kWHR Recording & 3~ Unbalanced-Load Power Made Handy!

Lower Cost Of Ownership And Better Portability Thru Only One Pair Of Jaws!
Easy Display-Guide On Both 3-Wire and 4-Wire Unbalanced-Load Measurements!

BM157 PowerClamp™ Series

BRYMEN®
BRIGHT PEOPLE'S CHOICE
http://www.brymen.com
See How BM157 Complements His Brothers Perfectly!

<table>
<thead>
<tr>
<th></th>
<th>BM157</th>
<th>BM155</th>
<th>BM152</th>
<th>BM151</th>
</tr>
</thead>
<tbody>
<tr>
<td>157</td>
<td>155</td>
<td>152</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>157</td>
<td>Light Weight &amp; Stylish; 45mm Large jaws opening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>155</td>
<td>1000A AC Clamp-on + Multimeter ranges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>152</td>
<td>600VAC/DC input protection on all functions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>AC True RMS voltage and current functions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balanced-Load 3-phase /1-phase Power W, VA &amp; VAR measurements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Dual display Power Factor (PF) &amp; A-Lags-V Phase-Shift indication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unbalanced-Load 3-phase 3-wire/4-wire Power W (with memory recall)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>kWhr Kilo-Watt-Hour Recording function (with memory recall)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACV or ACA + Dual display Total Harmonic Distortion-Fundamental THD%-%F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>K-Type Temperature -50°C to 300°C (-58°F to 572°F)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Back lighten LCD display</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Automatic selection of DCV, ACV &amp; ACA measurements (Auto V.A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fast PEAK-rms Hold (65ms to 90%) for In-rush ACA &amp; ACV readings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PC-Comm (Optical isolated PC interface capability)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Software kit for Win 95/98/ME/2000/XP (Optional purchase)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data HOLD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5Hz ~ 500Hz line Frequency measurements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DCV &amp; ACV 0.1V to 600.0V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACA 0.01A to 1000A non-invasive current measurements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ohm 0.1Ω to 999.9Ω</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fast Audible Continuity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Battery cover with Probe holders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rugged Fire-retarded casing; Soft carrying pouch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transient protection 6kV 1.2/50μs lightning surge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LVD EN61010-2-032 CAT III 600V</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**GENERAL SPECIFICATION**

- **Display:** Voltage function: 6000 counts LCD display. Power, Cm & Hz functions: 9999 counts LCD display. A/G channel function: 4000 counts LCD display.
- **Update Rate:** Power function: 2 per second nominal. Voltage, A/G clamp-on & Cm function: 2 per second nominal.
- **Accuracy:** Volt meter: ±(0.5% of reading + 2 counts) + 2 bits.
- **Overload Protection:** A/G Clamp-on inputs: AC 1000A rms continuous + & COM terminals (all functions): 600V rms/AC rms.
- **Power Supply:** Standard: 1.5V AAA x 2 (NEDA 270A or IEC LR03) battery x 2.
- **Temperature Coefficient:** ±0.15% x (specified accuracy)/°C @ (PC-18°C or 28°C - 40°C), or otherwise specified.
- **Measurement Category:** III 600V ac & dc.
- **Transistor protection:** ±0.03% (1.25μs range).
- **Pollution Degree:** 2.
- **Performance above 3 V/m is not specified.**

**ELECTRICAL SPECIFICATION**

- **Accuracy:** DC voltage: ±(0.5% of reading + 2 counts) + 2 bits.
- **AC Voltage:** ±(0.15% of reading + 2 counts) + 2 bits.
- **Input Impedance:** AC: >20MΩ @ 1kHz, DC: >20MΩ, resistance ≤ 1kΩ.
- **Crest Factor:** ≤ 2.5:1 at full scale & ≤ 4.6:1 at half scale.
- **AC Voltage Output:** 30VAC (40Hz - 50Hz only) nominal.
- **ACA Current (Clamp-on):**
  - **Range:** 300μA, 300μA, 1000μA, 300mA, 400mA, 1000mA, 3A, 10A, 30A.
  - **Accuracy:** 1.5% + 2d for 0.1% range, 2% + 2d for 0.2% range.
- **ACA ACR/F-THD/F Threshold:** 1A (AC 40Hz - 50Hz only) only nominal.
  - **Specified accuracy:** from 1% to 100% of range, and for measurements made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are:
    - Add 1% to specified accuracy for measurements made within jaw marking lines (away from jaw opening).
    - Add 4% to specified accuracy for measurements made beyond jaw marking lines (toward jaw opening).

- **THD/F:**
  - **Range:** 0.0% - 90.0%.
  - **Accuracy:** 1% + 2d for fundamental, 2% for 40A range, 3% for 30A range.
  - **Unspecified:** @ 10A range.

- **PEAK-rms HOLD (ACA & ACR only):**
  - **Response:** 60ms to 90%.

- **Frequency:**
  - **Range:** 50Hz/60Hz.

**DC Voltage**

- **Range:** 0.005V to 200V.
  - **Accuracy:** ±0.5% + 2d.
  - **Input Impedance:** 2MΩ, 300Ω Nominal.

**Audible Continuity Tester**

- **AudibleThreshold:** 1kHz and 3kHz.
  - **Response time:** 250μs.

**Single-Phase & 3-Phase Balanced-Load Power**

- **Range:**
  - 0-99.99kVA
  - 10A - 1000A
  - 400V - 690V

- **Accuracy (%)**
  - At PF = 0.30: ±0.1, ±0.2, ±0.3, ±0.5
  - At PF = 0.50: ±0.2, ±0.4, ±0.5

**Total Power Factor (PF)**

- **Range:** 0.1 - 0.99
  - **Accuracy:** ±0.05, ±0.1, ±0.2, ±0.3, ±0.5

**Abrage-V Indication:**

- LCD annunciator Arrow-V turns on to indicate an induction circuit, or Current A or Voltage V (i.e., phase-shift angle θ +). Arrow-V Indication is specified at 50Hz fundamental without the presence of harmonics, and at AC > 0V, ACA > 0A. ACA > 0A & PF < 0.8.

**KWH (Kilowatt-Hour Energy)**

- Time base: accuracy ≤ 10ppm.
- Non-volatile memory: Separates stores one 3-Phase Balanced-Load and one Single-Phase result.

**3-Phase Unbalanced-Load Power**

- This 3-Phase Unbalanced-Load measurement is achieved by calculating the discrete single-phase measurements that are taken one at a time manually. Since it is not real-time on all 3 phases simultaneously, it is intended only for stable power conditions without significant power fluctuations over the time of measurement. It uses the separate measurement of the discrete single-phase measurements plus the associated fluctuations.

**BRYKEN TECHNOLOGY CORPORATION**

http://www.bryken.com

Tel.: +886 2 2225 3298 (rep.)
Fax.: +886 2 2225 0025

Copyright © INViNT B.T.C. All rights reserved.
Specifications subject to change without notice.
Patents pending. PRINTED IN TAIWAN