

### FEATURES

- True RMS measurement
- Audio visual NCV detection
- **Maximum measurable voltage:** 600V
- **High voltage frequency range:** 10Hz~10kHz
- **Current 400A frequency response:** 50Hz~100Hz; current frequency measurement function
- Large capacitance (4mF) and temperature measurement
- Very large capacitance (40mF), low voltage frequency (10MHz), and live/neutral wire measurement functions
- Large LCD and fast refresh rate (3 times/s)
- **Response time for capacitance measurement:** less than 3s for  $\leq 1\text{mF}$ ; about 6s for  $\leq 10\text{mF}$ ; about 8s for  $\leq 40\text{mF}$

### GENERAL SPECIFICATIONS

- **Display:** 3<sup>3</sup>/<sub>4</sub> Digits 4000 Counts LCD Backlight display.
- **The maximum size of jaw opening:** 28mm in diameter
- **Polarity display:** Auto
- **Low battery indication:** The "Lo.b" symbol is displayed.
- **Low battery shutdown prompt:** The "Lo.bt" interface appears on the LCD and lasts for about 10s, the buzzer beeps three times, and the meter automatically shuts down.
- **Operating temperature and humidity:** 0°C~30°C ( $\leq 80\%RH$ ), 30°C~40°C ( $\leq 75\%RH$ ), 40°C~50°C ( $\leq 45\%RH$ )
- **Storage temperature and humidity:** -20°C~60°C ( $\leq 80\%RH$ )
- **Power Supply:** AAA battery 1.5V×2
- **Dimensions:** Approx. 215mm × 63.5mm × 36mm
- **Weight:** Approx. 248g (including batteries)
- **Accessories:** Test lead pair, battery, user manual, K-type temperature probe range upto 250°C & carrying case.
- **Overload display:** "OL" or "-OL"
- **Test position error:** If the source under test is not placed at the center of the clamp jaws when measuring current,  $\pm 1.0\%$  additional error in reading will be produced.
- **Drop protection:** 1m
- **Altitude:** 2000m
- **Auto power off:** If there is no operation of the function switch or any button for 15 minutes, the meter will auto-matically power off. This function can be turned off as needed.
- **Electromagnetic compatibility:** RF=1V/m, overall accuracy = specified accuracy + 5% of range RF>1V/m, no specified calculation

## MODEL- KM 2719

### 11 FUNCTIONS 37 RANGES



Preliminary Data

### ELECTRICAL SPECIFICATIONS : KM 2719

Accuracy is  $\pm$  (% reading digits + number of digits) or otherwise specified @ 23°C $\pm$ 5°C;  $\leq 80\%RH$

#### AC CURRENT

Range	Resolution	Accuracy
4.000A	0.001A	$\pm(4\%rdg+10dgts)$
40.00A	0.01A	$\pm(2\%rdg+10dgts)$
400.0A	0.1A	
Current frequency monitoring: 50Hz~100Hz	0.1Hz	$\pm(1.0\%rdg+5dgts)$

**Overload Protection :** 420A AC

**Frequency response:** 50Hz~100Hz

For 4A range, open circuit allows least significant digit <3.

**Accuracy range:** 1%~100% of range

The input current amplitude of the current frequency should be >2A.

#### AC VOLTAGE

Range	Resolution	Accuracy
4.000 V	0.001 V	$\pm(1.0\%rdg+5dgts)$
40.00 V	0.01 V	$\pm(0.8\%rdg+5dgts)$
400.0 V	0.1 V	
600 V	1 V	
Voltage frequency monitoring: 10Hz~10kHz	0.01Hz~0.01kHz	$\pm(1.0\%rdg+5dgts)$

• **Overload Protection :** 600V rms

• **Input impedance:** About 10M $\Omega$

• **Frequency response:** 45Hz~400Hz, true RMS display

• **Accuracy range:** 1%~100% of range; the input voltage amplitude of the voltage frequency should be >5V.

• The AC crest factor of a non-sinusoidal wave can reach 3.0 at 4000 counts.

The additional error should be added for the corresponding crest factor as follows:

a) Add 3% when crest factor is 1~2

b) Add 5% when crest factor is 2~2.5

c) Add 7% when crest factor is 2.5~3

All Specifications are subject to change without prior notice.

## ELECTRICAL SPECIFICATIONS : KM 2719

### DC VOLTAGE

Range	Resolution	Accuracy
400.0 mV	0.1 mV	$\pm(0.7\%rdg + 3dgts)$
4.000 V	0.001 V	$\pm(0.5\%rdg + 2dgts)$
40.00 V	0.01 V	$\pm(0.7\%rdg + 3dgts)$
400.0 V	0.1 V	
600 V	1 V	

**Overload Protection :** 600V rms

**Input impedance:** About 10M $\Omega$

For mV range, short circuit allows least significant digit  $\leq 5$ .

**Accuracy range:** 1%~100% of range

### RESISTANCE

Range	Resolution	Accuracy
400.0 $\Omega$	0.1 $\Omega$	$\pm(1.0\%rdg+2dgts)$
4.000 k $\Omega$	0.001 k $\Omega$	$\pm(0.8\%rdg+2dgts)$
40.00 k $\Omega$	0.01 k $\Omega$	
400.0 k $\Omega$	0.1 k $\Omega$	
4.000 M $\Omega$	0.001 M $\Omega$	$\pm(2.0\%rdg+5dgts)$
40.00 M $\Omega$	0.01 M $\Omega$	

**Overload Protection :** 600Vrms

### CAPACITANCE

Range	Resolution	Accuracy
4.000 nF	0.001 nF	$\pm(4.0\%rdg+10dgts)$
40.00 nF	0.01 nF	
400.0 nF	0.1 nF	
4.000 $\mu$ F	0.001 $\mu$ F	$\pm(4.0\%rdg+5dgts)$
40.00 $\mu$ F	0.01 $\mu$ F	
400.0 $\mu$ F	0.1 $\mu$ F	
4.000 mF	0.001 mF	$\pm(10\%)$
	0.01 mF	

**Overload Protection :** 600Vrms

- Measured value = displayed value - open circuit value of the test leads (For capacitance  $\leq 100$ nF, it is recommended to use "REL" measurement mode.)
- For capacitance range, open circuit allows least significant digit  $\leq 20$ .

### DIODE TEST

Range	Resolution	Accuracy
4.000V	0.001V	Open circuit voltage: About 3.9V

**Overload Protection :** 600Vrms

Temperature should be within 18°C ~28°C and the fluctuation range should be within  $\pm 1^\circ$ C. When the temperature is  $<18^\circ$ C or  $>28^\circ$ C, add temperature coefficient error 0.1 x (specified accuracy)/ $^\circ$ C.

### FREQUENCY / DUTY CYCLE RATIO

Range	Resolution	Accuracy
10Hz ~ 10MHz	0.01Hz ~ 0.01MHz	$\pm(0.1\%rdg+4dgts)$
0.1% ~ 99.9%	0.1%	$\pm(3.0\%rdg+5dgts)$

**Overload Protection :** 600Vrms

#### 1) Measuring sensitivity:

$\leq 100$ kHz: 200Vrms  $\leq$ input amplitude  $\leq 30$ Vrms

$>100$ kHz~1MHz: 600mVrms  $\leq$ input amplitude  $\leq 30$ Vrms

$>1$ MHz ~ 10MHz : 1Vrms  $\leq$ input amplitude  $\leq 30$ Vrms

#### 2) Duty ratio is only applicable to the measurement of square wave:

$\leq 10$ kHz; amplitude: 1Vp-p

Frequency  $\leq 1$ kHz Duty ratio: 10.0% ~ 95.0%

Frequency  $> 1$ kHz Duty ratio : 30.0% ~ 70.0%

### CONTINUITY TEST

Range	Resolution	Accuracy
400.0 $\Omega$	0.1 $\Omega$	$<10\Omega$ : Consecutive beeps $>31\Omega$ : No beep

**Overload Protection :** 600Vrms

**Open Circuit Voltage :** about 2.0V

### TEMPERATURE: K-Type Thermocouple

Range	Resolution	Accuracy
-40°C ~ 40°C	1°C	$\pm(4^\circ$ C)
40°C ~ 500°C		$\pm(1.5\%rdg+5dgts)$
500°C ~ 1000°C		$\pm(2.0\%rdg+5dgts)$
-40°F ~ 104°F	1°F	$\pm(6^\circ$ F)
104°F ~ 932°F		$\pm(2.0\%rdg+6dgts)$
932°F ~ 1832°F		$\pm(2.5\%rdg+4dgts)$

**Overload Protection :** 600Vrms

### NCV

Range	Electric field sensing sensitivity level	Accuracy
NCV	EFLo	To sense the wire above 24 $\pm 6$ V and identify whether the mains socket is charged
	EFHI	To sense the wire above 74V $\pm 12$ V, to identify whether the mains socket is charged, or to judge the live/neutral wire of the socket according to the intensity of the sensing.

Test results may be affected by different socket designs or wire insulation thickness.

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