

# PDA 1252

For Portable Power Analysis

Accu-Measure™  
Technology

Watertight Portable

Power Quality Analyzer

- Comprehensive Power Quality Analysis
- Circuit Analyzer Functions
- Load Flow and Historical Trending Capability
- Watertight Outdoor Enclosure
- Advanced Software Analysis Tools Included
- Easy to Use and Operate
- Touch Screen Graphical Display
- Based on the Nexus® 1252 Meter Platform



## Description

The PDA 1252 is a portable power quality analyzer designed to be used with outdoor ready connections. The unit is ideal for load surveys, monitoring transformer banks, indoor and outdoor electrical monitoring and power quality analysis. The PDA 1252 is mounted in its own watertight carrying case and uses watertight connectors to connect voltage and current leads.

## Power Quality Recording Capability

The PDA 1252 is a comprehensive Energy and Power Quality Analyzer. It measures every aspect of power and provides extensive tools for recording trends and power quality events. Recording capabilities include:

- Voltage Surges and Sags
- IEC 61004-15 Flicker Analysis
- Current Fault Signatures
- Harmonics / Interharmonics
- Graphical Waveforms Recorded
- Transient Events on a Cycle by Cycle Basis
- View Data Using Top Rated Communicator EXT Software
- Optional Artificial Intelligence Reporting of Power Quality Causes and Solutions

## Historical Trending / Load Profiling

The analyzer has extensive on-board data-logging for any desired historical analysis. Monitor the following over any desired historical trending window:

- Voltages
- Current Distribution
- PF
- Watt/VAR/WA
- Frequency
- Energy Accumulated
- Log Both Instantaneous and Average Readings
- Programmable Trending Profiles
- Easy to Use and Set Up

# A Quantum Leap in Metering Technology

## Superior Mechanical Design

The unit was designed using a watertight outdoor rated enclosure. All terminations are also watertight. This allows the analyzer to be used in harsh environments or outside the incoming utility feed to a building. The unit can be powered using line voltage or through a separate line cord.

## Two Models

### Low Voltage - PDA 1252-1A

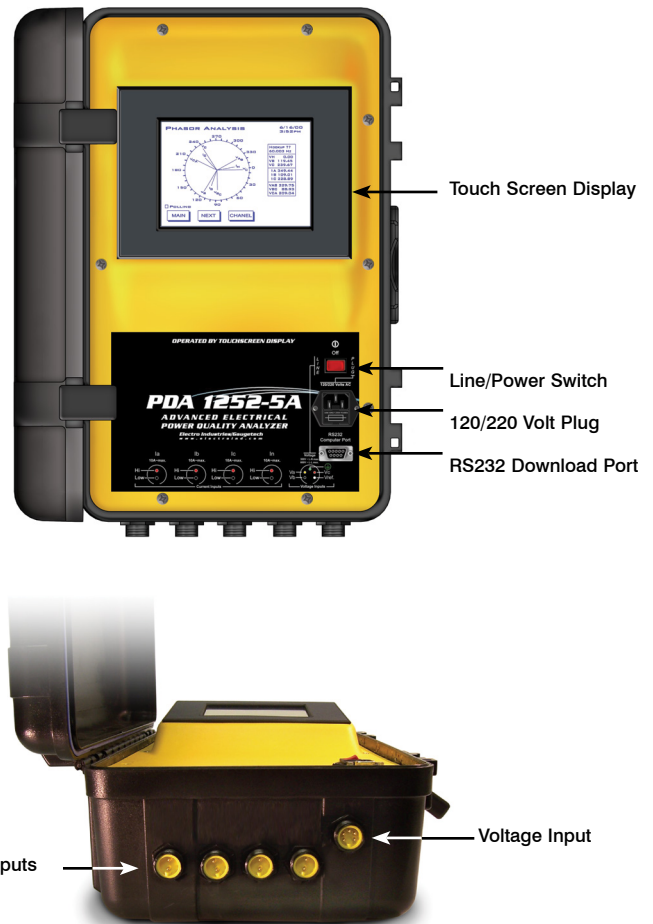
This version of the unit offers a 1 Amp secondary input for low voltage applications. This allows the unit to work with up to 600 Volts phase to phase. There are 3 clamp-on probes available for 100 Amps, 1000 Amps and 3000 Amps primary circuits.

### High Voltage - PDA 1252-5A

This version of the unit takes a direct 5 Amp input for use with test leads on existing high voltage installed current transformers or with 5 Amp rated probes. This allows the unit to be used as a circuit analyzer as well as a portable power quality monitor. When used as a circuit analyzer the PDA 1252 allows you to verify CT and PT connection wiring to meters and protective relaying equipment.

## Power Line or Power Port Power Supply

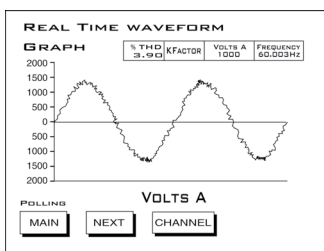
The PDA 1252 is designed to be powered using two different methods. The first method allows the unit to be powered from a 208 - 480 VAC phase A-B voltage line connection. The unit also utilizes a wall plug for remotely powering the unit. The wall plug allows the unit to be used in conjunction with a UPS to remain powered during power outages.



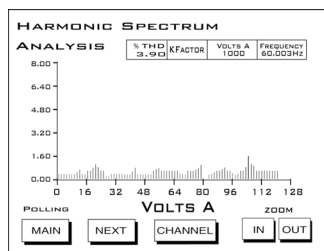
## Advanced Touch Screen Display

Touch screen display allows real-time data to be viewed easily. Stored logs and recordings are viewed via a simple RS232 port.

Waveform Scope



Harmonics

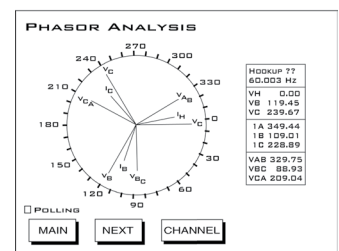


Alarms

ID	ITEM	VALUE	ID	SETTINGS
1	15 Rds volts ON	14.360 %	IN	> 15.120 IN < 13.680
2	THD volts AN	2.94 %	IN	> 15.00 IN < 0.00
3	THD volts BN	1.56 %	IN	> 15.00 IN < 0.00
4	THD volts CN	2.73%	IN	> 15.00 IN < 0.00
5	THD I A	1.96 %	IN	> 15.00 IN < 0.00
6	THD I B	1.17 %	IN	> 15.00 IN < 0.00
7	THD I C	2.73 %	IN	> 15.00 IN < 0.00
8	15 Rds volts ON	5.4408	IN	> 5.7600 IN < 5.7600

Polling 1252unit o120

Phasor Diagram



Time of Use

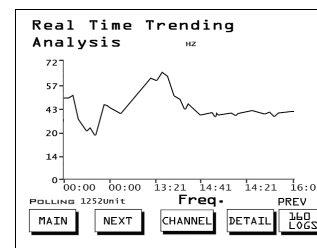
TIME OF USE READINGS REGISTER ACCUMULATIONS	
06/16/00 00:00:00 - 08/04/00 23:59:59	
VAR 0000000000000000	VAR 00000000011816
VA 0000000000000000	VA 00000000096221
DEL WATT Q2 Q1	REC WATT
000000000000000001	000000001170247
VA 0000000000012026	VA 00000000011221713
VAR 0000000000000198	VAR 000000000012217891

REGISTER TOTALS

Real Time Readings

REAL TIME POWER READINGS DETAILS			
06/16/00 00:00:00 - 08/04/00 23:59:59			
	INSTANT	AVERAGE	PREDICTED
WATTS	3606.8	3606.8	3606.8
VARS	-21.0	-21.0	-26.0
VA	3607.0	3607.0	2867.1
PF	-0.999	-0.999	
LEAD		LEAD	

Real Time Trending



Flicker - Instantaneous

Flicker-Instantaneous			
TIME			
Start/Reset	12/29/2004	16:20:63	
Stop	00/00/0000	00:00:00	
Current	05/04/2005	16:03:22	
Next PST	6min	38Sec	
Next FLT	116min	38Sec	

STATUS - Active	PINST	VOLTAGE READINGS
FREQUENCY	60 Hz	volts A 0.046 14.299 kV
Base	60.078 Hz	volts B 0.062 14.302 kV
Current	60.078 Hz	volts C 0.057 14.236 kV
BASE VOLTAGE	120 volts	

Polling 1252unit o120

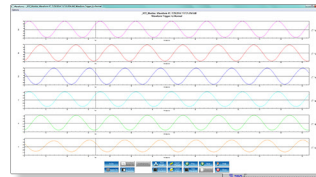
# The Most Advanced Revenue Metering Technology



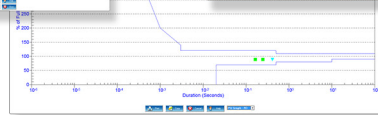
## Advanced Analysis Software

The PDA 1252 comes equipped with the Industry's top performing viewing and power quality reporting package, the Communicator EXT™ software application. This program has the following features:

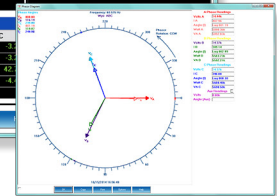
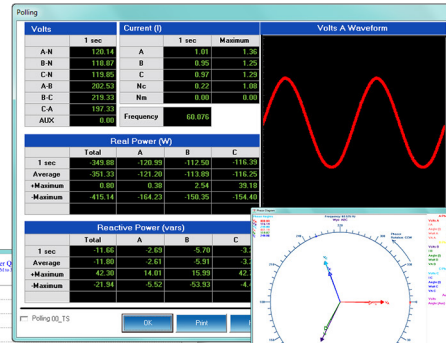
- **Easy Program Configuration**
- **Real Time Data Viewing**
- **Phasor Analysis**
- **Extensive Harmonic Analysis**
- **Waveform Viewer with Zoom and Pan**
- **Historical Trending**
- **Direct Export to the Most Widely-used Third Party Applications**



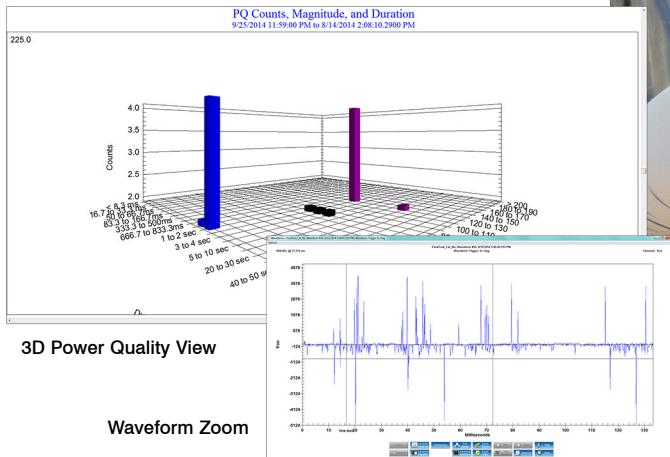
Waveform Viewer



CBEMA/ITIC






Circular Chart Recorder





## Accessory Items

### Optional 1 Amp Model Accessories

- 
**MD304**, 100:1A clamp-on CT with 5ft Male Banana Leads (Range 10-100A, 600V Rating)  
- Includes leads
- 
**SR604**, 1000:1A, clamp-on CT with 5ft Male Banana Leads (Range 100-1000A, 600V Rating)  
- Includes leads
- 
**JM830**, 3000:1A clamp-on CT with 5ft Male Banana Leads (Range 1000-3000A, 600V Rating)  
- Includes leads

### Optional 5 Amp Model Accessories

- 
**KBTP1**, Knife blade test plug with 3ft Male Banana Leads  
- For use with test switches
- 
**SR632**, Clamp-on CT, 1000/5A clamp-on CT with 5ft Male Banana Leads (Range 1000/2.5Amps, 600V Rating)  
- Includes leads

## Specifications

### Voltage Input

0 to 300 Volts L-N (plug powered)  
 0 to 600 Volts L-L (plug powered)  
 100 to 300 Volts AC L-N (line powered)  
 200 to 600 Volts AC L-L (line powered)  
 3 or Single Phase Power Systems

### Power Supply

Line Powered 200 to 600 Volts L-L  
 (Must be powered using two phases of voltage)  
 Wall Plug Powered 120/220 Volts AC

### Current Inputs

1252-5A – 5 Amp Secondary Direct Wiring  
 Max Energy and RMS Calculation Range

(10 Amp Secondary)  
 Max Waveform Recorder Range (40 Amp Secondary)  
 1252-1A – 1 Amp Secondary Direct wiring  
 Max Energy and RMS Calculation Range (2 Amp Secondary)  
 Max Waveform Recorder Range (8 Amp Secondary)

### Burden

Voltage (Line Powered) – 20 VA  
 Voltage (Plug Powered) – 0.05VA  
 Current – 0.05VA

### Frequency

20 to 410Hz

### Operating Temperature

0-50°C

### Accuracy

Voltage and Current: 0.15% of Reading  
 Watts and Energy: 0.2% of Reading  
 Freq: +/- .01 Hz  
 %THD: +/- 1% of Full Scale

### Construction

NEMA 4 Rated Outdoor Enclosure

### Compliance

ANSI C12.20 (Class 0.2 Accuracy)  
 IEC 62053-22 (Class 0.2 Accuracy)  
 IEC 61000-4-15 (Flicker)

## Ordering Specifications

	Model	Current Input	Memory	Frequency
Option Numbers:	-	-	-	-
Example:	<b>PDA 1252</b>	<b>- 1A</b>	<b>- S</b>	<b>- 50</b>
	PDA 1252	-1A 1 Amp	-S Standard Memory	-50 50 Hz System
		-5A 5 Amp	-A Advanced Memory	-60 60 Hz System

## Accessory Options

### Included Accessories

**VLP1252:** Voltage Lead Set  
**ALP1252:** Current Lead Set (QTY 4)  
**COMEXT3.0C:** Communication Software  
**9PINC:** Straight DB9 RS232 Cable  
**RC5589:** 14" x 14" x 3" EIG Nylon Accessory Carrying Case with Shoulder Strap

### Optional 1 Amp Model Accessories

**MD304,** 100:1A clamp-on CT with 5ft Male Banana Leads (Range 10-100A), 600V Rating  
**SR604,** 1000:1A, clamp-on CT with 5ft Male Banana Leads (Range 100-1000A), 600V Rating  
**JM830A,** 3000:1A clamp-on CT with 5ft Male Banana Leads (Range 1000-3000A), 600V Rating

### Optional Software

**COMEXT4P** - Communicator EXT™ Software, Single License

### Optional 5Amp Model Accessories

**EI-7B4618G05,** Knife blade test plug with 3ft Male Banana Leads  
**SR632,** Clamp-on CT, 1000/2.5Amps



**Electro Industries/GaugeTech**  
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1800 Shames Drive • Westbury, NY 11590  
**1-877-EIMETER** (1-877-346-3837) • **Email:** sales@electroind.com  
**Tel:** 516-334-0870 • **Web Site:** www.electroind.com • **Fax:** 516-338-4741