



# DIGITAL TRMS MULTIMETER WITH HARMONICS INDEX MEASUREMENT

## 11 FUNCTIONS 40 RANGES

### Model KM 629



#### SPECIAL FEATURES :

- Harmonics Index measurement
- T1- T2 Temperature measurement
- 4mA-20mA loop Current Measurement
- Auto-ranging record Max, Min, Max-Min, Avg
- Auto-ranging relative zero mode
- 42 Segments Bar Graph
- Data Hold & Auto power off Function.

#### SAFETY :

- **Safety :** Meets EN61010-1, UL3111-1, CSA C22.2 NO.1010-1, and IEC1010-1 CAT III for 600V DC & AC, and CAT II for 1 kV DC & 750V AC
- **Transient protection:** 6.5kV (1.2/50 s surge)
- **Overload Protections :**  
V : 1000V peak / 780V AC rms;  
A : 15A / 600V HBC F Fuse, IR 100kA;  
A, mA, & T2 : 0.16A/250V F Fuse, IR 1.5kA;  
Others : 600V DC / AC rms

#### ACCESSORIES

Test leads pair, Battery installed, Carrying Case, User's Manual & Holster.

#### OPTIONAL ACCESSORIES

Current Clamp CA 300, Current Clamp Adaptor CA500, CA1000, CA2000, High Voltage Probe PD-28.

#### GENERAL SPECIFICATIONS :

- \* **Sensing :** True RMS Sensing.
- \* **Basic Accuracy:**  $\pm(0.15\%rdg + 3dgt)$ s
- \* **Display:** 4 digits 9999 counts LCD
- \* **Display size:** 13 mm
- \* **Polarity:** Automatic
- \* **Update Rate:**  
Data: 4 per second nominal;  
42 Segments Bar graph: 20 per second max
- \* **Low Battery:** Below approx. 7.2VDC
- \* **Operating Temperature:** 0°C to 35°C, 0-80% R.H.; 35°C to 40°C, 0-70% R.H.
- \* **Storage Temperature:** -20°C to 55°C, 0-80% R.H. (with battery removed)
- \* **Temperature Coefficient :**  
nominal 0.15 x (specified accuracy)/°C @ 0°C -18°C or 28°C - 40°C
- \* **Power Supply:** Single 9V battery
- \* **APO Timing:** Idle for approx. 17 minutes
- \* **APO Consumption :** 30 A Typical
- \* **Power Consumption :** 3.5mA Typical
- \* **Dimension :** 160(L)x82(W)x48(H)mm (with holster)
- \* **Weight :** Approx. 345gm.(with holster)

### ELECTRICAL SPECIFICATIONS : KM 629

Accuracy is  $\pm(\%$  reading digits + No. Of digits) or otherwise specified, at 23°C $\pm$ 5°C less than 75% R.H.

#### DC CURRENT

Range	Resolution	Accuracy
40.00 A	0.01 A	$\pm(0.25\%rdg + 3dgt)$ s
400.0 A	0.1 A	$\pm(0.15\%rdg + 2dgt)$ s
4.000 mA	1 A	$\pm(0.25\%rdg + 3dgt)$ s
40.00 mA	10 A	$\pm(0.05\%rdg + 3dgt)$ s
4.000 A	1 mA	$\pm(0.5\%rdg + 4dgt)$ s
10.00 A*	10 mA	$\pm(0.3\%rdg + 3dgt)$ s

\*10A Continuous ; 20A for 30 Second Max with 5 minutes cool down interval

#### AC CURRENT

Range	Resolution	Accuracy*
<b>50Hz - 500Hz</b>		
400.0 A	0.1 A	$\pm(1.0\%rdg + 3dgt)$ s
40.00 mA	10 A	$\pm(1.0\%rdg + 3dgt)$ s
10.00 A***	10 mA	$\pm(1.0\%rdg + 4dgt)$ s**
<b>500Hz - 2kHz</b>		
400.0 A	0.1 A	$\pm(1.5\%rdg + 3dgt)$ s
40.00 mA	10 A	$\pm(1.5\%rdg + 3dgt)$ s
10.00 A***	10 mA	$\pm(1.5\%rdg + 4dgt)$ s**

\*True RMS Specified from 10% to 100% of range

\*\*True RMS Specified from 25% to 100% of range

\*\*\*10A Continuous; 20A for 30 second Max with 5 minutes cool down interval

#### TEMPERATURE - T<sub>1</sub> & T<sub>2</sub>

Range	Accuracy
-20°C to 300°C	$\pm(3^\circ C + 1d)$
0°F to 572°F	$\pm(6^\circ F + 2d)$
301°C to 500°C	$\pm(2\% + 1d)$
573°F to 932°F	$\pm(2\% + 2d)$

Temperature Coefficient : nominal 0.2 x (specified accuracy)/°C @ 0°C - 18°C or 28°C-40°C

Sensor : "K" Type Thermocouple, sensor accuracy not included

#### AUDIBLE CONTINUITY TESTER

**Audible Threshold :** Between 10 and 200  
**Response time :** < 150 S

#### DC VOLTAGE

Range	Resolution	Accuracy
999.9 mV	100 V	$\pm(0.15\%rdg + 3dgt)$ s
9.999 V	1 mV	
99.99 V	10 mV	$\pm(0.4\%rdg + 5dgt)$ s
999.9 V	100 mV	

NMR : > 50dB @ 50/60Hz

CMRR : >100dB @ DC, 50/60Hz, R<sub>s</sub> = 1K

Input Impedance : 10M

30pF nominal (16M nominal for 999.9mV range)

#### HARMONICS INDEX™ HIX

Range	Input Voltage
0.0% to 99.9%	30mV AC to 750V AC

#### OHMS

Range	Resolution	Accuracy
999.9	100 m	$\pm(0.5\%rdg + 5dgt)$ s
9.999 k	1	$\pm(0.5\%rdg + 2dgt)$ s
99.99 k	10	
999.9 k	100	$\pm(0.8\%rdg + 2dgt)$ s
4.000 M	1 k	
40.00 M	10 k	$\pm(1.5\%rdg + 2dgt)$ s

Open Circuit Voltage :

Typical 1.3VDC (2.7VDC @ 999.9 Range)

#### CAPACITANCE

Range	Resolution	Accuracy
1.000 F	1 nF	$\pm(1.0\%rdg + 4dgt)$ s
10.00 F	10 nF	$\pm(1.0\%rdg + 3dgt)$ s
100.0 F	100 nF	$\pm(1.2\%rdg + 3dgt)$ s
1.000 mF	1 F	$\pm(1.5\%rdg + 4dgt)$ s
10.00 mF	10 F	$\pm(4.0\%rdg + 5dgt)$ s

\* Accuracies with film capacitors, or capacitors that have negligible dielectric absorption

#### AC VOLTAGE

Range	Resolution	Accuracy*
<b>50Hz - 200Hz</b>		
999.9 mV	100 V	$\pm(2.5\%rdg + 8dgt)$ s
9.999 V	1 mV	
<b>50Hz - 500Hz</b>		
9.999 V	1 mV	$\pm(1.1\%rdg + 3dgt)$ s
99.99 V	10 mV	
750.0 V	100 mV	
<b>500Hz - 2kHz</b>		
9.999 V	1 mV	$\pm(1.8\%rdg + 3dgt)$ s**
99.99 V	10 mV	
750.0 V	100 mV	

CMRR : > 60dB @ DC to 60Hz, R<sub>s</sub> = 1k

Input Impedance : 10M

30pF nominal (16M nominal for 999.9mV range)

Trms Crest Factor : < 3:1 at full scale, and

< 6:1 at half scale

\*TRMS specified from 5% to 100% of range

\*\*True RMS Specified from 10% to 100% of range

#### FREQUENCY

Range	Resolution	Accuracy
9.999 Hz	0.001 Hz	$\pm(0.05\%rdg + 4dgt)$ s
99.99 Hz	0.01 Hz	
999.9 Hz	0.1 Hz	
9.999 kHz	1 Hz	
50.00 kHz	10 Hz	

4 selectable trigger levels 1,2,3 & 4 (by Range button)

Input Signal : Sine wave or Square wave with duty cycle > 40% & < 70%

#### DIODE TESTER

Range	Test Current (typical)	Open Circuit Voltage
2.000V	0.5mA	< 3.5 VDC

All Specifications are subject to change without prior notice



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