

**6,000 COUNTS DUAL DISPLAY
TRMS DIGITAL MULTIMETER WITH VFD FEATURE****Model - KM 907****SPECIAL FEATURES :**

- VFD-V & VFD-Hz in Dual Display
- Backlight LCD Display
- 5msCREST-MAX capture mode (Peak Hold)
- Autoranging Relative -Zero mode
- Display Hold
- EF-Detection (NCV)
- AC True RMS Voltage & Current Function
- Beep-Jack input warning
- Hz Line Level Frequency
- Hz Logic Level Frequency
- Diode Test & Continuity Test

GENERAL SPECIFICATIONS

- * **Sensing** : TRMS sensing
- * **Display** : 3-5/6 digits 6000 counts + 3 digits 999 counts dual LCD display
- * **Update Rate** : 5 per second nominal
- * **Polarity** : Automatic
- * **Low Battery** : Below approx 2.4V
- * **Operating Temperature** : 0°C to 40°C
- * **Relative Humidity** : Maximum 80% R. H. For temperature upto 31°C decreasing linearly to 50% Relative Humidity at 40°C
- * **Altitude** : Operating below 2000m
- * **Storage Temperature** : -20°C to 60°C, < 80% R.H. (With battery removed)
- * **Temperature Coefficient** : nominal 0.15 x (specified accuracy) / °C @ (0°C--18°C or 28°C--40°C), or otherwise specified
- * **Power supply** : Standard 1.5V AAA Battery x 2.
- * **Power Consumption** : 5.4mA typical
- * **APO Timing** : Idle for 34 minutes
- * **APO Consumption** : 10µA typical
- * **Dimension** : 186(L) x 87(W) x 35.5(H) mm ;
198(L) x 97(W) x 55.5(H) mm with Holster.
- * **Weight** : Approx. 340 gms; 430gm with holster.

**SAFETY :**

- Double insulation per IEC61010-1 2nd Ed., EN61010-1 2nd Ed., UL61010-1 2nd Ed., & CAN/CSA C22.2 No. 61010.1-0.92 to Category II 1000V, CAT III 600V & CAT IV 300V AC & DC.
- **Transient Protection** : 6kV (1.2/50µs surge)
- **Terminals (to COM) Measurement Category** :
V : CAT II 1000V, CAT III 600V & CAT IV 300V AC & DC.
µA mA : CAT III 500Vac & 300Vdc.
A : CAT III 600Vac & 300Vdc.
- **EMC** : Meets EN61326-1:2006 (EN55022, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11)
In an RF field of 3V/m :
Capacitance function is not specified
Other function ranges : Total Accuracy = Specified Accuracy + 100 dgts
Performance above 3V/m is not specified.
- **Overload Protection** :
µA & mA : 0.63A/500Vac, IR 50kA or better, F Fuse
A : 10A/600Vac, IR 100kA or better, F Fuse
V : 1050 Vrms, 1450 Vpeak

ACCESSORIES : Test lead (pair), Holster, Battery installed, User Manual & Carrying case.**OPTIONAL ACCESSORIES** : Bkp60 banana plug K-type thermocouple, BKB32 banana plug to type-K socket plug adaptor, Current Clamp CA300, Current Clamp Adaptor CA500, CA1000, CA2000, High Voltage Probe PD-28.**All Specifications are subject to change without prior notice**

ELECTRICAL SPECIFICATIONS : KM 907

Accuracy is \pm (%readings digits + number of digits) or otherwise specified, at 23°C \pm 5°C & less than 75% R.H.

True RMS Model AC Voltage & AC current accuracies are specified from 5% to 100% of range or otherwise specified. Maximum Crest

Factor <1.65:1 at full scale & <3.30:1 at half scale, & with frequency components fall within the specified frequency bandwidth for non-sinusoidal waveforms.

DC VOLTAGE

Range	Resolution	Accuracy
60.00 mV	0.01 mV	$\pm(0.6\%rdg + 3dgts)$
600.0 mV	0.1 mV	$\pm(0.3\%rdg + 3dgts)$
6.000 V	0.001 V	$\pm(1.2\%rdg + 3dgts)$
60.00 V	0.01 V	$\pm(0.6\%rdg + 3dgts)$
600.0 V	0.1 V	$\pm(1.0\%rdg + 3dgts)$
1000 V	1 V	$\pm(1.0\%rdg + 3dgts)$

Input Impedance : 10M Ω , 50pF nominal

AC VOLTAGE

Range	Resolution	Accuracy
50Hz ~ 500Hz		
60.00 mV	0.01 mV	$\pm(1.3\%rdg + 5dgts)$
600.0 mV	0.1 mV	$\pm(1.0\%rdg + 5dgts)$
6.000 V	0.001 V	$\pm(2.0\%rdg + 5dgts)$
60.00 V	0.01 V	$\pm(1.3\%rdg + 5dgts)$
600.0 V	0.1 V	$\pm(2.0\%rdg + 5dgts)$
1000 V	1 V	$\pm(2.0\%rdg + 5dgts)$

Input Impedance : 10M Ω , 50pF nominal

RESISTANCE

Range	Resolution	Accuracy
600.0 Ω	0.1 Ω	$\pm(0.8\%rdg + 8dgts)$
6.000 K Ω	0.001 K Ω	$\pm(0.6\%rdg + 4dgts)$
60.00 K Ω	0.01 K Ω	
600.0 K Ω	0.1 K Ω	
6.000 M Ω	0.001 M Ω	$\pm(1.5\%rdg + 5dgts)$
60.00 M Ω	0.01 M Ω	$\pm(2.5\%rdg + 5dgts)$

Open Circuit Voltage : 0.45VDC typical.

DC CURRENT

Range	Resolution	Accuracy	Burden Voltage
600.0 μ A	0.1 μ A	$\pm(1.2\%rdg + 5dgts)$	0.25mV/ μ A
6000 μ A	1 μ A	$\pm(1.0\%rdg + 3dgts)$	0.25mV/ μ A
60.00mA	0.01 mA	$\pm(2.0\%rdg + 5dgts)$	4.0mV/mA
600.0mA	0.1 mA	$\pm(1.5\%rdg + 3dgts)$	4.0mV/mA
6.000A	0.001 A	$\pm(1.5\%rdg + 5dgts)$	0.045V/A
10.00A ¹⁾	0.01 A ¹⁾	$\pm(1.2\%rdg + 3dgts)$	0.045V/A

¹⁾10A continuous, >10A to 20A for 30 seconds max with 5 minutes cool down interval.

AC CURRENT

Range	Resolution	Accuracy ¹⁾	Burden Voltage
50Hz ~ 500Hz			
600.0 μ A	0.1 μ A	$\pm(2.0\%rdg + 6dgts)$	0.25mV/ μ A
6000 μ A	1 μ A	$\pm(1.5\%rdg + 5dgts)$	0.25mV/ μ A
60.00mA	0.01 mA	$\pm(2.5\%rdg + 6dgts)$	4.0mV/mA
600.0mA	0.1 mA	$\pm(2.1\%rdg + 5dgts)$	4.0mV/mA
6.000A	0.001 A	$\pm(2.0\%rdg + 6dgts)$	0.045V/A
10.00A ¹⁾	0.01 A ¹⁾	$\pm(1.8\%rdg + 5dgts)$	0.045V/A

¹⁾10A continuous, >10A to 20A for 30 seconds max with 5 minutes cool down interval.

VFD-VOLTAGE (LPF-ACV)

Range	Resolution	Accuracy ¹⁾
10.0Hz ~ 20.0Hz		
6.000 V	0.001 V	$\pm(3.5\%rdg + 8dgts)$
60.00 V	0.01 V	
600.0 V	0.1 V	
1000 V	1 V	
20.0Hz ~ 200Hz		
6.000 V	0.001 V	$\pm(2.5\%rdg + 8dgts)$
60.00 V	0.01 V	
600.0 V	0.1 V	
1000 V	1 V	
200Hz~400Hz²⁾		
6.000 V	0.001 V	$\pm(7.0\%rdg + 8dgts)$
60.00 V	0.01 V	
600.0 V	0.1 V	
1000 V	1 V	

Input Impedance : 10M Ω , 50pF nominal

¹⁾ Not specified for fundamental frequency > 400Hz

²⁾ Accuracy linearly decreases from 2.5% + 8d @ 200Hz to 7.0% + 8d @ 400Hz

CAPACITANCE

Range	Resolution	Accuracy ¹⁾
60.00nF ²⁾	0.01 nF	$\pm(2.0\%rdg + 5dgts)$
600.0nF	0.1 nF	
6.000 μ F	0.001 μ F	$\pm(3.5\%rdg + 5dgts)$
60.00 μ F	0.01 μ F	
600.0 μ F ³⁾	0.1 μ F	
3000 μ F ³⁾	1 μ F	

¹⁾ Accuracies with film capacitor or better

²⁾ Accuracy unspecified.

³⁾ T. C. : 0.25 x specified accuracy / °C @ 0 ~ 18°C, 28 ~ 40°C

AUDIBLE CONTINUITY TESTER

Audible Threshold	Response Time
between 10 Ω and 120 Ω	< 32ms

Crest-MAX Capture (V & A only)

Accuracy :
Specified accuracy plus 250 digits for change > 5ms in duration

DIODE TESTER

Range	1.000V
Test Current (Typical)	0.2mA
Open Circuit Voltage	<1.8V DC typical

Hz LOGIC LEVEL FREQUENCY

Range	Accuracy
5.000Hz ~ 300.0KHz	0.2% + 4d

1) Accuracy is specified at <20VAC rms
Input Signal : Square wave with duty cycle > 40% & 70%, or Sine wave
Sensitivity :
5Hz~20Hz : > 1Vrms Sine wave;
20Hz~300kHz : > 2.6Vp; or 1.9Vrms Sine wave.

TEMPERATURE

Range	Accuracy
-50°C ~ 1000°C	1% + 3d
-58°F ~ 1832°F	1% + 6d

K type thermocouple range & accuracy not included.

~Hz LINE LEVEL FREQUENCY (DUAL DISPLAY)

AC Function Range	Sensitivity (Sine RMS)	Range
600 mV	0.1 V	10Hz ~ 100kHz
6 V	0.6 V	10Hz ~ 10kHz
60 V	6 V	10Hz ~ 50kHz
600 V	60 V	10Hz ~ 50kHz
1000 V	600 V	45Hz ~ 10kHz
VFD 6 V	0.6V ~ 2.1V ¹⁾	10Hz ~ 400Hz
VFD 60 V	6V ~ 21 V ¹⁾	10Hz ~ 400Hz
VFD 600 V	60V ~ 210V ¹⁾	10Hz ~ 400Hz
600 μ A	60 μ A	10Hz ~ 10kHz
6000 μ A	600 μ A	10Hz ~ 10kHz
60 mA	6 mA	10Hz ~ 10kHz
600 mA	60 mA	10Hz ~ 10kHz
6 A	0.6 A	20Hz ~ 3kHz
9 A	6 A	20Hz ~ 3kHz

Accuracy : 0.2% + 4d

¹⁾VFD sensitivity linearly decreases from 10% F.S. @ 200Hz to 35% F.S. @ 400Hz

NON-CONTACT EF-DETECTION

Typical Voltage	Bar-Graph Indication
20V (tolerance : 10V ~ 36V)	-
55V (tolerance : 23V ~ 83V)	--
110V (tolerance : 59V ~ 165V)	---
220V (tolerance : 124V ~ 330V)	----
440V (tolerance : 250V ~ 1000V)	-----

Indication : Bar-graph segments & audible beep tones proportional to the field strength

Detection Frequency : 50/60Hz

Detection Antenna : Top end of the meter Probe-Contact EF-Detection;
For more precise indication of live wires, such as distinguishing between live and ground connections, use the Red (+) test probe for direct contact measurement.