		
	0 – 600 (1.0-10.0A)			0 – 600 (1.0-10.0A)		
Fix Ramp Timer, second	0.4	0.1	± 0.05 sec	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	0, 0.1 - 240.0 (0 = continuous)	0.1	± 0.05 sec	0, 0.1 - 240.0 (0 = continuous)	0.1	± 0.05 sec
<b>GENERAL SPECIFICATIONS</b>						
Memories	Allows storage of up to 20 different test programs and a single step mode					
Remote I/O	Input: Test, Reset, Interlock & Recall Memory 1 – 6 Output: 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	280mm(W) × 89mm(H) × 400 mm(D)			430mm(W) × 132mm(H) × 400 mm(D)		
Weight	18lbs (8kg)			53lbs (24kg)		