FLUKE ®

Four Things to Consider When Buying a Clamp Meter

1 Choose a clamp that gives accurate and repeatable results

Does your clamp report the true-rms reading?

Is the problem with your motor or your clamp?

Make sure your clamp meter is working for you, not against you.

Imagine that you have spent the whole day troubleshooting a problem with a motor only to discover that the problem wasn't really the motor, but the clamp you were using to measure it. You stake your reputation on your ability to get the job done, be sure your clamp meter is working for you not against you.

First, make sure your clamp meter reports the true-rms reading. Otherwise noise from everything including a variable frequency drive to compact fluorescent bulbs can result in a less accurate reading.

2 Make sure the clamp meter works where you do

Have you ever dropped your clamp?

Do you use your clamp outside?

Ever used you clamp to pry apart wires?

If so, make sure you clamp can work where and how you do.

Making accurate and repeatable results in a laboratory is a good start. But you don't always work in a clean and controlled environment. Before making a purchase, check whether the clamp is specified to work in the environment you do.

Be sure you don't buy a clamp specified for indoor use only or with a minimum operating range warmer than 15 °F if you think you might need to make measurements outside. If the clamp isn't designed for the outdoors the measurements you get might not be accurate.

Finally be sure the clamp you are using is rugged enough to continue to give reliable results after years of prying wires apart, drops from ladders and bouncing around the back of your truck.

3 Don't compromise on safety

Does the clamp have the correct rating for the work you are doing?

Can you use the meter easily when wearing personal protective equipment?

If the answer is no, you could be in danger.

Your test and measurement tools are a critical barrier between you and danger. They are quite literally an extension of your body into a very dangerous environment. First things first, be sure you choose a clamp meter with an appropriate category rating for the work you are doing.

Second, choose a brand with a reputation for providing safe and reliable test equipment. Anyone can buy a clamp meter and put their brand on it. Only a few manufacturers design, build and test their own equipment to exceed international safety standards.

Finally, your clamp meter is part of a safety system that includes personal protective equipment (PPE). In addition to having the right PPE, be sure that you can easily operate your test and measurement equipment with that gear in place.

4 When choosing features, pick quality over quantity

Not using all the features on your clamp meter?

If so, you could be wasting money and functionality.

These days you can get almost anything built into a clamp meter (tape measure anyone?). The more gadgets that are built into a clamp meter, the harder it becomes to use and the worse it performs. Instead of trying to get the most features possible, chose a meter that has the measurement functions you need to get the job done, without any of fluff that doesn't make sense. Plus, you don't end up paying for features irrelevant to the job at hand.
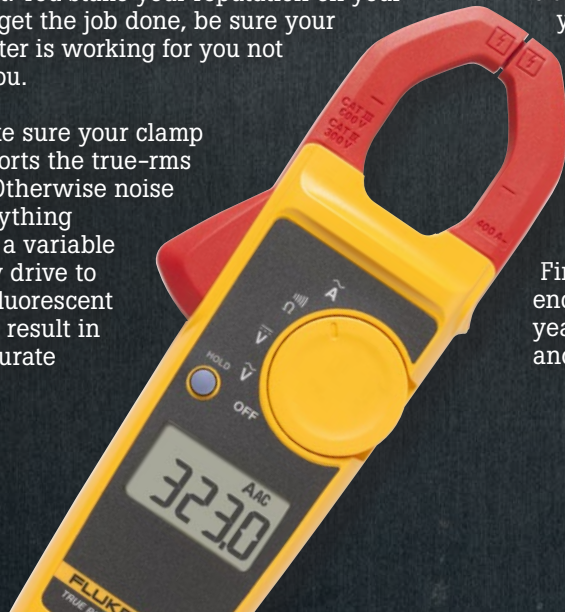
Fluke 323

The best option for general, grab-and-go troubleshooting needs.

Measurement capability:
- 400 A ac current measurement
- 600 V ac and dc voltage measurement
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Resistance measurement up to 4000 Ω with continuity detection

Features:
- Slim, ergonomic design
- CAT IV 300V/CAT III 600 V safety rating
- Hold button
- Two-year warranty
- Soft carrying case

Technical specifications

AC current	Range	Accuracy
	400.0 A	2 % ± 5 digits (45 Hz to 65 Hz) 2.5 % ± 5 digits (65 Hz to 400 Hz)
AC voltage	**Range**	**Accuracy**
	600.0 V	1.5 % ± 5 digits
DC voltage	**Range**	**Accuracy**
	600.0 V	1.0 % ± 5 digits
Resistance	**Range**	**Accuracy**
	400.0 Ω	1.0 % ± 5 digits
	4000 Ω	
Continuity	≤ 70 Ω	
Data hold	Yes	
Category rating	CAT III 600 V, CAT IV 300 V	

Fluke 324

General electrical measurements with temperature and capacitance capabilities.

Measurement capability:
- 400 A ac current measurement
- 600 V ac and dc voltage measurement
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Resistance measurement up to 4000 Ω with continuity detection
- Temperature and capacitance measurement

Features:
- Slim, ergonomic design
- Backlight display
- CAT IV 300V/CAT III 600 V safety rating
- Hold button
- Two-year warranty
- Soft carrying case

Technical specifications

AC current	Range	Accuracy
	40.00 A	1.5 % ±5 digits (45 Hz to 400 Hz)
	400.0 A	*Note: Add 2 % for position sensitivity.*
AC voltage	**Range**	**Accuracy**
	600.0 V	1.5 % ± 5 digits
DC voltage	**Range**	**Accuracy**
	600.0 V	1.0 % ± 5 digits
Resistance	**Range**	**Accuracy**
	400.0 Ω	1.0 % ± 5 digits
	4000 Ω	
Continuity	≤ 30 Ω	
Capacitance	100.0 μF to 1000 μF	
Backlight	Yes	
Data hold	Yes	
Contact temperature	–10.0 °C to 400.0 °C (14.0 °F to 752.0 °F)	
Category rating	CAT III 600 V, CAT IV 300 V	

Fluke 325

Big ac/dc features in a small form factor.

Measurement capability:
- 400 A ac and dc current measurement
- 600 V ac and dc voltage measurement
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Resistance measurement up to 40 kΩ with continuity detection
- Temperature and capacitance measurement
- Frequency measurement
- Min/Max functionality

Features:
- Slim, ergonomic design
- Backlight display
- CAT IV 300V/CAT III 600 V safety rating
- Hold button
- Two-year warranty
- Soft carrying case

Technical specifications

AC current	Range	Accuracy
	40.00 A	2 % ± 5 digits (45 Hz to 65 Hz) 2.5 % ± 5 digits (65 Hz to 400 Hz)
	400.0 A	
AC voltage	**Range**	**Accuracy**
	600.0 V	1.5 % ± 5 digits
DC Current	**Range**	**Accuracy**
	40.00 A 400.0 A	2 % ± 5 digits
DC voltage	**400.0 A**	**2 % ± 5 digits**
	600.0 V	1.0 % ± 5 digits
Resistance	**Range**	**Accuracy**
	400.0 Ω	1.0 % ± 5 digits
	4000 Ω	
	40.00 kΩ	
Continuity	≤ 30 Ω	
Capacitance	100.0 μF to 1000 μF	
Frequency	5.0 Hz to 500.0 Hz	
Backlight	Yes	
Data hold	Yes	
Contact temperature	–10.0 °C to 400.0 °C (14.0 °F to 752.0 °F)	
Min/Max	Yes	
Category rating	CAT III 600 V, CAT IV 300 V	

GO TO WORK WITH THE BEST.

Fluke 320 Series True-rms Clamp Meters