## **VISION<sup>®</sup>**



## **VISION®** WIRELESS POWER QUALITY RECORDERS

## **FEATURES & BENEFITS:**

The Vision combines PMI's leading-edge power quality recorder technology with a handheld, graphical meter. Use it to view real-time waveforms, make spot measurements, and take measurement snapshots, then leave it in place for full power quality logging.

The Vision measures voltage, current, all power quantities, harmonics, and flicker. Includes a color graphical LCD display, data storage, and high speed USB. The Vision® recorder features:

- True RMS voltage and current measurement
- User-programmable waveform and transient capture
- Real-time graphical display of voltage and current waveforms, power, vectors, harmonics
- Viewing of all real-time data without disturbing or altering an in-progress recording session
- 16,666 samples per 60Hz cycle per voltage channel (VisionPro)
- 4,166 samples per 60Hz cycle per current channel (VisionPro)
- 0-600 Vrms (continuous) measurement, ±5kV peak transient capture
- 20 and 200A current range TLAR clamps; 100, 1000, and 5000A current range FlexCTs
- Up to 1GB memory
- Individual factory calibration and report ensures high accuracy and stability over a wide temperature range.



|                         |                 | <b>VISIONLITE®</b>   | VISION®  | <b>VISION</b> PRO®   |
|-------------------------|-----------------|--|--|--|
| INPUTS                  | AC Voltage      | 0 to 600 RMS continuous<br>per channel                       | 0 to 600 RMS continuous<br>per channel                       | 0 to 600 RMS continuous<br>per channel (±5 kV peak<br>transients)                |
|                         | AC Current      | 0 to 5000 amps   | 0 to 5000 amps   | 0 to 5000 amps   |
|                         | Sample Rate     | 15,360 samples per second/<br>channel; 256 samples per cycle | 15,360 samples per second/<br>channel; 256 samples per cycle | 1 MHz Voltage (16666 samples/<br>cycle), 250 kHz current (4166<br>samples/cycle) |
| CHANNELS                | Voltage         | 3 channels   | 4 channels   | 4 channels   |
|                         | Current         | 3 channels   | 4 channels   | 4 channels   |
| MEASURED                | RMS Voltage     | Volts  | Volts  | Volts  |
| QUANTITIES<br>PER CYCLE | RMS Current     | Amps   | Amps   | Amps   |
| T EIX GTOLL             | Real Power      | Watts  | Watts  | Watts  |
|                         | Apparent Power  | VAs  | VAs  | VAs  |
|                         | Reactive Power  | VARs   | VARs   | VARs   |
|                         | Phase Angle     | Degrees  | Degrees  | Degrees  |
|                         | Power Factor    | Watts/VA   | Watts/VA   | Watts/VA   |
|                         | Displacement PF | cos (phase angle)  | cos (phase angle)  | cos (phase angle)  |
|                         | Power Usage     | kWh, kVARh, kVAh   | kWh, kVARh, kVAh   | kWh, kVARh, kVAh   |
| ACCURACY                | Voltage         | 0.33% of full scale  | 0.33% of full scale  | 0.33% of full scale  |
|                         | Current         | 1.0% of full scale w/o probe                                 | 1.0% of full scale w/o probe                                 | 1.0% of full scale w/o probe   |
|                         | Power           | 1.0% of full scale w/o probe                                 | 1.0% of full scale w/o probe                                 | 1.0% of full scale w/o probe   |
|                         | Phase Angle     | 1.0° w/o probe   | 1.0° w/o probe   | 1.0° w/o probe   |
|                         | Power Factor    | ±0.02 w/o probe  | ±0.02 w/o probe  | ±0.02 w/o probe  |
|                         | Displacement PF | ±0.02 w/o probe  | ±0.02 w/o probe  | ±0.02 w/o probe  |
| SAFETY                  | Rating          | IEC 61010-1, 600V CAT IV                                     | IEC 61010-1, 600V CAT IV                                     | IEC 61010-1, 600V CAT IV   |

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|                        |                    | <b>VISIONLITE®</b>   | <b>VISION</b> ®   | <b>VISION</b> PRO®  |
|------------------------|--------------------|--|---|---|
| HARMONICS              | Voltage            | to the 51st  | to the 51st   | to the 51st   |
|                        | Current            | to the 51st  | to the 51st   | to the 51st   |
|                        | Measures           | magnitude, phase, THD  | magnitude, phase, THD   | magnitude, phase, THD   |
| COMMUNICATIONS         | Type Standard      | USB 2.0  | Bluetooth® 2.0 Class 1<br>Wireless, USB 2.0   | Bluetooth® 2.0 Class 1<br>Wireless, USB 2.0, 10/100MB<br>Ethernet                                       |
| INFORMATION<br>STORAGE | Data Storage       | 1 MB   | 16 MB   | 1 GB  |
|                        | Significant Change | 500 records  | 1000 records  | 1000 records  |
|                        | Flicker            | 500 records  | 1000 records  | 1000 records  |
| RECORD SETTINGS        | Interval Graphs    | 1 second to 4 hour interval.<br>User selected, stop-when-full,<br>or wrap around memory modes. | 1 cycle/second to 4 hour<br>interval. User selected, stop-<br>when-full, or wrap around<br>memory modes | 1 cycle/second to 4 hour<br>interval. User selected, stop-<br>when-full, or wrap around<br>memory modes |
|                        | Significant Change | 1V to 8V in 1V steps   | 1V to 8V in 1V steps  | 1V to 8V in 1V steps  |
|                        | Flicker Settings   | User-defined, or conform to<br>IEEE 1453/IEC 61000-4-15,<br>and IEEE Std. 141                  | User-defined, or conform to IEEE 1453/IEC 61000-4-15, and IEEE Std. 141                                 | User-defined, or conform to<br>IEEE 1453/IEC 61000-4-15, and<br>IEEE Std. 141                           |
|                        | Waveform Capture   | Voltage and current threshold,<br>periodic capture, waveshapes,<br>event cross triggers        | Voltage and current threshold,<br>periodic capture waveshapes,<br>event cross triggers                  | Voltage and current threshold,<br>periodic capture, waveshapes,<br>event cross triggers                 |
|                        | Transient Capture  | N/A  | N/A   | Peak voltage threshold  |
| POWER SUPPLY           | Requirements       | Internal battery, USB charger  | Internal battery, USB charger   | Internal battery, USB charger   |
| ENVIRONMENTAL          |                    | IP51 rating  | IP51 rating   | IP51 rating   |
| PHYSICAL<br>DIMENSIONS | Size               | 7" L X 4.5" W X 1.4" H   | 7" L X 4.5" W X 1.4" H  | 7" L X 4.5" W X 1.4" H  |
|                        | Weight             | 1.2 lbs  | 1.2 lbs   | 1.2 lbs   |
| BATTERY                |                    | 5 hour run-time  | 10 hour run-time  | 10 hour run-time  |

