

TES A9+ EV Clamp Meter

FEATURES

- ❑ Min. resolution AC/DC 1mA and max. current range of AC/DC 1000A
- ❑ Best accuracy $\pm 1.5\% \pm 3$ dgts for all ranges
- ❑ In-Rush Current Measurement with 100mS integration time
- ❑ Non-Contact Frequency Measurement (min. sensitivity 0.08 ACA)
- ❑ Low Pass Filter (LPF) at 1 KHz Cut-off Frequency

Electrical Specifications:

DC Current

Range	Resolution	Accuracy	Overload Protection
4A	1mA	$\pm 1.5\% \pm 3$ dgts	DC 1000A
40A	10mA		
400A	100mA		
0-900A (1000A)	1A		
900-1000A (1000A)	1A	$\pm 2.0\% \pm 3$ dgts	

AC Current (True RMS, Crest Factor ≤ 3)

Range	Resolution	Accuracy ¹		Overload Protection
		50/60 Hz	40 - 400Hz	
4A	1mA	$\pm 1.5\% \pm 3$ dgts	$\pm 2.0\% \pm 4$ dgts	AC 1000A
40A	10mA			
400A	100mA			
0-900A (1000A)	1A	$\pm 2.0\% \pm 3$ dgts	$\pm 2.5\% \pm 4$ dgts	
900-1000A (1000A)	1A			

¹Add 2% when C.F. ≥ 2

Frequency Via Clamp Jaw (auto range, periodic and zero crossing signal)

Range	Range (Hz)	Resolution (Hz)	Sensitivity (A)	Accuracy
4A	1 - 10	0.1	0.2	$\pm 0.5\% \pm 2$ dgts
4A	10 - 4K	0.1/1	0.08	
4A	4K - 40K	1/10	0.20	
40A	1 - 10	0.1	1.5	
40A	10 - 4K	0.1/1	0.8	
400A	2 - 4K	0.1/1	4	
1000A	1 - 4K	0.1/1	40	

Overload protection all range AC 1000A


In-Rush Current (AC, starting from 0A, Integration Time 100mS)

Range	Trigger Current (threshold)
4A	0.2A
40A	2A
400A	20A
1000A	200A

AC Low Pass Filter (LPF, Cut-off frequency (-3db) 1 KHz (approx.))

Range	Resolution (A)	Accuracy (50/60Hz)
4A	0.001	$3\% \pm 5$ dgts
40A	0.01	
400A	0.1	
0 - 900A (1000A)	1	
900-1000A (1000A)	1	$4\% \pm 5$ dgts

General Specifications: Indoor Use

Conductor Size	0.98" / 25mm max. (approx.)
Battery Type	Two 1.5V LR03 AAA size
Display	3 3/4 LCD with 20 segments Bar-graph
Range Selection	Manual
Overload Indication	OL
Power Consumption	22mA with backlight off (approx.)
Low battery Indication	
Sampling Time	3 times/sec. (digits), 30 times/sec. (bargraph)
Operating Temperature	-10°C to 50°C
Operating Humidity	less than 85% relative
Storage Temperature:	-20°C to 60°C
Storage Humidity:	less than 75% relative
Altitude	up to 2000M
Dimension	152mm (L) x 66mm (W) x 36mm (H)
	6.0" (L) x 2.6" (W) x 1.4" (H)
Weight	190g (battery included)
Accessories:	Carrying bag x 1, Users manual x 1, 1.5V AAA battery x 2

TES A9+ EV Clamp Meter

- ❑ Just Clamp-on EV wire for trouble-shooting
- ❑ The New Generation Clamp Meter. Designed for EV (Electric Vehicle)
Both lower DC Current (1mA) and High DC Current (1000A)



Multiple Current Sensors Patents

Taiwan	M582592
Japan	3223244
China	CN209728026U
Germany	20 2019 106 212
USA	10,788,519
France	FR3092400

1mA DC
Central LCD Panel

1mA DC
Dim Light

DC 100A ~ 800A
AC 45A
Power-charge
Monitoring



10A DC
Head Light

100A DC
Wheel Motor

1mA~A DC
Window Mini motor

10A DC
Tail light