

## Technical Specifications

### DIRECT INPUTS

AC Current: 3 Inputs, 0 to 20A  
1  $\mu$ A Resolution  
AC Voltage: 4 Inputs, 30 to 600V  
1  $\mu$ V Resolution  
Aux. Power: 1 Input, 100 to 530VAC

### PROBE INPUTS

Two sets of three inputs  
Resolution and range determined by probe

### MEASUREMENTS

Energy: Wh, VARh, VAh  
 $\pm 0.04\%$  Accuracy  
Power: Watt, VAR, VA  
 $\pm 0.04\%$  Accuracy  
Power Factor: -1.00 to 1.00  
Harmonics: Up to 100th harmonic (user selectable)

### CURRENT SOURCE

Current Output: 0.1A to 20A (5302)  
Phase Adjustment: 0 to 360 degrees

### SYSTEM CONNECTIVITY

Pulse Inputs: 3(meter pulse input, standard input, aux input)  
Pulse Outputs: 2(standard output, sync output)  
USB to PC Port: 1(connectivity to PC)  
USB Ports: 2(peripheral devices and barcode reader)  
RS232 Port: 1(legacy devices)  
Audio Port: 1(microphone, headphones)

### OTHER

Display Resolution: 640 x 480, full color transfective VGA  
Display Size: 8.4 inches  
Operating Temperature: -20° C to 50° C (-4° F to 122° F)  
Storage Temperature: -30° C to 60° C (-22° F to 140° F)  
Humidity: 0 to 95% non-condensing  
Internal Battery: 14V NiMH rechargeable  
Dimensions: 21 in x 17 in x 8.5 in  
Weight: Not including cables  
5300 29.4lbs (13.3kg) 5302 35.6lbs (16.1kg)  
Warranty: 2 Years

*All information subject to change.*



A Division of  
Technology for Energy Corporation  
10737 Lexington Drive  
Knoxville, TN 37932-3294  
Phone: 865.218.5837  
Toll Free: 877.966.5850  
Fax: 865.675.1241  
www.powermetrix.com



## Model Number Selector

**5300** 3 Phase Reference Standard (0.04%)  
Harmonic Analysis up to 100th  
Wiring Verification  
Customer Load Meter Testing  
Demand Meter Testing  
3 Phase Simultaneous CT Testing  
Meter Site Manager Software

**5302** + 3 Phase 20Amp Current Source

## Contact Information

Martin T. Hiatt, Sales and Marketing Manager  
martin.hiatt@powermetrix.com

Vernon White, Eastern Regional Sales Manager  
vernon.white@powermetrix.com

Scott Bucklew, Western Regional Sales Manager  
scott.bucklew@powermetrix.com

**Customer Service**  
Phone 865.218.5838  
Toll Free 877.966.5851

# 5 Series PowerMaster®

## True Three Phase Analyzing Reference Standard with Internal Three Phase Current Source



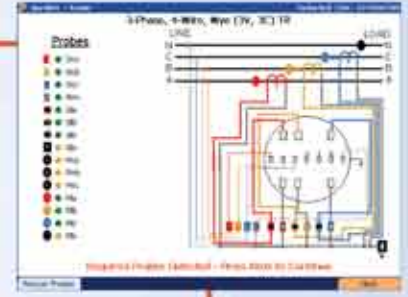
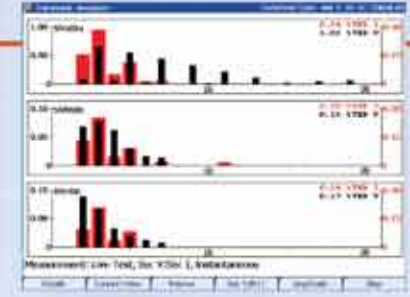
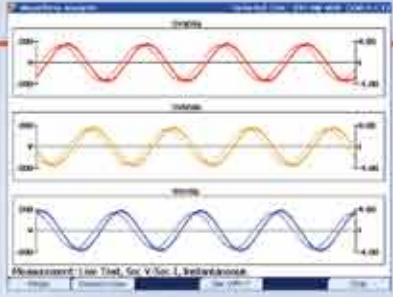
- **Protect Your Revenue**
- **Reduce Testing Time**
- **Built-In Error Detection**
- **Lightweight and Compact**
- **Easy to Use**
- **2 Year Warranty**

Powermetrix is pleased to introduce the most innovative field testing device in the electric utility industry. The PowerMaster® is a top of the line field instrument with a true 3-phase analyzing reference standard with optional integrated current source. With an accuracy of  $\pm 0.04\%$  in the field, the PowerMaster® 5 Series is more accurate than most lab standards, and 5 times more accurate than most meters. With the ability to measure all primary and secondary signals, the PowerMaster® can test all 3 phases for CT burden and ratio errors. It tests meters under customer load and/or generated load conditions. With many advanced features, the PowerMaster® is revolutionizing field testing!

**www.POWERMETRIX.com**  
Creating Better Field Testing Solutions



**Actual  
PowerMaster  
Screens**



### Wiring Verification and Site Diagnostics

**Customer Load Meter Test**  
Wh Test

**% Registration 100.043**

Test Info		Sys Info	
Time(sec)	20.542	Wh	5.3977
Time Left	0.000	VAh	5.3980
Pulses Exp	2.9987	VARh	-0.0536
Meter PF	3.0000	V	118.622
	0.9999	I	2.6614

### Meter Testing

Customer Load  
and  
Generated Load

**FL 100.008**

Phase	Voltage	Current	PF	Time	Pulses
A1	119.24	5.003	1.000	36.21	10

**PF 100.038**

Phase	Voltage	Current	PF	Time	Pulses
A1	119.24	5.001	0.999	72.53	10

**LL 100.017**

Phase	Voltage	Current	PF	Time	Pulses
A1	119.25	0.302	1.000	360.52	10

**Demand Test Results**

Est. Time Remaining in Interval	Est. Total Time Remaining
0:59	0:59

Start Time	End Time	Voltage	Current	PF	Wh	VAh	VARh	Pulses
11:00:00	11:00:00	119.24	5.003	1.000	36.21	118.62	0.00	10



### Completely Database Driven

**Select Site**

Site ID: [input]  
 Service Type: [dropdown]  
 Test Name: [input]  
 Address 1: [input]  
 Address 2: [input]  
 Phone: [input]  
 Meter No: [input]

**Wiring Map**

CT Bus: [input]  
 CT A: [input]  
 CT B: [input]  
 CT C: [input]  
 CT D: [input]

**CT Test Setup**

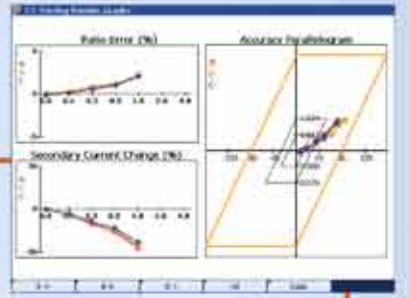
Service Type: [dropdown]  
 CT Mode: [dropdown]  
 Maximum Burden: [input]  
 Transformer Specs for Phase A:  
 Model: [input]  
 Accuracy Class: [input]  
 Rating Factor: [input]

**Test Setup**

Test Type: [dropdown]  
 Test Time: [input]  
 Test Date: [input]

### CT Testing

Customer Load  
and  
Generated Load



**CT Test Setup**

Service Type: 3-Phase, 4-Wire, Wye (Y) 3C 3W  
 CT Mode: [dropdown]  
 Maximum Burden: 0.5

**Transformer Specs for Phase A**

Manufacturer: [input]  
 Model: [input]  
 Accuracy Class: 0.5  
 Rating Factor: [input]

**Measured Ratio: 99.98** **PASS**

Ratio Error (%): -0.02%  
 Phase Error (degrees): 0.000°

**Measured Ratio: 100.08** **PASS**

Ratio Error (%): 0.08%  
 Phase Error (degrees): 0.000°

**Measured Ratio: 99.98** **PASS**

Ratio Error (%): -0.02%  
 Phase Error (degrees): 0.000°

**Other Features**

- 2 USB Ports
- Aux. Power up to 530VAC
- Full Color Transflective Display

**Other Features**

- Demand Testing
- Meter Site Manager Software
- Automatic Calibration Verification