Z-Brick

The Z-Brick® is a piece of test equipment to quickly check the condition and abilty of a feeder to deliver power under loaded conditions.

The monitor introduces a momentary load that gives the ability to measure the impedance of the incoming lines. This offers a way to quantify the ablity for a feeder to deliver power. It can easly identify problems including undersized feeds or poor connections.

General Specifications:

- Clock: Leap Year, 24-Hour, with time zone info
- Real-time Clock Accuracy: +/- 1 sec / day max
- Internal Memory: Minimum 200 measurements
- Power Requirements: 100V-240V ACrms +/-10% 47-63 Hz 18Watts
- Dimensions: 11.5 x 10.25 x 4 Inches (Height x Width x Depth)
- Weight: 5.9lb

Environmental & Safety

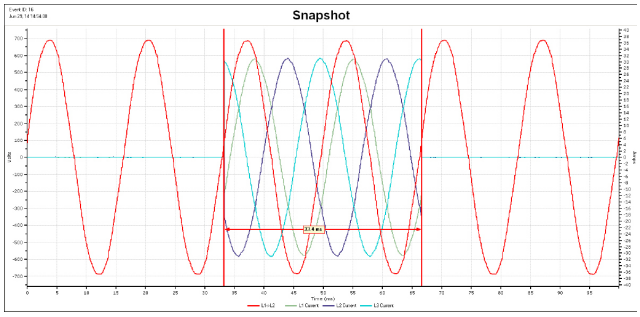
- Operating environment: Indoors
- Storage Temperature: -20ºC to 50ºC (-4F-122F)
- Operating Temperature: 0ºC to 40ºC (32F-104F)
- Max Changes per hour temp: 30ºC
- Operating Humidity: 80% Max Non-Condensing
- Conforms to IEC61010 CAT III 600V

Measurement Details:

- Three phase or single phase measurements.
- Load bank = 40 Ohm delta non-inductive.
- Load estimate:

120v	= 4.5Arms
208v / 3Phase	= 9.1Arms
480v / 3Phase	= 20.8Arms

- Non-linear impedance sources (UPS or regulator) will cause incorrect readings.
- Voltage flicker and high frequency noise can cause inaccurate results, recommended procedure is to take multiple readings.



Synchronization & Sampling:

- Sampling Frequency: 128 samples/cycle
- A/D Resolution: 12 bit oversampled voltage 2X ; current 4X
- Auto 50/60 Hz ; or locked to input

Accuracy:

- Voltage = 0.5% reading +/- 0.3Vrms error
- Current = 0.2% reading +/- 0.1Arms error
- Impedance = 1% reading +/- 0.030mΩ error
- TC = 0.001% / °C