

Data sheet

IDM 207

True RMS Multimeter

FEATURE:

- 40000/4000 count large scale display
- 80 segment analog bargraph
- AC+DC True-RMS
- Fully Autoranging on 12 functions
- On-Screen-Menu operation
- VAC/Hz/Period triple display
- EL backlit
- Full accessories
- Optical RS232 connection
- AC/DC Dual power sources
- Auto calibration
- Virtual instrumentation
- Data acquisition and analysis
- CAT.III 600V/CAT.II 1000V Safety standard

SPECIFICATION:(All at 23°C ±5°C, ≤80% R.H.)

DC/AC Voltage

Range	DC Accuracy
40mV	±(0.06%+8dgt)
400mV	±(0.06%+2dgt)
4V, 40V, 400V, 1000V	

Range	Frequency Response	AC Accuracy
40mV	40Hz~100Hz	±(0.7%+5dgt)
	100Hz~1KHz	±(1%+5dgt)
4V, 40V	40Hz~100Hz	±(0.7%+5dgt)
	100Hz~1KHz	±(1%+5dgt)
	1KHz~10KHz	±(2%+6dgt)
	10KHz~20KHz	±(3%+7dgt)
	20KHz~50KHz	±(5%+8dgt)
	50KHz~100KHz	±(10%+10dgt)
400V	40Hz~100Hz	±(0.7%+5dgt)
	100Hz~1KHz	±(1%+5dgt)
	1KHz~10KHz	±(2%+6dgt)
	10KHz~20KHz	±(3%+7dgt)
	20KHz~50KHz	±(5%+8dgt)
750V	40Hz~100Hz	±(0.7%+5dgt)
	100Hz~1KHz	±(1%+5dgt)
Bandwidth		40Hz~100KHz

Input Impedance: 10MΩ, <100pF

Overload Protection: DC 1000V or AC 750V rms

AC Conversion Type: AC Coupled True-RMS Responding

AC + DC Volts: Same as AC(RMS) + 1.00% + 8dgt

DC/AC Current

Range	DC Accuracy
40mA, 400mA	±(2%+4dgt)
4A, 10A	±(2%+4dgt)

Range	AC Accuracy
40mA, 400mA, 4A, 10A	±(0.8%+8dgt)
Bandwidth	40Hz~400Hz

Resolution: 1 μ A

Overload Protection: 1A/600V fuse for mA input
15A/600V fuse for A input

Burden Voltage: 800mV max for mA input
1V max. for A input

(AC+DC) Current: Same as AC(RMS) + 1.00% + 8dgt

Resistance

Range	OHM Accuracy
400.0 Ω , 4K Ω	±(0.3%+2dgt)
40K Ω , 400.0K Ω	±(0.3%+2dgt)
40M Ω	±(0.3%+4dgt)
40.0M Ω	±(5%+5dgt)

Range	LV OHM Accuracy
4K Ω , 40K Ω , 400.0K Ω	±(0.6%+2dgt)
4M Ω	±(0.6%+2dgt)
40.0M Ω	±(7%+5dgt)

Resolution: 0.01 Ω

Open Circuit Voltage: 3.3V approx.

Overload Protection: 600V rms

Diode

Max Test Current: 1.1mA(Typical)

Open Circuit Voltage: 3.3V DC(max.)

Overload Protection: 600V rms

Continuity

Threshold: 50 Ω approximate

Indicator: 2KHz tone buzzer

Overload Protection: 600V rms

Frequency

Range	Accuracy
400Hz, 4KHz, 40KHz, 400KHz, 4MHz	±(0.01%+1dgt)

Resolution: 0.01Hz in 400Hz Range

Sensitivity: 0.5V rms, for 15Hz~1MHz, 1V rms, for 1MHz~4MHz

Overload Protection: 600V rms

Duty Factor

Range	Accuracy
20%~80%	±6dgt

Resolution: 0.1%

Capacitance

Range	Accuracy
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4nF, 40nF, 400nF, 4 μ F	$\pm(0.9\%+20\text{dgt})$
40 μ F, 400 μ F	$\pm(1.9\%+20\text{dgt})$
4mF, 10mF	$\pm(2.9\%+20\text{dgt})$

Resolution: 1pF

Overload Protection: 600V rms

Temperature

Range	Accuracy
-50°C~1200°C	$\pm(1^\circ\text{C}+1\text{dgt})$
-100°C~-50°C	$\pm(2^\circ\text{C}+1\text{dgt})$
-200°C~-100°C	$\pm(3^\circ\text{C}+1\text{dgt})$

Resolution: 0.1°C

Overload Protection: 600V rms

General

Numeric Update Rate:	2 times/sec(40000 count) 4 times/sec(4000 count)
Overload Indication:	OL is displayed
Auto Power Off:	User selectable(default:30mins)
Operating Temperature:	0°C~30°C ($\leq 80\%$ R.H.), 30°C~40°C ($\leq 75\%$ R.H.), 40°C~50°C ($\leq 45\%$ R.H.)
Storage Temperature:	-20°C~60°C
Temperature Coefficient:	0.1 \times (spec. Acc'y)/°C <18°C, >28°C
Safety:	IEC 61010-1: CAT.III 600V, CAT.II 1000V
Power Requirement:	AC 90 to 264V, 50/60Hz, 10VA min. (User supplied) DC AA or LR6 or AM3 battery 1.5V \times 6
Battery Life:	100 hours w/o backlight(Alkaline)
Size:	230mm(W) \times 233mm(L) \times 96mm(H)
Weight:	1.6Kg
Accessories:	Test Lead, Test Clips, Carrying Strap, Temp. Adaptor, Bead Sensor, Power Cord, RS232 Cable, User Manual and CD Rom