

# 3 $\phi$

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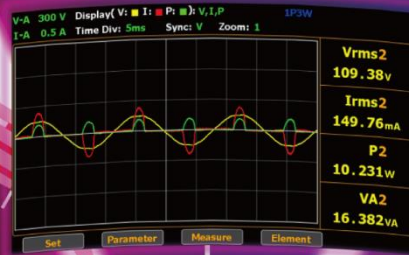
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## GPM-8320-60/8330-60 Digital Power Meter

### FEATURES:

- ※ 5" TFT LCD
- ※ Voltage/Current Test Freq. Bandwidth: DC, 0.1 Hz to 100 kHz
- ※ Direct Input Current up to 60 A
- ※ **Waveform Display**: V (Voltage), I (Current), P (Wattage)
- ※ Distorted wave Current/Voltage measurement: full range for CF=3, and half range for CF=6 (or 6A)
- ※ Meeting IEC 61000-4-7 harmonic measurement (50/60Hz)
- ※ **Wiring selecting button (1P3W, 3P3W, 3P4W, 3V3A)**
- ※ Harmonic measurement & analysis up to 50 orders
- ※ Auto ranging function for Integration mode
- ※ Screen Capture through USB host
- ※ Provide **external current sensor input** (EXT1/EXT2)
- ※ Standard Interface: RS-232C, USB device/ host, LAN
- ※ Optional Interface: GPM-DA12 - GPIB + Digital I/O (factory installed only)

**GW INSTEK**

Simply Reliable

## REAR PANEL



**GPM-8320-60 with opt. GPM-DA12**



**GPM-8330-60 with opt. GPM-DA12**

## SPECIFICATIONS

| Model                    | GPM-8320-60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GPM-8330-60 |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Channel                  | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3           |
| Parameters               | Vrms, Vmn, Vdc, Vac, Irms, Idc, Iac, P, VA, VAR, PF, CFI, CFV, DEG, 1Hz, VHz, V+pk, V-pk, I+pk, I-pk, P+pk, P-pk, THDI, THDV, MATH, MCR, Effi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| Input                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Voltage Range            | 15 V / 30 V / 60 V / 150 V / 300 V / 600 V / 1000 Vrms (CF=3), 7 range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
| Current Range            | 1 A / 2 A / 5 A / 10 A / 20 A / 60 A (CF=3), 6 range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |
| Accuracy                 | DC : $\pm (0.2 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>0.1 Hz to 45 Hz : $\pm (0.1 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>45 Hz to 66 Hz : $\pm (0.1 \% \text{ of reading} + 0.05 \% \text{ of range})$<br>66 Hz to 1 kHz : $\pm (0.1 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>1 kHz to 10 kHz : $\pm ((0.07 \times f) \% \text{ of reading} + 0.3 \% \text{ of range}) \sim \text{Voltage}$<br>$\pm ((0.13 \times f) \% \text{ of reading} + 0.3 \% \text{ of range}) \sim \text{Current}$<br>$\pm ((0.07 \times f) \% \text{ of reading} + 0.3 \% \text{ of range}) \sim \text{EXT1/2}$<br>10 kHz to 100 kHz : $\pm (0.5 \% \text{ of reading} + 0.5 \% \text{ of range}) \pm \{[0.04 \times (f-10)] \% \text{ of reading} \sim \text{Voltage}$<br>$\pm ((0.13 \times f) \% \text{ of reading} + 0.5 \% \text{ of range}) \sim \text{Current}$<br>$\pm (0.5 \% \text{ of reading} + 0.5 \% \text{ of range}) \pm \{[0.04 \times (f-10)] \% \text{ of reading} \sim \text{EXT1/2}$ |             |
| Harmonics Accuracy       | 10 Hz to 45 Hz : 0.15 % of reading + 0.35% of range<br>45 Hz to 440 Hz : 0.15 % of reading + 0.35% of range<br>440 Hz to 1.2 kHz : 0.20 % of reading + 0.35% of range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |
| Voltage Input Resistance | 2M $\Omega$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |
| Power                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Range                    | 15 W to 180 kW (42 ranges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |
| Accuracy                 | DC : $\pm (0.3 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>0.1 Hz to 45 Hz : $\pm (0.3 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>45 Hz to 66 Hz : $\pm (0.1 \% \text{ of reading} + 0.05 \% \text{ of range})$<br>66 Hz to 1 kHz : $\pm (0.2 \% \text{ of reading} + 0.2 \% \text{ of range})$<br>1 kHz to 10 kHz : $\pm (0.3 \% \text{ of reading} + 0.5 \% \text{ of range}) \pm \{[0.13 \times f] \% \text{ of reading}\}$<br>10 kHz to 100 kHz : $\pm (0.5 \% \text{ of reading} + 1.0 \% \text{ of range}) \pm \{[0.13 \times f] \% \text{ of reading}\}$                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| Frequency                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Range                    | DC, 0.1 Hz to 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |
| Accuracy                 | $\pm (0.06 \% \text{ of reading})$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| Frequency Source         | Voltage or Current source selectable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |
| Others                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Display Resolution       | 5 Digits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |
| Display Update Rate      | 0.1 s / 0.25 s / 0.5 s / 1 s / 2 s / 5 s / 10 s / 20 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
| Interface                | Standard: RS-232C/USB host & device/LAN<br>Option: mini GPIB+Digital IO (GPM-DA12)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| Power Source             | AC 100 V to 240 V $\pm 10 \%$ , 50 Hz / 60 Hz (Consumption: 35 VA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| Dimension & Weight       | GPM-8320-60: 220 (W) x 132 (H) x 402.5 (D) mm; Approx. 3.4 kg<br>GPM-8330-60: 220 (W) x 132 (H) x 402.5 (D) mm; Approx. 3.85 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |

Specifications subject to change without notice.

