

# 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**
- **Optional Artificial Intelligence Reporting Package**
- **Easy to Use and Operate**
- **Touch-Screen Graphical Display**
- **Based on the Nexus 1252 Platform**

## Description

The PDA1252 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. Recorded 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 additionally 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 - PDA1252-1A

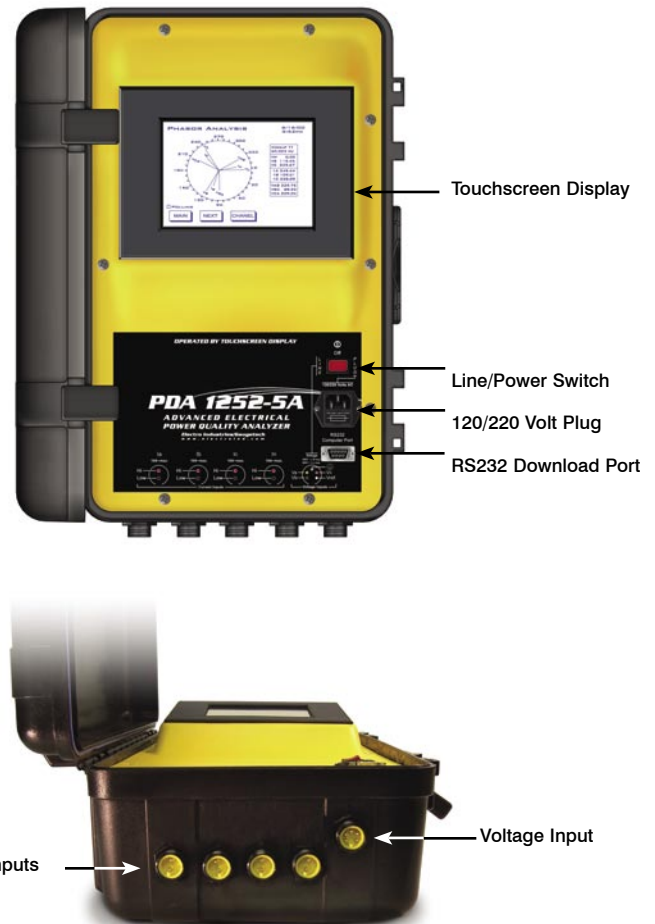
This version of the unit offers a 1 amp secondary input for low voltage applications. This allows the unit to work with up to 600 Volts Phase to Phase. There are 3 clamp on probes available for 100 amps, 1000 amps and 3000 amps primary circuits.

### Hi-Voltage - PDA1252-5A

This version of the unit takes a direct 5 amp input for use with test leads on existing hi-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. In this mode, the unit can be used as a circuit analyzer allowing users to verify CT and PT connection wiring to meters and protective relaying equipment.

## Power Line or Power Port Power Supply

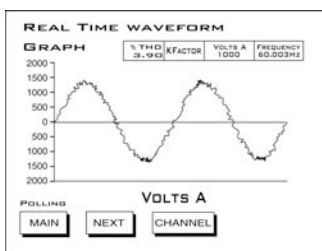
The PDA 1252 is designed to be powered using two different methods. The first method allows the unit to power from a 208 - 480 V AC Phase A-B Voltage line connection. The unit also utilizes a wall plug for remotely powering the unit. The wall plug allows the unit to be used in conjunction with a UPS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



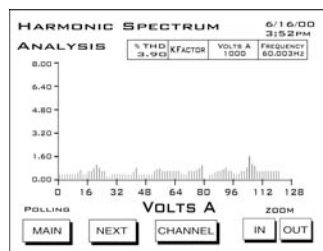
## Advanced Touch Screen Display

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

Waveform Scope



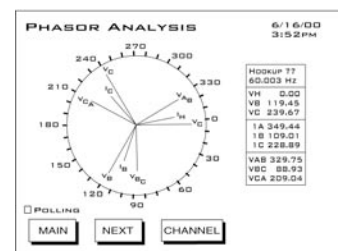
Harmonics



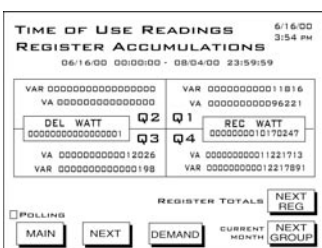
Alarms Mode

ID	ITEM	VALUE	ID	SETTINGS
1	15 Rds volts ON	14.360 %	IN >	15.000
2	THD volts AN	2.94 %	IN <	0.00
3	THD volts BN	1.56 %	IN <	0.00
4	THD volts CN	2.73%	IN >	15.00
5	THD I A	1.96 %	IN <	0.00
6	THD I B	1.17 %	IN >	15.00
7	THD I C	2.77 %	IN <	15.00
8	15 Rds volts ON	5.440%	IN >	5.7600

Phasor Diagram



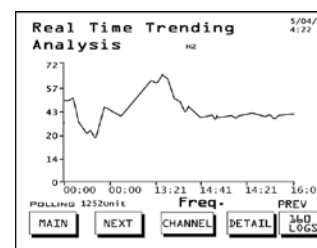
Real Time Trending



Real Time Readings

	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			

Real Time Trending



EN50160 Flicker

TIME	START/RESET	STOP	CURRENT	NEXT PST	NEXT FLT	STATUS	ACTIVE	PINST	VOLTAGE READINGS
	12/29/2004 16:30:63	00/00/0000 00:00:00	05/04/2005 16:03:22	69Hz	38sec				
BASE	60 Hz								volts A 0.046 14.299 kV
CURRENT	60.078 Hz								volts B 0.062 14.302 kV
BASE VOLTAGE									volts C 0.057 14.236 kV

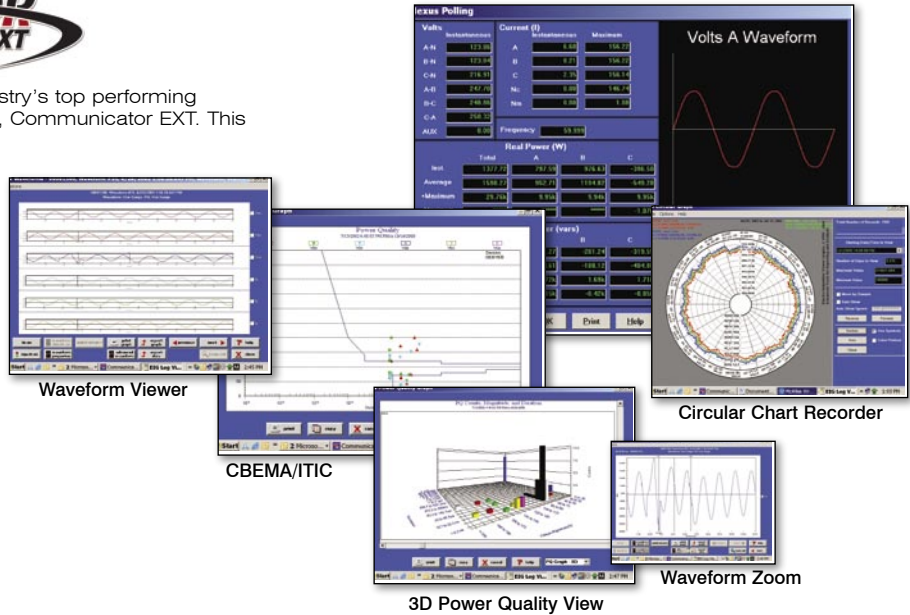
# The Most Advanced Revenue Metering Technology

## COMMUNICATOR EXT

### Advanced Analysis Software

The PDA1252 comes equipped with the Industry's top performing viewing and power quality reporting package, Communicator EXT. This program has the following functions:

- **Easy Program Configuration**
- **Real Time Data Viewing**
- **Phasor Analysis**
- **Extensive Harmonic Analysis**
- **Waveform Viewer with Zoom and Pan**
- **Historical Trending**
- **Direct Export to Microsoft Office Products**



## AiREPORTS EXT

Electro Industries, in conjunction with Kreiss Johnson Technologies, the leader in power quality analysis software, introduces the quantum leap in power quality reporting technology, AiReports EXT.

This unequalled in power quality software package not only provides a comprehensive report on the status of the equipment being monitored, but it also uses artificial intelligence to diagnose PQ events and provide the possible cause of the event. Accuracy is generally as high as 80%. Having this advanced analysis will cut down endless hours of engineering analysis.

*Diagnose Problems Quickly  
with a Detailed Report*



### 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 Volt 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 687 (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

**AIEXT3** - AI Reports - Artificial Intelligence Reporting Package

### Optional 5Amp Model Accessories

**KBTP1,** Knife blade test plug with 3ft Male Banana Leads  
**SR632,** Clamp On CT, 1000/2.5amps



**Electro Industries/GaugeTech**  
 The Leader in Web Accessed Power Monitoring

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