

3¾ DIGITS DUAL LCD DISPLAY DIGITAL CLAMP + MULTI METER

12 FUNCTIONS 31 RANGES

Model 2799

**FIRST
TIME
IN INDIA**



**TRANSIENT
PROTECTION
6.5 kV
(1.2/50 s surge)**

SPECIAL FEATURES :

- For HVAC application
- Fully auto ranging on all functions.
- Overload protection on all ranges.
- Data - Hold, Max. Hold function
- Simultaneous A + V, A + A + °C
- Diode test & fast audible continuity
- Auto power off

SAFETY :

- **Safety :** Meets IEC61010-2-032(1994), EN61010-2-032(1995), UL3111-2-032(1999), CAT III 600V AC & DC.
- **Transient protection :** 6.5KV (1.2/50 S surge)
- **Pollution degree :** 2
- **E.M.C. :** Meets EN61326 (1997, 1998/A1), EN61000-4-2(1995), and EN61000-4-3(1996)

In an RF field of 3V/m :

Capacitance function is not specified

A : Total Accuracy =

Specified Accuracy + 65 digits

Other function ranges : Total Accuracy =

Specified Accuracy + 45 digits

Performance above 3V/m is not specified

- **Overload protections :**

ACA Clamp-on jaws : AC 600A RMS continuous
+ / - A & COM terminals : 600V DC / V AC RMS

- **Rugged fire retarding casing with splash proof construction.**

GENERAL SPECIFICATIONS :

- * **Sensing :** Average sensing.
- * **Jaw Opening Size :** 26mm Max.
- * **Display :** 3¾ digits 4000 counts LCD displays
- * **Update Rate :** 3 per second nominal
- * **Polarity :** Automatic
- * **Low Battery :** Below approx. 2.4V
- * **Operating Temperature :** 0°C to 40°C, <80% R.H.
- * **Storage Temperature :** -20°C to 60°C, <80% RH (with battery removed)
- * **Temperature Coefficient :** Nominal 0.15x (specified accuracy)/°C @ (0°C-18°C or 28°C-40°C) or otherwise specified
- * **Altitude :** Operating below 2000m
- * **Power supply :** Standard 3V coin batteries x 2
- * **Power Consumption :** 2.8 mA typical except that 3.3mA typical for ACA function
- * **APO Timing :** Idle for 30 minutes
- * **APO Consumption :** 5 A typical except that 40 A typical on Voltage function
- * **Dimension :** 190(L)mm x 63(W)mm x 32(H)mm
- * **Weight :** 139gm approx.

ACCESSORIES :

Test leads(pair), Batteries installed, User's manual, Carrying Case & Banana plug type-K bead probe Bk60 x 1

OPTIONAL ACCESSORIES :

Banana pins to type-K socket plug adapter Bk32

ELECTRICAL SPECIFICATIONS : 2799

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

AC CURRENT (Clamp-on) (50Hz / 60Hz)

Range	Resolution	Accuracy ⁽¹⁾⁽²⁾⁽³⁾
40.00 A	10 mA	$\pm(1.5\%rdg + 8dgts)$
400.0 A	100 mA	
600 A	1 A	

¹Induced error from adjacent current-carrying conductor : 0.05/A

²Specified accuracy is from 10% to 100% of range & for measurement made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are :

Add 2% to specified accuracy for measurements made BEYOND jaw marking lines (toward jaw opening)

³Add 8dgts to specified accuracy @ reading < 10% of range

AC VOLTAGE (50 Hz-500 Hz)

Range	Resolution	Accuracy
4.000 V	1 mV	$\pm(1.5\%rdg + 5dgts)$
40.00 V	10 mV	
400.0 V	100 mV	
600 V	1 V	$\pm(2.0\%rdg + 5dgts)$

CMRR : >60dB @ DC to 60Hz, Rs=1K

Input Impedance : 10M , 30pF nominal

TEMPERATURE (K-TYPE THERMOCOUPLE)

Range	Accuracy
-20°C ~ 300°C	$\pm(2\%rdg + 3°C)$
301°C ~ 537°C	$\pm(3\%rdg + 3°C)$
-4°F ~ 572°F	$\pm(2\%rdg + 6°F)$
573°F ~ 999°F	$\pm(3\%rdg + 6°F)$

Type-K Thermocouple range & accuracy not included.
Supplied K-type Thermocouple is suitable upto 250°C

DIODE TEST

Open Circuit Voltage	Test Current (Typical)
< 1.6 VDC	0.25 mA

DC VOLTAGE

Range	Resolution	Accuracy
400.0 mV	100 V	$\pm(0.3\%rdg + 4dgts)$
4.000 V	1 mV	$\pm(0.5\%rdg + 3dgts)$
40.00 V	10 mV	
400.0 V	100 mV	
600 V	1 V	$\pm(1.0\%rdg + 4dgts)$

NMR : > 50dB @ 50 / 60Hz

CMRR : > 120dB @ DC, 50 / 60Hz, Rs = 1k

Input Impedance : 10M , 30pF nominal

(1000M for 400.0mV range)

RESISTANCE

Range	Resolution	Accuracy
400.0	100 m	$\pm(0.8\%rdg + 8dgts)$
4.000 k	1	$\pm(0.6\%rdg + 4dgts)$
40.00 k	10	
400.0 k	100	
4.000 M	1 k	$\pm(1.0\%rdg + 4dgts)$
40.00 M	10 k	$\pm(2.0\%rdg + 4dgts)$

Open Circuit Voltage : 0.4V DC typical

CAPACITANCE

Range ¹⁾	Accuracy ²⁾⁽³⁾
500.0nF, 5.000 F,	$\pm(3.5\%rdg + 6dgts)$
50.00 F, 500.0 F,	
3000 F	

¹Additional 50.00nF range accuracy is not specified

²Accuracies with film capacitor or better

³Specified with battery voltage above 2.8V (approximately half full battery).

Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V.

AC A (Via Socket)

Range	Burden Voltage	Accuracy
50Hz - 500Hz		
400.0 A	2.8 mV/ A	$\pm(2.0\%rdg + 5dgts)$
2000 A		$\pm(1.5\%rdg + 5dgts)$

DC A (Via Socket)

Range	Burden Voltage	Accuracy
400.0 A	2.8 mV/ A	$\pm(2.0\%rdg + 4dgts)$
2000 A		$\pm(1.2\%rdg + 3dgts)$

FREQUENCY

Function	Sensitivity (Sine RMS)	Range
400.0 mV	150 mV	10Hz -- 2KHz
4.000 V	3.2 V	5Hz -- 40KHz
40.00 V	25 V	5Hz -- 100KHz
400.0 V	100 V	5Hz -- 100KHz
600 V	400 V	5Hz -- 25KHz
400.0 A	500 A	10Hz -- 30KHz
2000 A	500 A	10Hz -- 30KHz

Display Counts : 5000

Best resolution : 0.001Hz

Accuracy : $\pm(0.5\%rdg + 4dgts)$

Max Hold (where applicable)

Specified accuracy $\pm$ 50 digits for changes > 25ms in duration

All Specifications are subject to change without prior notice