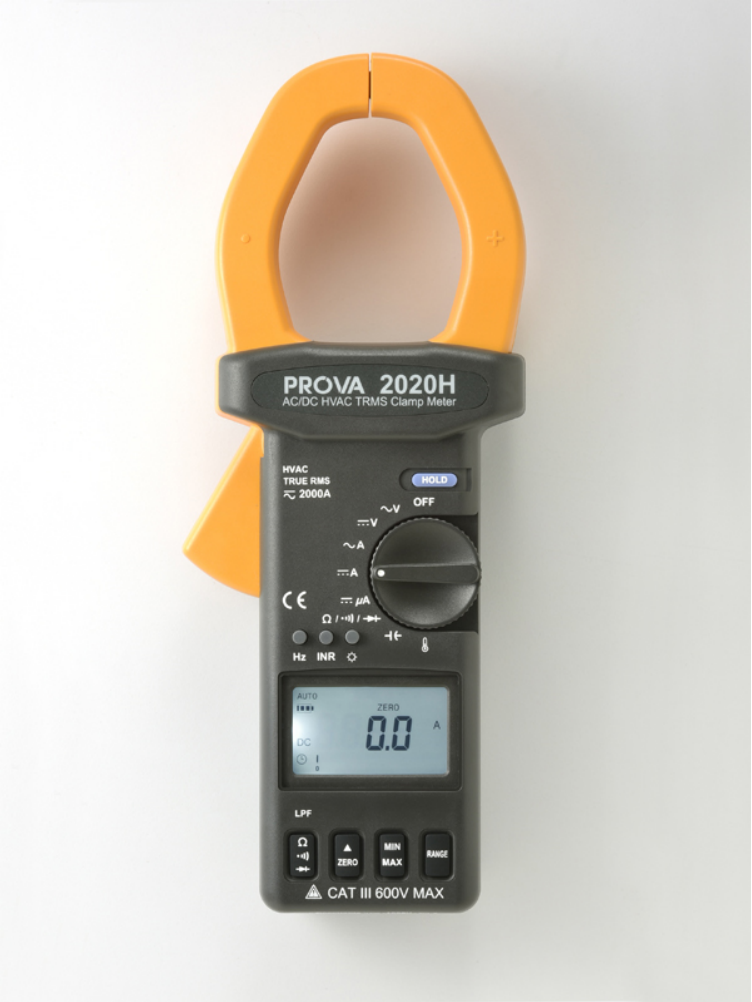
PROVA 2020 AC/DC True RMS Clamp Meter

PROVA 2020H AC/DC HVAC TRMS Clamp Meter

CE
IEC 61010

CAT III 600V



Features:

- **AC/DC current** measurement: 400.0A/ 2000A
- **True RMS** measurement of AC current and voltage
- **Auto and full ranges:** V, A, Resistance, Capacitance and Temperature.
- 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)
- **(PROVA 2020H only) 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 (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)

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 (for PROVA 2020H only, 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.

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

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			

Diode

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

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

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 ▲ 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).

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

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