

Specifications

Handy Digital Multimeters VOAC87

Electrical Performance

* Accuracy: $\pm(X\%$ of reading + Y digits) is indicated by X + Y.
The accuracy values below are guaranteed at 23°C \pm 5°C (75%RH or less).

1. DC Volt (DCV)

Range	Resolution	Accuracy*	Input RC
999.9mV	100mV		approx. 16MW, 30pF
9.999V	1mV	0.3+3	
99.99V	10mV		approx. 10MW, 30pF
600.0V	100mV	0.3+5	

NMR: 50dB or more (50/60Hz)

CMR: 100dB or more (DC, 50/60Hz, unbalanced resistance: 1kW)

Max. input voltage: \pm 600VDC/600V ACrms

2. AC Volt (ACV)

Range	Resolution	Accuracy*		Input RC
		50 to 200 Hz	200 to 500 Hz	
999.9mV	100mV	2.5+5 (*)	-	approx. 16MW, 30pF
9.999V	1mV			
99.99V	10mV	1.5+4		approx. 10MW, 30pF
600.0V	100mV			

(*) The accuracy is guaranteed when the input voltage is 1mV ACrms or more.

CMR: 60dB or more (DC to 60Hz, unbalanced resistance: 1kW)

Max. input voltage: \pm 600VDC/600V ACrms

3. DC Current (DCA)

Range	Resolution	Accuracy*	Inter-terminal Voltage Drop
4,000mA	1mA	0.9+4	approx. 0.03V/A
10.00A	100mA	0.7+2	

Input protection: 15A/600V, rated breaking current: 100kA fuse

4. AC Current (ACA)

Range	Resolution	Accuracy*		Inter-terminal Voltage Drop
		50 to 500 Hz		
4,000mA	1mA	2+6		approx. 0.03V/A
10.00A (*)	100mA	1.2+5		

(*) The accuracy is guaranteed when the input voltage is 100mV ACrms or more.

Input protection: 15A/600V, rated breaking current: 100kA fuse

5. Resistance

Range	Resolution	Accuracy*	Terminal Open Voltage
999.9W	100mW	0.5+6	approx. 2.7VDC
9.999kW	1W	0.5+2	
99.99kW	10W		approx. 1.3VDC
999.9kW	100W	0.8+2	
4.000MW	1kW	1.5+2	
40.00MW	10kW		

Max. input voltage: \pm 500VDC/500V ACrms

6. Electrostatic Capacitance

Range	Resolution	Accuracy (*) *	Terminal Open Voltage
-------	------------	----------------	-----------------------

max. input voltage: ±500VDC/500V ACrms

6. Electrostatic Capacitance

Range	Resolution	Accuracy (*) *	Terminal Open Voltage
1.000mF	1nF	1+4	Max. approx. 3.3VDC
10.00mF	10nF	1+3	
100.0mF	100nF		
1.000mF	1mF	2+4	
-	10mF	4+5	

(*) Accuracy for the film condenser or equivalent that has the same or lower current leakage

Max. input voltage: ±500VDC/500V ACrms

7. Frequency

Range	Resolution	Accuracy (*) *	Input Sensitivity
9.999Hz	1mHz	0.1+4	1Vrms, 2Vrms 20Vrms, 200Vrms (Select one of them depending on the range.)
99.99Hz	10mHz		
999.9Hz	100mHz		
9.999kHz	1Hz		
50.00kHz	10Hz		

(*) Accuracy when the input signal is a sine or square wave with a duty ratio of between 40% and 70%.

Max. input voltage: ±600VDC/600V ACrms

8. Temperature

Range	Resolution	Accuracy (*) *
-20°C to +250°C	1°C	±6.5°C

(*) The above accuracy value includes the accuracy of the attached thermocouple probe.

Max. input voltage: ±500VDC/500V ACrms

A K-type thermocouple is used as the temperature probe.

9. Diode Test

Range	Resolution	Accuracy*	Test Current	Terminal Open Voltage
9.999V	1mV	3+3	0.5mA	Max. approx. 3.5VDC

10. Continuity Test

Range	Resolution	Threshold level	Response Time	Terminal Open Voltage
999.9W	100mW	105 ±95W	150ms or less	approx. 2.7VDC

11. Thermocouple Probe (SC-018)

Temperature Measurement Range	-20 to +250°C
Allowable Value	±2.5°C

12. General

Measurement Method	Double integral method	
Digital Display Section	Display	4 digits, count: 9,999
	Polarity	Automatic selection
	Over Display	available (OL, -OL)
	Update Rate	approx. 4 times/sec.
	Display	42 segments
Bar Graph Display Section	Polarity	Automatic selection (+ or - is displayed)
	Over Display	available
	Update Rate	up to 20 times/sec.
Power Supply		DC9V battery (IECL6LR61, JIS6F22, IEC6F22)
	Low Voltage Alert	Display function available (approx. 7.2V)
	Life	approx. 140 hrs. (alkaline battery, DC voltage measurement)

	Low Voltage Alert	Display function available (approx. 7.2V)
	Life	approx. 140 hrs. (alkaline battery, DC voltage measurement)
	Power Consumption	approx. 3.5mA
Auto Power Off		available (Power consumption when power is off: approx. 30mA)
Temperature Coefficient		0.15 x (accuracy at 23°C ±5°C)/°C(0°C to +18°C, +28°C to +40°C)
Operation Temperature and Humidity		0°C to +35°C (80%RH or less), +35°C to +40°C (70%RH or less)
Storage Temperature and Humidity		-20°C to +55°C (80%RH or less). This does not apply to the battery.
Size	Measurement Weight	approx. 75W x 34H x 150L mm approx. 252g
Size (including the holster)	Measurement Weight	approx. 82W x 48H x 160L mm approx. 345g
Compatible Specification	Safety	EN61010-1 (1991), Pollution level 1
	EMC	Overvoltage category III EN55011 (1991) EN55082-1 (1992)
Accessories		Test leads (SC-017) one pair (red and black) Thermocouple probe (SC-018) 1 Holster 1 Battery (attached) 1 This battery is for operation confirmation and may not have the specified life. Operation manual 1