PROVA 2021 AC/DC HVAC TRMS Clamp Meter

CE
IEC 61010

CAT III 600V

Multiple Current Sensors Patents

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

Features:

- **AC/DC current** measurement: 40.00A/ 400.0A/ 2000A.
- **True RMS** measurement of AC current and voltage.
- **Auto and full ranges:** V, A, Resistance, Continuity, Diode, Capacitance, Micro Current and Temperature. With AI intelligence, the attributes and ranges of Resistance, Continuity, Diode, Capacitance can be automatically determined.
- One Touch Zero for DCA adjustment.
- **55mm** large jaw diameter.

- **Low Pass Filter (LPF)** at 1 KHz (-3dB) Cut-off Frequency
- Fast bar graph display (30 times/sec.) for transient observation.
- Large 3 3/4 digits LCD.
- **In-Rush (INR) Current** Measurement with 100mS integration time.
- **AC/DC voltage** accuracy: ±0.5%±2dgts (4/40/400/1000V)
- **AC/DC uA current** accuracy: ±0.5%±2dgts (400.0uA/4000uA)
- **Resistance** accuracy: ±0.8%±2dgts (40/400/4K/40K/400K/4000K/40MΩ)
- **Capacitance** accuracy: ±0.8%±3dgts (4n/40n/400n/4u/40u/400u/4m/40mF)
- **Temperature** measurement: either ℃ or ℉ fixed at factory (once chosen it can not be changed afterwards)
- Temperature ℃ (fixed at the factory) best accuracy: ±0.5%±0.5℃(-200.0 ~ 1300℃)
- Temperature ℉ (fixed at the factory) best accuracy: ±0.5%±0.9℉(-328.0 ~ 2372℉)
- Auto-power-off function (15 minutes).
- **Continuity** test and **Diode** Measurement.
- Maximum, minimum and hold functions.
- 600V overload protection for ohm / capacitance measurement.
- **Backlight**

Electrical Specifications: (23℃±5℃, Accuracy is % of reading ± digits)

40A DC

(Manual-range, conductor is placed at the center of jaws, zero reading before measurement)

Range (A)	Resolution	Accuracy	Overload Protection
0.00 - 40.00A	10mA	±1.5%±3dgts	DC 3000A

40A AC (Manual-range, true RMS, Crest Factor≦3, conductor is placed at the center of jaws)

Range (A)	Resolution	Accuracy (50/60Hz)	Accuracy	Overload Protection
0.00 - 40.00A	100mA	±1.5%±5dgts	±2.5%±5dgts (40-1KHz)	AC3000A

DC Current

(auto-range, conductor is placed at the center of jaws, zero reading before measurement)

Range (A)	Resolution	Accuracy	Overload Protection
0.0 - 400.0A	100mA	±1.5%±3dgts	DC 3000A
400 - 2000A	1A		

AC Current

(auto-range, true RMS, Crest Factor≦3, conductor is placed at the center of jaws)

Range (A)	Resolution	Accuracy (50/60Hz)	Accuracy	Overload Protection
0.0 - 400.0A	100mA	±1.5%±5dgts	±2.5%±5dgts (40-1KHz)	AC3000A
400 - 2000A	1A	±2.0%±5dgts	±2.5%±5dgts (40-400Hz)	

DC uA (auto-range)

Range (uA)	Resolution	Accuracy	Overload Protection
0.0 - 400.0	0.1uA	±0.5%±2dgts	DC 50mA
400 - 4000	1uA		

[1] The input of DC uA terminal is protected by a 50mA resettable fuse.

[2] The inputs of the DC uA measurement are via uA and COM terminals.

AC uA (auto-range)

Range (uA)	Resolution	Accuracy	Overload Protection
0.0 - 400.0	0.1uA	±0.5%±2dgts	DC 50mA
400 - 4000	1uA		

[1] The input of AC uA terminal is protected by a 50mA resettable fuse.

[2] The inputs of the AC uA measurement are via uA and COM terminals.

Voltage Frequency (auto range, periodic and zero crossing signal)

Range	Range (Hz)	Resolution	Sensitivity	Accuracy
1000V	0.0 – 400.0	0.1Hz	0.8V	±0.5%±2dgts
	0.400K – 4.000K	1Hz		
	4.00K – 40.00K	10Hz		

Current Frequency (auto range, periodic and zero crossing signal)

Range	Range (Hz)	Resolution)	Sensitivity	Accuracy
400 - 2000A	0.0Hz–400.0Hz	0.1Hz	6A	±0.5%±2dgts
	0.400KHz – 4.000KHz	1Hz		
	4.00KHz – 30.00K/10KHz[1]	10Hz		

[1] When the current is >400A and <2000A, only 10.00KHz can be measured.

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

Range	Min. triggerable current (Threshold)
400A	20.0A
2000A	200A

DC Voltage (auto-range, Input Impedance 10MΩ)

Range (V)	Resolution	Accuracy	Overload Protection
0.000 - 4.000	0.001V	±0.5%±2dgts	DC 1000V
4.00 - 40.00	0.01V		
40.0 - 400.0	0.1V		
400 - 1000	1V		

AC Voltage (auto-range, true RMS, Crest Factor≦3, Input Impedance 10 MΩ)

Range (V)	Resolution	Accuracy (50/60Hz)	Accuracy (40 -1KHz)	Overload Protection
0.000 - 4.000	0.001V	±0.5%±2dgts	±0.8%±3dgts	AC 1000V
4.00 - 40.00	0.01V			
40.0 - 400.0	0.1V			
400 - 1000	1V			

Resistance (Ω) (auto-range, open voltage 0.5V)

Range (Ω)	Resolution (Ω)	Accuracy	Overload Protection
0.00 - 40.00[1]	0.01	±0.8%±2dgts	AC 600V
40.0 - 400.0	0.1		
400 - 4000	1		
4.00K - 40.00K	0.01K		
40.0K - 400.0K	0.1K		
400K - 4000K	1K		
4.00M - 40.00M	0.01M		

[1] When the resistance to be tested is < 20Ω at 40.00Ω range, to obtain listed accuracy, users must short the test leads and zero the value before measurement. However, when the ▲ ZERO button is pressed, the meter will be locked at 40.00Ω range, and the resistance value greater than 40Ω will be displayed as **OL**.

Continuity (Ω)

Range (Ω)	Resolution (Ω)	Accuracy	Beeping
0.0 - 400.0	0.1	±0.8%±2dgts	< 30Ω

Diode

Range (V)	Resolution (V)	Accuracy	Overload Protection
0 - 0.330V	0.001V	±100dgts	AC 600V
0.330 - 2.000V		±2%±5dgts	

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

Range	Resolution	Accuracy (of reading, 50/60Hz)
0 – 400.0A	0.1A	3%±5dgts
400 - 1000A	1A	3.5%±5dgts
1000 - 2000A	1A	4%±5dgts

Capacitance **(**auto-range, thin film capacitor or better is used**)**

Range (F)	Resolution (F)	Accuracy	Overload Protection
0.000n - 4.000n [1]	0.001n	±1.5%±3dgts	AC 600V
4.00n - 40.00n	0.01n	±0.8%±3dgts	
40.0n - 400.0n	0.1n		
0.400u - 4.000u	0.001u		
4.00u - 40.00u	0.01u		
40.0u - 400.0u	0.1u		
0.400m - 4.000m	0.001m		
4.00m - 40.00m [2]	0.01m		

[1] At 4nF range, to obtain the listed accuracy it is necessary to ZERO first (by pressing ZERO button once or several times until the reading becomes zero) to eliminate the capacitance effect produced by the wire of the test leads.

[2] Maximum measuring time of 40mF would take around 13 seconds. The smaller the capacitance value, the shorter the time.

Temperature[1, 2] (auto-range, accuracy is % of reading ± ℃ or ℉, K-Type thermocouples, ℃ or ℉ is fixed at the factory)

Range (℃)	Resolution (℃)	Accuracy	Overload Protection
-200.0 to -100.0	0.1	±1.5%±0.2℃	AC 600V
-100.0 to 400.0	0.1	±0.5%±0.5℃	
400 to 1000	1	±0.5%±2℃	
1000 to 1300	1	±0.8%±2℃	
Range (℉)	**Resolution (℉)**	**Accuracy**	**Overload Protection**
-328.0 to -148.0	0.1	±1.5%±0.4℉	AC 600V
-148.0 to 999.9	0.1	±0.5%±0.9℉	
1000 to 1832	1	±0.5%±4℉	
1832 to 2372	1	±0.8%±4℉	

[1] The tolerance of K type thermocouple wire itself is not included in the listed accuracy.

[2] Assume the clamp meter interior and the ambient temperature have reached equilibrium state (Both temperatures are the same).

Auto-power-off : 15 minutes (LCD displays a ◷ symbol)

General Specifications: Indoor Use

Conductor Size: 2.17” / 55mm (approx.)

Battery Type: 9V Battery

Display: 3 3/4 LCD with 40 seg. bargraph

Range Selection: Auto and Manual

Overload Indication: OL

Power Consumption: without backlight 17mA (Approx.)

Low battery Indication: Battery symbol flashes

Sampling Time: 3 times/sec. (display)
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: 271mm (L) x 112mm (W) x 46mm (H)
10.7" (L) x 4.4" (W) x 1.8" (H)

Weight: 675g (battery included)

Accessories: Test leads x 1 set
Carrying bag x 1
Users manual x 1
9V Battery x 1
K-type thermocouples x 1
Adapter (for K-type thermocouples) x 1

PROVA INSTRUMENTS INC.

Add: 6F-2, No. 129, Lane 235, Pao-Chiao Road, Shin-Tien District,
New Taipei City 23145, TAIWAN

Tel: 886-2-89191255 **Fax:** 886-2-89191489

E-mail: prova@ms3.hinet.net **Website:** www.prova.com.tw