



BENCHTOP DIGITAL MULTIMETER



TM8045

Features

- .4 1/2 digits LCD display with backlight
- .Multi-function of ACV/DCV, ACA/DCA, R, C, Hz, hFE, diode test and continuity beeper test
- .High resolution of 10 μ V, 10 μ A, 10m Ω , 1pF, 0.1Hz
- .0.05% DCV accuracy
- .20 A high current range
- .1000V high voltage range
- .AC or AC + DC true rms
- .Overload protection



TM8045

TM8145

Features

- .4 3/4 digits LCD display with backlight, dual display
- .Multi-function of ACV/DCV, ACA/DCA, R, Hz, Max/Min/Main, REL, Hold, dBm, diode test and continuity beeper test
- .High resolution of 10 μ V, 10 μ A, 10m Ω , 0.01Hz
- .Manual or auto ranging
- .0.03% DCV accuracy
- .1000V high voltage range
- .AC or AC + DC true rms
- .Overload protection



TM8145



Technical Data		TM8045	TM8145
DC voltage	Range	200mV, 2V, 20V, 200V, 1000V	300mV, 3V, 30V, 300V, 1000V
	Accuracy	$\pm(0.05\%rdg+3digits)$ 200mV~200V range $\pm(0.1\%rdg+5digits)$ 1000V range	$\pm(0.03\%rdg+3digits)$
	Input impedance	10M Ω	1000M Ω (300mV, 3V) 10M Ω (other ranges)
AC voltage (AC or AC+DC true rms)	Range	200mV, 2V, 20V, 200V, 750V	300mV, 3V, 30V, 300V, 750V
	Accuracy	200mV range 50Hz ~ 50kHz: $\pm(0.8\%rdg+80digits)$ 2V ~ 20V range 50Hz ~ 20kHz: $\pm(0.8\%rdg+80digits)$ 200V range 50Hz ~ 5kHz: $\pm(0.8\%rdg+80digits)$ 750V range 50Hz ~ 400Hz: $\pm(1.0\%rdg+50digits)$	300mV~300V range 20~50Hz: $\pm(2.0\%rdg+30digits)$ 50Hz~10kHz: $\pm(0.5\%rdg+30digits)$ 10~20kHz: $\pm(1.0\%rdg+50digits)$ 20~30kHz: $\pm(5.0\%rdg+50digits)$ 30~50kHz: $\pm(10.0\%rdg+50digits)$ 750V range 50Hz~10kHz: $\pm(0.5\%rdg+30digits)$
	Input impedance	2M Ω	1M Ω series with 0.1 μ F
DC current	Range	20mA, 200mA, 2A, 20A	300mA, 10A
	Accuracy	$\pm(0.35\%rdg+10digits)$ 20mA, 200mA range $\pm(0.8\%rdg+10digits)$ 2A, 20A range	$\pm(0.1\%rdg+3digits)$ 300mA range $\pm(1.5\%rdg+3digits)$ 10A range
AC current	Range	200mA, 2A, 20A	300mA, 10A
	Accuracy	200mA range 50Hz ~ 5kHz: $\pm(0.8\%rdg+80digits)$ 2A~20A range 50Hz ~ 400Hz: $\pm(1.0\%rdg+50digits)$	300mA range 20~50Hz: $\pm(2.0\%rdg+30digits)$ 50Hz~10kHz: $\pm(0.5\%rdg+30digits)$ 10~20kHz: $\pm(1.0\%rdg+80digits)$ 20~30kHz: $\pm(5.0\%rdg+80digits)$ 10A range 50Hz~2kHz: $\pm(1.5\%rdg+30digits)$ 2~10kHz: $\pm(3\%rdg+30digits)$
Resistance	Range	200 Ω , 2k Ω , 20k Ω , 200k Ω , 2M Ω , 20M Ω	300 Ω , 3k Ω , 30k Ω , 300k Ω , 3M Ω , 30M Ω
	Accuracy	$\pm(0.1\%rdg+20digits)$ 200 Ω range $\pm(0.1\%rdg+5digits)$ 2k Ω ~2M Ω range $\pm(0.4\%rdg+5digits)$ 20M Ω range	$\pm(0.05\%rdg+3digits)$ 300 Ω ~300k Ω range $\pm(0.1\%rdg+3digits)$ 3M Ω range $\pm(0.5\%rdg+3digits)$ 30M Ω range
Capacitance	Range	20nF, 2 μ F, 200 μ F	
	Accuracy	$\pm(3.5\%rdg+20digits)$ 20nF, 2 μ F range $\pm(5.0\%rdg+30digits)$ 200 μ F range	
Frequency	Range	20kHz, 200kHz	300Hz, 3kHz, 30kHz, 300kHz
	Accuracy	$\pm(1.0\%rdg+20digits)$	$\pm(0.05\%rdg+2digits)$
hFE (PNP or NPN)	Display	0 ~ 1000.0	
Diode test	Test condition	Current is approx. 10 μ A, Vce is approx. 3V Check the forward voltage of diode. Maximum forward voltage 2V, open voltage 2.8V	
Continuity beeper		<5 Ω	
NMRR		>60dB	
CMRR		>120dB	
Power source		110 ~ 127VAC \pm 10%/220 ~ 240VAC \pm 10%, 50Hz \pm 2Hz/60Hz \pm 2Hz	
Dimensions	W x H x D	260mm \times 220mm \times 82mm	
Weight		Approx. 1kg	

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