

# Clamp-On Meter Models 670 & 675



The AEMC® Models 670 and 675 are general purpose, dual display, professional clamp-on meters that measure up to the toughest standards. These meters offer a complete set of measurement functions (AC Amps, DC Amps [675 only], AC Volts, DC Volts, Ohms, Continuity with beeper, Frequency from V or A Input, and Temperature) and are in compliance with international safety and quality standards to ensure professional and reliable measuring tools.

These meters are designed to

measure and display amps and volts at the same time. They are also auto-ranging and provide the best measurement range and resolution for troubleshooting.

The Models 670 and 675 are sized for comfortable, one-handed operation. The tapered and hooked jaw design facilitates maneuvering in crowded wiring and breaker panels, making it easy to select conductors. The jaw opening accommodates one 750kcmil cable or two 350kcmil cables. The large and easy-to-

read 9999-count LCD features comprehensive user information symbols, such as low battery, polarity and overload. Both models are equipped with a Data Hold function that freezes the measurement for later viewing and Min/Max, and Peak function for capture of signals.

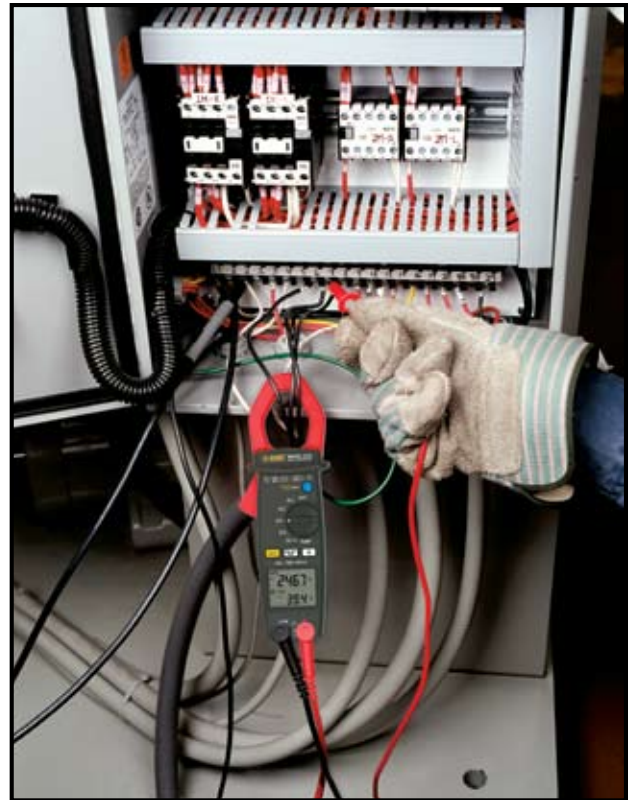
The Model 670 and 675 are True RMS clamp-on meters that provide RMS measurements for today's non-linear electrical environments.

## Features

- Dual display
- Standard size, full function clamp-on meter
- TRMS measurements
- 1000AAC/DC current measurements (DC current on model 675 only)
- 1400VDC volt measurements
- Resistance measurement to 10,000Ω
- Continuity with beeper below 35Ω
- Frequency measurements from V and A inputs
- 1ms Peak function for fast capture of signals
- Hold function to “freeze” readings
- Designed to measure Amps and Volts at the same time
- Push-button for easy A/c zeroing
- Large easy-to-read, 9999-count, backlit display
- Includes test leads, 9V Alkaline battery, soft carrying case and user manual

## Applications

- Commercial, industrial, residential and HVAC troubleshooting
- Power panel, junction box and battery bank monitoring
- AC or DC motor testing
- Power plant troubleshooting
- Electrical testing and troubleshooting on non-linear loads, such as adjustable speed drives and computers



Model 675 measures both volts and amps and displays results simultaneously.

## Specifications

MODEL	670 TRMS		675 TRMS	
<b>ELECTRICAL</b>				
<b>AC AMPERES</b>				
Range	100A	1000A	100A	1000A
Measuring Range	0.00 to 99.99A	100 to 1000A	0.00 to 99.99A	100 to 1000A
Resolution	0.01A	0.1A	0.01A	0.1A
Accuracy	1.5% ± 5cts (50 to 60Hz), 2.0% ± 5cts (50 to 500Hz) 4.5% ± 5cts (500Hz to 3kHz)		1.5% ± 5cts (50 to 60Hz), 2.0% ± 5cts (50 to 500Hz) 4.5% ± 5cts (500Hz to 3kHz)	
Overload	1000Arms		1000Arms	
<b>DC AMPERES</b>				
Range	—		100A	1000A
Measuring Range	—		0.00 to 99.99A	100.0 to 999.9A
Resolution	—		0.01A	0.1A
Accuracy	—		1.2% ± 5cts	2.5% ± 5cts
Overload	—		1400A <sub>dc</sub>	
<b>AC VOLTS</b>				
Range	1000V		1000V	
Measuring Range	0.0 to 999.9V		0.0 to 999.9V	
Resolution	0.1V		0.1V	
Accuracy	1.0% ± 5cts (50 to 60Hz), 1.2% ± 5cts (50 to 500Hz) 2.5% ± 5cts (500Hz to 3kHz)		1.0% ± 5cts (50 to 60Hz), 1.2% ± 5cts (50 to 500Hz) 2.5% ± 5cts (500Hz to 3kHz)	
Input Resistance	1MΩ		1MΩ	
Overload	1000Vrms		1000Vrms	

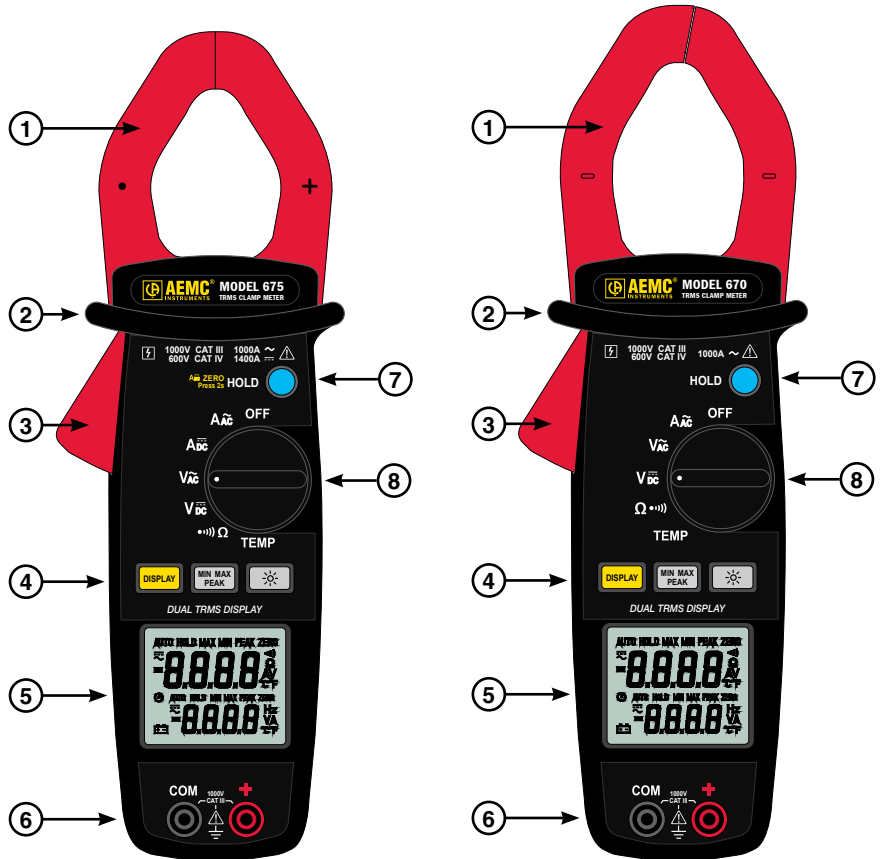
# Specifications

MODEL	670 TRMS			675 TRMS		
<b>DC VOLTS</b>						
Range	1000V		1400V	1000V		1400V
Measuring Range	0.0 to 999.9V		1000 to 1400V	0.0 to 999.9V		1000 to 1400V
Resolution	0.1V		1V	0.1V		1V
Accuracy	1% ± 2cts			1% ± 2cts		
Input Resistance	1MΩ			1MΩ		
Overload	1400Vdc			1400Vdc		
<b>RESISTANCE-OHMS (Ω)</b>						
Range	1000Ω		10,000Ω	1000Ω		10,000Ω
Measuring Range	0.0 to 999.9Ω		1000 to 9999Ω	0.0 to 999.9Ω		1000 to 9999Ω
Resolution	0.1Ω		1Ω	0.1Ω		1Ω
Accuracy	1% ± 3cts, 3.3Vdc (Vmax)			1% ± 3cts, 3.3Vdc (Vmax)		
Protection	1000Vrms			1000Vrms		
<b>Continuity (••))</b>						
Range	••))			••))		
Beeper Activation	< 35Ω			< 35Ω		
Accuracy	1% ± 3cts, 3.3Vdc (Vmax)			1% ± 3cts, 3.3Vdc (Vmax)		
Protection	1000Vrms			1000Vrms		
<b>Frequency (Hz)</b>						
Function	A - Hz		V - Hz	A - Hz		V - Hz
Range	1000Hz		10,000Hz	1000Hz		10,000Hz
Resolution	0.1Hz		1Hz	0.1Hz		1Hz
Sensitivity	3Arms		5Vrms	3Arms		5Vrms
Accuracy	1.0% ± 2cts			1.0% ± 2cts		
<b>Temperature (°C / °F)</b>						
Range	1000°C	1200°C	2192°F	1000°C	1200°C	2192°F
Measuring Range	-40 to 999.5°C	1000 to 1200°C	-40 to 2192°F	-40 to 999.5°C	1000 to 1200°C	-40 to 2192°F
Resolution	0.5°C	1°C	1°F	0.5°C	1°C	1°F
Accuracy	1.0% ± 2°C	1.0% ± 2°C	1.0% ± 4°C	1.0% ± 2°C	1.0% ± 2°C	1.0% ± 4°C
<b>GENERAL</b>						
Low Battery Indicator	[ ] is displayed when the voltage supplied by the battery is lower than the operating voltage			[ ] is displayed when the voltage supplied by the battery is lower than the operating voltage		
Power Supply	9V, NEDA 1604 (6F22) alkaline			9V, NEDA 1604 (6F22) alkaline		
Battery Life	(no buzzer or backlight) 35 hours			(no buzzer or backlight) 30 hours		
Polarity	[ ] is displayed when negative signal applied to input			[ ] is displayed when negative signal applied to input		
<b>MECHANICAL</b>						
Digital Display	3 ½ digits LCD dual display (max reading 9999)			3 ½ digits LCD dual display (max reading 9999)		
Jaw Opening	1.57" (40mm)			1.65" (42mm)		
Dimension	10.71 x 3.15 x 1.69" (272 x 80 x 43mm)			10.12 x 3.15 x 1.69" (257 x 80 x 43mm)		
Weight	17 oz (480g) with battery			15.5 oz (440g) with battery		
Protection Index Of Housing	IP30 according to EN 60529 Ed. 92			IP30 according to EN 60529 Ed. 92		
<b>ENVIRONMENTAL</b>						
Altitude	2000 meters			2000 meters		
Operating Temperature	* -14° to 122°F (-25° to 50°C) < 80% RH, non-condensing			* -14° to 122°F (-25° to 50°C) < 80% RH, non-condensing		
Storage Temperature	-14° to 140°F (-25° to 60°C) < 80% RH, battery removed			-14° to 140°F (-25° to 60°C) < 80% RH, battery removed		
Pollution Degree	2			2		
<b>SAFETY</b>						
Safety Rating	EN 61010-1 Ed.2001; EN 61010-2-032 Ed.2002 600V CAT. IV, 1000V CAT. III			EN 61010-1 Ed.2001; EN 61010-2-032 Ed.2002 600V CAT. IV, 1000V CAT. III		
CE Mark	Yes			Yes		

\* Note: If the meter is to be used below 32°F (0°C), we suggest that the battery be replaced to ensure proper results.

## Construction

1. Jaw Assembly  
Model 670 - 1.65" (42mm)  
Model 675 - 1.58" (40mm)
2. Safety Barrier Anti-slip Guard
3. Lever for Jaw Opening/Closing
4. Function Buttons:
  - Display
  - Min-Max
  - Backlight
5. LCD Display
6. Positive (red) Input and COM (black) Input
7. Data Hold Button/DC Zero
8. Rotary Range Selector Switch



## Accessories



The 670 and 675 include meter, set of test leads (red/black with safety needle tips), K-type thermocouple, one 9V battery, soft carrying case and a user manual.



ORDERING INFORMATION	CATALOG NO.
Clamp-On Meter Model 670 .....	Cat. #2117.49
Clamp-On Meter Model 675 .....	Cat. #2117.50

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