2000 A AC TRUE RMS DIGITAL CLAMP METER WITH NON-CONTACT EF-DETECTION

20 FUNCTIONS 21 RANGES

Model - 2772

SPECIAL FEATURES :

- 2000A AC Clamp-on + Full Multimeter ranges
- AC True RMS Voltage & Current functions
- Autocheck feature (Automatic DCV, ACV & Ohms selection)
- Fully Autoranging on all functions
- Back lighted display & Data Hold function
- Non-Contact & Probe Contact EF-Detection
- Lo-Z Voltage to drain Ghost Voltages (Auto-V position)
- High Voltage frequency with auto-ranging trigger levels
- Overload-Alert ON > 600V AC/DC (Beeps & OL indication)
- Fast Audible Continuity & Diode Test

GENERAL SPECIFICATIONS :

- **Sensing :** True RMS sensing
- **Jaws opening size :** 45mm max.
- **Display :** 3-5/6 digits 6000 counts
- **Update Rate :** 5 per second nominal
- **Polarity :** Automatic
- **Operating Temperature :** 0°C ~ 40°C
- **Relative Humidity :** Max. R.H. 80% for temperature upto 31°C decreasing linearly to 50% R.H. at 40°C
- **Storage Temperature :** -20°C to 60°C, < 80% R.H. (With battery removed)
- **Altitude :** Operating below 2000m
- **Temperature Coefficient :** Nominal 0.15 x (specified accuracy) / °C @ (0°C ~ 18°C or 28°C ~ 40°C) or otherwise specified.
- **Low Battery Indication :** Below approx. 2.4 V
- **Power Supply :** Standard 1.5V AAA battery X 2
- **Power Consumption :** 2.8mA typical
- **APO Consumption :** 230 A typical on Voltage & Current function
- **APO Timing :** Idle for 3 minutes
- **Dimension :** 224(L) x 78(W) x 40(H)mm
- **Weight :** approx. 220gm

SAFETY :

- **Safety :** Meets IEC 61010-2-032(1994), EN61010-2-031(1995), UL3111-2-032 (1999)
- **Measurement Category :** CAT III 600VAC & VDC.
- **Pollution degree** : 2
- **Overload Protection :**
  ACA Clamp-on jaws : AC 2000A rms continuous
  + & COM terminals (all functions) : 600VDC & VAC rms
- **E.M.C. :** Meets EN61326 (1997,1998/A1), EN61000 -4-2 (1995) & EN61000-4-3 (1996)
  In an RF Field of 3V/m :
  Capacitance function is not specified.
  Other function ranges :
  Total accuracy = Specified accuracy+ 45 digits
  Performance above 3V/m is not specified
- **Battery Cover with probe holders**
- **Rugged fire retarded casing**

ACCESSORIES :

Test leads (pair), Batteries installed, Users Manual, Carrying Case

ELECTRICAL SPECIFICATIONS : 2772

Accuracy : ± (% reading + number of digits)

ACA CLAMP-ON CURRENT

Range	Resolution	Accuracy [1) 2) 3)]
50Hz / 60Hz		
400.0 A	100 mA	±(1.5%rdg + 5dgts)
2000 A	1 A	

Crest Factor : < 2 at full scale & < 4 at half scale

[1)] Add 8d to specified accuracy while reading is below 10% of range.

[2)] Induced error from adjacent current-carrying conductor : < 0.06A/A.

[3)] Specified accuracy is for measurement made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are:
Add 1% to specified accuracy for measurementts made WITHIN jaws marking lines (away from jaws opening).
Add 4% to specified accuracy for measurements made BEYOND jaws marking lines (toward jaws opening).

RESISTANCE

Range	Resolution	Accuracy [1)]
6.000 k [2)]	1	±(1.2%rdg + 6dgts)[3)]
60.00 k	10	±(1.0%rdg + 4dgts)
600.0 k	100	
6.000 M	1 k	±(2.0%rdg + 4dgts)

Open Circuit Voltage : 0.4VDC typical

[1)] Cool down interval 2 minutes after over 50V measurements in Auto-V position.

[2)] Beeper ON while reading < 0.025 k

[3)] Add 40d to specified accuracy while reading is below 20% of range.

NON-CONTACT EF-DETECTION

Typical Voltage	Bar Graph Indication
15V to 85V	-
40V to 130V	- -
60V to 210V	- - -
90V to 300V	- - - -
above 120V	- - - - -

Indication : Bar graph segments & audible beep tones proportional to the field strength
Detection Frequency : 50/60Hz
Detection Antenna : Top side of the stationary jaw
Probe-Contact EF-Dection : For more precise indication of live wires, use the Red(+) probe for direct contact measurement

AC VOLTAGE

Range	Resolution	Accuracy
50Hz / 60Hz		
6.000 V	1 mV	±(1.5%rdg + 5dgts)
60.00 V	10 mV	
600.0 V	100 mV	±(2.0%rdg + 5dgts)
50Hz ~ 500Hz		
6.000 V	1 mV	±(2.0%rdg + 5dgts)
60.00 V	10 mV	
600.0 V	100 mV	±(2.5%rdg + 5dgts)

CMRR : > 60dB @ DC to 60 Hz; Rs =1k
Hi-Z ACV Input Impedance : 5 M , 90pF nominal
AutoCheck Lo-Z DCV Input Impedance :
Initially 1.6k , 90pF nominal ;
Impedance increases significantly as display voltage increases from 50V (typical). Typical impedances vs display voltages for reference are:

15k	@ 100V
100k	@ 300V
210k	@ 600V

AutoCheck ACV Threshold : > 2V AC (50 / 60Hz) nominal
Crest Factor : < 1.6:1 at full scale & < 3.3:1 at half scale

CAPACITANCE

Range	Resolution	Accuracy [1)]
100.0 nF [2)]	100 pF	±(3.5%rdg + 5dgts)[3)]
1000 nF	1 nF	
10.00 F	10 nF	
100.0 F	100 nF	
2000 F	1 F	

1) Accuracies with film capacitor or better.
2) Accuracy below 50 nF is not specified
3) Specified with battery voltage above 2.8V approx. (half full battery).
Accuracy decreases gradually to 12% at low battery warning voltage of approx 2.4V

DC VOLTAGE

Range	Resolution	Accuracy
6.000 V	1 mV	±(0.5%rdg + 3dgts)
60.00 V	10 mV	±(1.0%rdg + 5dgts)
600.0 V	100 mV	±(2.0%rdg + 5dgts)

NMRR : > 30 dB @ 50 Hz / 60 Hz
CMRR : > 100 dB @ DC, 50 Hz / 60 Hz; Rs =1k
Hi-Z DCV Input Impedance : 5 M , 90pF nominal
AutoCheck DCV Threshold :
> + 1.5VDC or < -1.0VDC nominal
AutoCheck Lo-Z DCV Input Impedance :
Initially 1.6 k , 90pF nominal ;
Impedance increases significantly as display voltage increases from 50V (typical). Typical impedances vs display voltages for reference are:

15 k	@ 100 V
100 k	@ 300 V
210 k	@ 600 V

FREQUENCY

Voltage Range	Sensitivity (Sine RMS)	Range
6.000 V	4 V	10Hz ~ 30KHz
60.00 V	30 V	10Hz ~ 1KHz
600.0 V	60 V	10Hz ~ 1KHz

Accuracy : ±(0.5%rdg + 4dgts)
Max display : 9999 counts

600 with CONTINUITY BEEPER

Range	Accuracy
600.0 k	±(2.0%rdg + 8dgts)[1)]

Continuity Beeper Response : <100 S
Open Circuit Voltage : 0.4VDC typical
Audible Threshold : between 10 and 300

[1)] Add 40d to specified accuracy while reading is below 20% of range

DIODE TESTER

Open Circuit Voltage	<1.6V DC
Test Current	0.4mA typical

Audible Threshold : between 0.015V and 0.080V

All Specifications are subject to change without prior notice

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