

## Dranetz-BMI - 4300

### 4300: the award-winning hand-held 3-phase power analyzer

Monitoring power disturbances, power flow, and harmonics, the 4300 uses unique task cards that allow you to adapt and update your instrument as new needs and applications arise.

#### 4300 features and highlights

- Portable Handheld Package, weighs less than 4lbs.
- Rugged Rubber Boot
- Eight Channel, 4 Voltage and 4 Current
- Easy Start™ for automated set-ups
- Battery or AC Operation
- Scope Mode®
- Meter Mode
- Time Plot Any Monitored Parameter
- Menu Driven Operation
- Patented TASKCard® Operating System Technology
- Measure Power Quality, Harmonics and Energy with TaskCard PQLite
  - Measure V,I,W, VA,VAR,PF,Demand & Energy
  - Cycle-by-Cycle Disturbance Capture
  - Waveform Capture
  - Simultaneous Channel Capture
  - Classifies Power Quality Disturbances to IEEE 1159 -Recommended Practice for Power Quality Monitoring
- Energy Management with TASKCard 808
- Optional RS-232 Serial Interface
- Integral PC Memory Card Interface Option
- Lockable, Portable Case for outdoor use and harsh environments
- DRANVIEW PC Analysis and Report Writer Software



#### Applications

- Power Quality Troubleshooting
- Harmonic Susceptibility Monitoring
- Energy Management Monitoring
- Single and Three Phase Power Volt-ammeter Price: start below \$5,000

4300: Accessories and options

Monitoring power disturbances, power flow, and harmonics, the 4300 uses unique task cards that allow you to adapt and update your instrument as new needs and applications arise. You can equip your 4300 with a variety of options to tune it to your particular requirements.

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### 4300: detailed specifications for an award-winning hand-held 3-phase power analyzer

Monitoring power disturbances, power flow, and harmonics, the 4300 uses unique task cards that allow you to adapt and update your instrument as new needs and applications arise.

#### Dranetz-BMI 4300 Specifications



### 4300 Specifications

Parameter	Specifications
Voltage measurements	4 fully differential channels 10-600Vrms; user selected 0.5-20Vrms on one channel Accuracy: $\pm 1\%$ reading $\pm 0.05\%$ full scale
Voltage transients	50-1000Vpk; user selected 1-30Vpk on one channel 1 microsecond minimum duration Accuracy: $\pm 10\%$ reading $\pm 1\%$ full scale <b>NOTE:</b> Requires TASKCard PQLite H-T, PQLite H-T-M or H-T-E-M
Current measurements	4 fully independent current channels 10 - 200% of full-scale current probe rating Accuracy: $\pm 1\%$ reading $\pm 0.05\%$ full scale (at fundamental, plus current probe accuracy)
Current transients	10-300% CT full scale except Chan D 2-200% CT full scale 1 microsecond minimum duration Accuracy: $\pm 10\%$ reading $\pm 1\%$ full scale plus probe <b>NOTE:</b> Requires TASKCard PQLite H-T, PQLite H-T-M or H-T-E-M
Frequency	Fundamental range 16 - 450 Hz <b>NOTE:</b> for frequencies outside the 50-60Hz range, please contact the factory before ordering. Accuracy $\pm 0.2\%$ of reading
Update rates	All parameters updated once per second (Harmonic-based parameters updated every 5 seconds)
Environment	41°F to 113°F +5°C to +45°C Humidity 10% - 90% non-condensing
Battery	2 hours operation 3 hours full recharge (continuous operation from battery eliminator)
PC Software package	DRANVIEW
Certifications	
Latest released version	PQLite V3.5 Task808 V1.2

### Dranetz-BMI 4300 - Typical Applications

The 4300 is ideal for industrial sites like refineries and petrochemical plants.



Critical process manufacturing, such as textile plants, use the 4300 to keep their operation running smoothly and profitably.

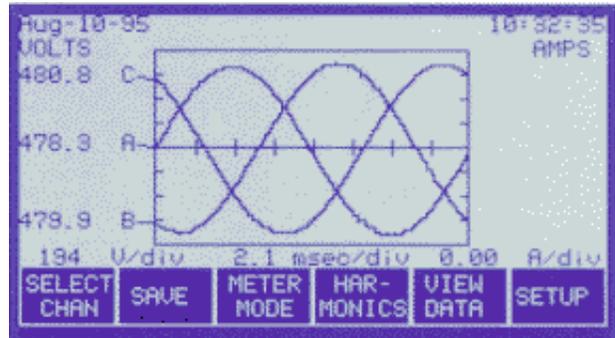
The 4300's ability to switch from harmonics to disturbances to power flow make it a valuable tool for the hospital engineer.



### Scope Mode®

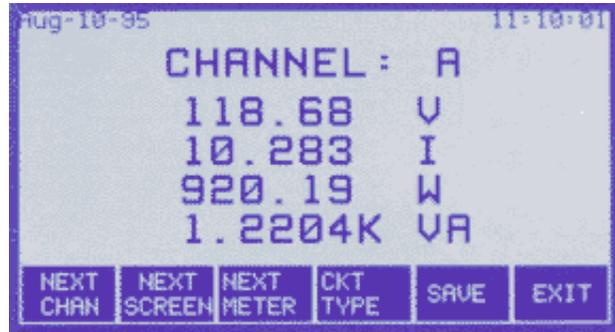
Real-time viewing of

- voltage and current waveforms
- voltage and current phasor diagrams



### Meter Mode

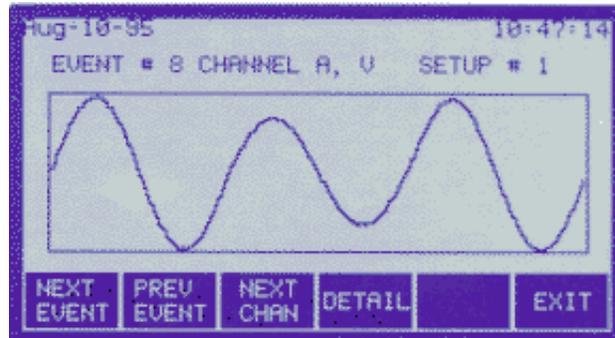
A true handheld three-phase volt-amp-power-harmonic meter lets you view values updated every second: volts, amps, watts, VA, VAR, power factor, frequency, voltage unbalance, V&I Total harmonic distortion, current crest factor, K factor, demand, energy and nth harmonics.



### View data

Recorded data can be viewed easily to quickly show where the problems are

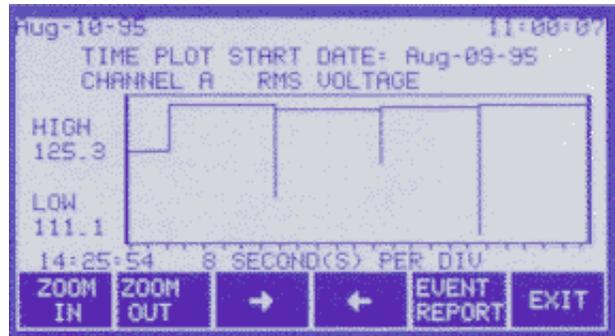
- Event data can be displayed utilizing the built-in event, worst case, or activity reports
- Waveform data displays the actual captured voltage or current waveform
- Power Quality events (sags and swells) are classified to the IEEE 1159 standard for voltage disturbances



### Time Plots

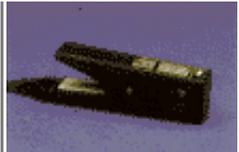
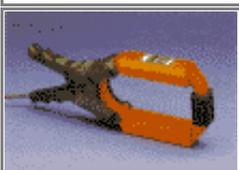
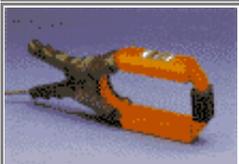
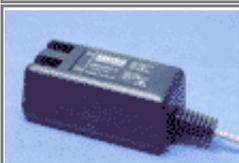
Displays a graph of the selected parameter since recording began

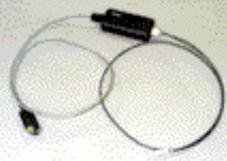
- Record up to 10 days
- Select from up to 16 different parameters
- Select individual channels
- Zoom in for greater detail down to 0.1 sec/div



### 4300 Options and Accessories

Option	Description	Typical application
 TASKCard PQLite	 <p><b>Our most popular 4300 TASKCard!</b>                      TASKCard for power quality, harmonics, energy, and more!                      Five different levels of monitoring capability let you match your budget and requirements.</p>	Power quality surveys, general purpose power monitoring, harmonic analysis; utility power quality programs
 TASKCard 808	 <p>TASKCard for power, demand, energy, harmonics; two levels of monitoring available to match your budget and requirements.</p>	Energy monitoring; before-and-after energy efficiency inspection; harmonics surveys
 Memory card	<p>PCMCIA Memory card provides removable memory expansion to internal memory. Available in 512k, 1Mb, 2Mb, 4Mb</p>	Field use, long-term storage, rapid data transfer to PC
 LPC4300	<p>Lockable Portable Case                      (Click for details.)</p>	<p>Rugged, weatherproof case (NEMA 4x) for <b>harsh environments</b> -                      Includes multi-conductor voltage measurement and AC power cables. Ideal for utility substation measurements, outdoor jobs.</p>
 SCC4300	<p>Soft Carrying Case</p>	<p>Rugged cordura nylon <b>carry case</b> - Holds PP4300, voltage probes, CT's, and manual. Ideal for field service, industrial applications.</p>
 RSC4300	<p>Reusable Shipping Container</p>	<p>Protects the analyzer during repeated <b>shipping</b> - Complies to NSTA Project 1A vibration and drop specification. Includes space for accessories. Ideal for 4300's that are shared between offices or carried in trucks and car trunks.</p>
 TR-2500	<p>Current probe, 10A-500A RMS                      48Hz-3kHz (not for transient capture)                      Max conductor size 1.8" or 2.5"x0.2"</p>	<p><b>Inexpensive</b> power flow (kw, kwh, kvar), current measurements                      Order three for three-phase measurements, or order four to measure neutral current as well.</p>

 TR-2510	Current probe, 0A-10A RMS Max conductor size 0.47"	applications Order three for three-phase measurements, or order four to measure neutral current as well
 TR-2520	Current probe, 100A - 3000A RMS Max conductor size 2.56" or 1.97"x5.3"	<b>Bus bar</b> current measurements Order three for three-phase measurements.
 TR-2021	Current probe, 1A-30A RMS 48Hz-10kHz Max conductor size 0.47"	Low level power flow, current, harmonics measurements Ideal for <b>CT secondaries</b> , low power applications Order three for three-phase measurements, or order four to measure neutral current as well. Requires cable adaptor CA4300
 TR-2019B	Current probe, 10A-300A RMS 45Hz-50kHz Max conductor size 2.0"	<b>Best choice</b> for transient (disturbance) measurements Order three for three-phase measurements, or order four to measure neutral current as well. Requires cable adaptor CA4300
 TR-2022	Current probe, 50A - 1000A RMS 45Hz-10kHz Max conductor size 2.0"	<b>Most popular</b> for power flow, harmonic measurements Order three for three-phase measurements. Requires cable adaptor CA4300
 TR-2023	Current probe, 100A - 3000A RMS 45Hz-5kHz Max conductor size 2.56" or 1.97"x5.3"	<b>Bus bar</b> power flow, harmonic measurements Order three for three-phase measurements. Requires cable adaptor CA4300
 ISO-65X-5	Current input, 0.1A - 10.0A RMS 50Hz-3kHz	Use with existing <b>5 amp secondary current  transformers</b> for power flow, harmonic measurements Order three for three-phase measurements, or order four to measure neutral current as well. Requires cable adaptor CA4300
 LEMFLEX3K	Flexible current probe 1A - 300A, 10A - 3000A 8Hz-7kHz Inside diameter 6"	<b>Bus bar</b> and physically awkward power flow, harmonic measurements Order three for three-phase measurements. Batteries: 2 x 1.5V 'AA' cells, 30 hour life <i>(Requires adapter cable CA4300LEM)</i>
 VCP4300	Voltage Cable Accessory Pack	Voltage <b>measurement cable</b> for direct connection to standard 120VAC single phase outlet. Includes four (4) jumper cables for various three-phase connections.

 <p>PP4300-RS232</p>	<p>RS232 serial interface between PP4300 and PC or printer.</p>	<p>connection. Includes DRAN-LINK 4300 communications utility software.</p>
 <p>PFP-4300</p>	<p>Portable, plain-paper printer</p>	<p>Laser-quality, single-sheet printer with cable for 4300. NiCad rechargeable battery for field use. Full graphics - ideal for field documentation.</p>
 <p>VT4300</p>	<p>Self-paced video training for 4300 operation</p>	<p>Ideal companion accessory for new and experienced users. Includes VHS video, 100-page workbook, sample setups, data.</p>