

The 12 Best Clamp Meters in 2024 + Buyer Guide

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Any competent electrician worth his salt knows the value of a good clamp meter. With this electrical tool, you may check the current in a wire without touching it. Due to its critical nature, the clamp meter you choose must be of the highest quality and cannot be compromised in any way.

On the Linquip website, among the many options available to you, you will find all the information you need to know about the Clamp Meters, as well as information regarding this marketplace. You can count on Linquip to provide you with as much general and reliable information about this topic, whether you're a professional or a customer looking for a proper company. We recommend you review a list of all **Clamp Meters** available in Linquip.

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List of 12 Best Clamp Meters in 2024

According to the factors that we will mention in this article, Here is the List of 12 Best Clamp Meters in 2024:

- **Fluke 323 True-RMS Clamp Meter**
- **Extech 380947 True RMS 400A AC/DC Mini Clamp on Meter**
- **Klein Tools CL800 Digital Clamp Meter**
- **Amprobe AMP-220 True-RMS 600A AC/DC Clamp Meter**
- **Fluke 325 Clamp Multimeter AC-DC TRMS**
- **IDEAL INDUSTRIES INC. 61-744 Clamp Meter**
- **Sperry Instruments DSA540A 6 Function Digital Snap-Around Clamp Meter**
- **Uni-T Best Mini Ac Dc Clamp Meter**
- **UEi Best Clamp Meter for Electricians**
- **376FC True-RMS Fluke Clamp Multimeter**
- **Flir CM174 Imaging 600A AC/DC Clamp Meter**

- **Fieldpiece SC260 Compact Clamp Multimeter**

How We Selected The 10 Best Clamp Meters in 2024

Any competent electrician knows the importance of a good clamp meter. It is a critical tool that allows you to check the current in a wire without touching it. At Linqip, we understand that choosing the right clamp meter is essential and cannot be compromised in any way. That's why we analyzed more than 15 web pages and hundreds of products and reviewers, consulted with our experts, and considered various factors such as accuracy, durability, safety ratings, and customer feedback to select the best clamp meters in 2024.

Additionally, we took into account the versatility of each meter, evaluating how well they perform across different electrical measurements and in various environments. We also assessed the ease of use, considering factors such as the clarity of the display, user interface, and overall ergonomic design, ensuring the selected clamp meters are not only effective but also user-friendly for professionals of varying skill levels.

The Best Clamp Meters in 2024

1. Fluke 323 True-RMS Clamp Meter



Fluke 323 True-RMS Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Identifying Continuity
- RMS-capable, meaning that it can accurately measure the RMS of a signal
- Robust and trustworthy
- Made with ergonomics in mind
- High dynamic range for measuring current, voltage, and resistance

Cons

The extended ends of the lead plugs make them difficult to use in some situations.

Specifications

Current Range	up to 400 A (AC)
Voltage Range	up to 600 V (AC and DC)
True RMS	Yes
Resistance Range	up to 4 k Ω
Safety Ratings	CAT IV (300V) / CAT III (600V)

Product Description

One of the greatest clamp meters available is the Fluke 323 True RMS. Both home and business electricians can benefit from its unique design. What sets this device apart from others is its ergonomic construction for use in the roughest industrial settings. It weighs only 265 grams and measures 207 by 75 by 43 millimeters (mm), yet is durable and dependable (H x W x D).

Accuracy is 2% +/- 5 digits (45 Hz to 65 Hz) for AC currents up to 400A, and 2.5% +/- 5 digits for DC currents of the same range (65Hz to 400 Hz). It is important to remember that the Fluke 323 True RMS clamp meter does not read direct current. To the nearest 1.5% (+/- 5 digits) for AC measurements and 1.0% (+/- 5 digits) for DC measurements, you may expect values up to 600V for both types of voltage. Your resistance readings up to 4 k will be accurate to within +/- 1%.

Under 70, the clamp meter can offer continuity by emitting a beeping sound. There are flaws with this clamp meter. The extended plugs at the ends of the test leads are a unique feature. When put on a flat surface, they become more troublesome. Furthermore, the multimeter comes with a 2-year guarantee and a safety grade of CAT III (600V) and CAT IV (300V). You'll get the test leads, the case, and the instructions with your order.

What sold us on Fluke devices was the company's dedication to providing excellent support to its customers. The goal of their website was to create a simpler shopping experience. In addition to the user handbook, they include a calibration manual, reference guide, safety sheet equipment, and a clamp selection guide, all of which are excellent resources. The Fluke 323 True RMS multimeter is a great option if you're looking for a high-quality clamp meter.

2. Extech 380947 True RMS 400A AC/DC Mini Clamp on Meter



Extech 380947 True RMS 400A AC/DC Mini Clamp on Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Mean square error (RMS) measurement accuracy
- Inadequately high resolution (1mA for AC)
- Functionality to retain data between specified ranges
- Maximum of 10 kHz frequency range.
- Quick 40-bar analog graph

Cons

The current/voltage sensor remains on at all times. The annoyance of the meter's persistent blinking light, which may eventually drain the batteries, is outweighed by the possible danger to the user.

Specifications

Current Range	up to 400 A (DC and AC)
Voltage Range	non
True RMS	Yes
Resistance Range	up to 400 Hz
Safety Ratings	CAT III (300V), CE and UL tested

Product Description

When looking for the best clamp meter, the Extech 380947 True RMS 400A AC/DC Mini Clamp on Meter is a fantastic selection. If you need to operate or measure extremely small currents, this is the best option. The high resolution measurements (1mA for AC and 10mA for DC) are the real show stopper with this clamp meter. All the important measurements parameters and signals may be seen on the huge 4000 count LCD display. This LCD screen also has a 40-segment analog bar graph for further functionality. That makes it feel like the numerous measurement displays are happening in real time.

The 380947 model's clamp meter features an adjustable jaw that may open to a depth of 0.9 inches for convenient use (23mm). It's important to note that this clamp meter is technically rather advanced. Capable of delivering AC currents with a +/- (1.5% accuracy) throughout a range of 4A/40A/100A/400A. It can measure DC currents of up to 400A with a precision of +/- (1.0%). It has a frequency range of 0 to 10 kHz with a resolution of 0 to 0.01 Hz and an accuracy of 0 to 0.5%.

The Extech clamp meter that I have does not measure alternating current or direct current. The other versions, 380942 and 380941, can monitor voltage, though. Further, it is only useful while troubleshooting, and a few users have complained that the meter readings are quite sluggish owing to the higher accuracy settings. Despite this, it is still a fantastic nimble and flexible instrument, measuring 7 by 1.8 by 1.3 inches (178 by 45 by 32 millimeters), and weighing 225 grams (8oz). The Extech 380947 True RMS 400A AC/DC Mini Clamp on Meter is an excellent choice if you need a meter that can measure low currents for diagnostic or troubleshooting purposes.

3. Klein Tools CL800 Digital Clamp Meter



Klein Tools CL800 Digital Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- A low impedance setting that's used to block off unwanted voltages
- Excellent security ratings
- A thermocouple is a device used to take temperature readings.
- Can survive a fall from a height of 6.6 feet (2 meters)
- Powerful 1 Hz to 500 kHz frequency coverage.

Cons

Hall effect DC measurement is not very reliable, and the leads are a little flimsy, so you may need to replace them.

Specifications

Current Range	up to 600 A (DC and AC)
Voltage Range	up to 1000 V (AC and DC)
True RMS	Yes
Resistance Range	up to 60 M Ω
Safety Ratings	CAT IV (600V), CAT III (1000V) with Class 2 double insulation protection

Product Description

The AC/DC Auto-Ranging Digital Clamp Meter from Klein Tools is a true root mean square (TRMS) meter with automatic range setting for testing and measuring diodes, AC/DC voltage, resistance, continuity, frequency, and capacitance. It has a low impedance (LoZ) mode and a thermocouple, as well as safety ratings of CAT IV 600V, CAT III 1000V, Class 2, and double insulation.

I appreciated the amp clamp and small, durable design right away. The clamp's trigger has been rubberized for better grip. Looks like a complete set, ready to go as soon as you need it for servicing and troubleshooting. As for the mystery around the Tough Meter, what does it refer to exactly?

So, according to Klein, the meter may be dropped from a height of around 6 feet and it will be OK. We are trusting the company's word on this.

4. Amprobe AMP-220 True-RMS 600A AC/DC Clamp Meter



Amprobe AMP-220 True-RMS 600A AC/DC
Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Detection of Voltage Without Contact
- Light-emitting diode (backlight) LCD screen display of considerable size
- Measurement of the root-mean-square (RMS) of AC signals for reliable analysis.
- This low pass filter is ideal for testing the voltage and current of VSDs.
- Ergonomically sound, durable, and built to last

Cons

The temperature readings are unreliable.

Specifications

Current Range	up to 600 A (AC or DC)
Voltage Range	up to 600 V (AC or DC)
True RMS	Yes
Resistance Range	up to 60 k Ω
Safety Ratings	CAT III (600V), CAT IV (600V), CAT III (1000V)

Product Description

When it comes to clamp meters, the Amprobe AMP-220 Clamp Meter stands out as a true treasure. In addition to being a True RMS meter, it also features an amp-tip for highly accurate current readings. Clamp meter's ergonomic design maximizes battery life and has an automatic shutoff button. It includes a big LCD screen with a backlight, so it works well even in dimly lit offices.

As far as technology goes, this clamp meter can hold its own as well. It has an accuracy of +/- 1% for DC measurements and +/- 2% for AC measurements at (50/60Hz) and a maximum voltage range of 600V (both ac and dc). It also measures resistance and capacitance up to 60 k and 2500 F, respectively, and can measure frequencies between 5 and 999.9 Hz.

Low pass filtering is included in. Measure alternating voltages and currents on variable speed motors and HVAC systems with ease thanks to this handy function. Despite its convenience, this clamp meter has some major flaws, namely inaccurate temperature readings and measures.

Having said that, this meter performs admirably in a wide range of professional settings. One buyer even mentioned how useful it was for him in his overhead crane maintenance work. The Amprobe AMP-220 Clamp Meter is a great option if you're shopping for a high-quality, multipurpose clamp meter because of its ergonomic design, its durability, and its user-friendliness.

5. Fluke 325 Clamp Multimeter AC-DC TRMS



Fluke 325 Clamp Multimeter AC-DC TRMS
(Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Clamp meter with real root-mean-square readings
- Capability to assess frequency and continuity
- Excellent for confined places
- Built for the rigors of the workplace
- Measure electrical current up to 30mm away without touching the wires.

Cons

For whatever reason, the package is written in Chinese. The English-language instructions are available for download on Fluke's website.

Specifications

Current Range	up to 400 A
Voltage Range	up to 600 V
True RMS	Yes
Resistance Range	up to 40 k Ω
Safety Ratings	CAT IV 300V/CAT III 600V

Product Description

If you are looking for a high-quality clamp meter, go no further than the Fluke 325. It's a digital clamp meter that can measure up to 40 k of resistance, 600V of DC or AC voltage, and 400A of alternating current. This clamp meter is a powerhouse in its field.

It was developed with factory use in mind. In particular, its small, compact profile and user-friendly jaw clamp with a mechanical button attest to its ergonomic quality. There was a lot of technical effort put into making this tool, just like there was when developing every other Fluke device. This device is completely noiseless and gives trustworthy results.

This clamp meter is convenient since it comes with a carrying bag and a K-type thermocouple that can measure temperatures from minus ten degrees Celsius to plus four hundred degrees Celsius. However, numerous purchasers have noted that the actual package is that of a Fluke product aimed for the Chinese market, with all information and user manuals offered in Chinese.

This is an annoyance, but all of Fluke's product documentation is available for free internet download. This clamp meter comes with a 2-year guarantee that you can take advantage of once you've made your purchase. The Fluke 325 clamp meter is an excellent option to consider if you are shopping for a professional-grade clamp meter.

6. IDEAL INDUSTRIES INC. 61-744 Clamp Meter



IDEAL INDUSTRIES INC. 61-744 Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Capable of both automatic and manual ranging
- Security against electronic overload in all usable settings
- Unbroken flow, both visually and aurally
- A brilliant method for detecting voltage without touching the source (70V – 600 Vac)
- Streamlined and comfortable layout

Cons

It is not a frequency counter.

Specifications

Current Range	up to 600 A
Voltage Range	up to 600 V
True RMS	up to 40 MΩ
Resistance Range	No
Safety Ratings	CAT III (600V)

Product Description

When it comes to tools, the IDEAL INDUSTRIES INC. 61-744 Clamp Meter is among the best you can buy. It has a CAT III (600V) safety rating, meaning that it may be used in high-voltage settings while remaining functional.

The clamp meter in question can be used either automatically or manually. The non-contact voltage indicator is easy to see and can monitor voltages from 70 Vac to 600 Vac.

It has several useful functions, such as storing information and providing a beeping sound to indicate that data transmission is still active. The tiny jaws of this clamp meter are another advantageous feature, allowing for simple passage even through narrow openings.

This flexibility is especially helpful for running and testing currents in HVAC systems and variable-speed drives, which need a fair amount of movement.

A minor annoyance is that this clamp meter cannot be used to gauge frequency. Despite these caveats, the clamp meter is a wonderful buy for the money, with superb accuracy for measuring AC current (1.7%), AC voltage (1.2%), DC voltage (0.5%), and resistance (1.00%).

The 61-744 Clamp Meter from IDEAL INDUSTRIES INC. is an excellent choice if you're looking for a high-quality instrument at a reasonable price.

7. Sperry Instruments DSA540A 6 Function Digital Snap-Around Clamp Meter



Sperry Instruments DSA540A 6 Function Digital Snap-Around Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Digital clamp meter with 26-point auto-ranging
- Included datahold and relative function
- Space-saving and lightweight construction
- The signaling danger with a loud beep and a flashing LED screen

- We provide a limited lifetime guarantee with your purchase.

Cons

Although it has solid technological specs, it has not received a great deal of critical acclaim.

Specifications

Current Range	up to 400 A (AC and DC)
Voltage Range	up to 600 V (AC and DC)
True RMS	up to 40 MΩ
Resistance Range	Yes
Safety Ratings	CAT IV (600V) and CAT III (300V)

Product Description

For a high-quality clamp meter, consider the Sperry Instruments DSA540A 6 Function Digital Snap-Around Meter. This gauge has the ability to take relative readings and save information for later use. When the battery is fully charged, it turns off automatically to conserve electricity. In terms of specs, it can measure AC/DC currents up to 400A, AC/DC voltages up to 600V, and resistances up to 40 M.

The only real drawback to this clamp meter is that there aren't enough contrasting evaluations available online to draw any firm conclusions regarding the product's popularity.

Aside from the fact that it comes with a lifetime guarantee and excellent technical specs, this multimeter is a true jewel in the market's buried treasure chest.

8. Uni-T Best Mini Ac Dc Clamp Meter



Uni-T Best Mini Ac Dc Clamp Meter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Most economical
- Unique style
- Real-time RMS sensing
- Null mode
- Volts test without touch
- Backlit auto-range lcd

Cons

- No guarantee
- For milli DC amps, accuracy is not great.
- There is no temperature readings

Specifications

Brand	UNI-T
Power Source	Battery Powered
Item Weight	170 Grams
Item Dimensions LxWxH	6.89 x 1.32 x 2.36 inches
Measurement Type	Ohmmeter

Product Description

Our top focus while compiling our list of the finest clamp meters was the best user experience. Only the most robust, accurate, and user-friendly clamp meter can provide us with a worthwhile user experience. This uni-T small clamp meter comes highly recommended if you're looking for a clamp meter for domestic use.

It may be used to determine the current flowing in a variety of electric devices, including trolling motors, medium power motors, electrical appliances, and automobile circuits.

It is still offered at a very low price and is among the most highly rated clamp meters. For Internee electronics and electrical engineers who may use it for educational reasons, it can be the greatest multimeter for a reasonable price. Who among us would not like a trustworthy electrical clamp meter that is standard and affordable?

9. UEi Best Clamp Meter for Electricians





UEi Best Clamp Meter for Electricians (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- Three-year warranty
- Two displays
- Materials made of ABS
- Automatic range
- Max/Min records
- Includes a zipper pouch
- Accessible battery compartment

Cons

- LCD has no backlight.
- No real RMS
- Zero DC amps

Specifications

Brand	UEi Test Instruments
Power Source	Battery Powered
Style	Clamp-On Meter
Item Weight	0.65 Ounces
Item Dimensions LxWxH	1.49 x 2.98 x 8.7 inches

Product Description

A multimeter with the capacity to provide continuous, uninterrupted performance would be the best clamp meter for HVAC. We cannot squander time or money on low-cost, subpar multimeters, whether they are being used for industrial or commercial purposes. The money we may save by purchasing low-quality, lower-priced clamp meters could result in a loss greater than our savings.

When discussing clamp meters, Uei is a well-known brand. They manufactured a large number of clamp meters of the highest caliber on a shoestring budget without sacrificing precision or competence. It can compete with any other pricey clamp meter in terms of accuracy and toughness. Additionally, we admired its sleeker body form and exquisite design, which give it a commanding appearance.

10. 376FC True-RMS Fluke Clamp Multimeter



376FC True-RMS Fluke Clamp Multimeter (Reference: [amazon.com](https://www.amazon.com))

Pros & Cons

Pros

- three-year warranty
- Fluke app connected to phone
- Online report creation and collaboration
- Memory records
- Accuracy
- Pouch to carry in a package
- Low-pass filtration
- True RMS measurements

Cons

- Expensive
- Ability to operate required
- Only for usage in industries

Specifications

Brand	Fluke
Power Source	Battery Powered
Style	FLUKE-376 FC
Item Weight	0.96 Kilograms
Item Dimensions LxWxH	10.6 x 5.2 x 3.7 inches

Product Description

Are you tired of using low-quality clamp meters? which, as a result of the significant mistakes in their readings, were to blame for your diversion from the true source of the electric difficulties. Many businesses claim to manufacture high-quality clamp meters, but only a select handful can be trusted for accuracy and precision. Electricians and electrical engineers most frequently rely on Fluke clamp meters when they don't want to waste time comparing the accuracy of other meters.

It takes time to read reviews and analyze clamp meters in order to choose the best clamp meter, we freely confess. However, there is a fix for every issue. Fluke clamp meters are the best alternative if you are willing to invest more money or have a budget for your business.

For improved cooperation and communication in electric troubleshooting operations, this faulty ampere meter is equipped with cutting-edge novel technology. It can communicate with cellphones, provide thorough reports, and gather information to better understand the behavior of signals.

11. Flir CM174 Imaging 600A AC/DC Clamp Meter



Flir CM174 Imaging 600A AC DC Clamp Meter (Reference: [flir.com](https://www.flir.com))

Pros & Cons

Pros

- **Thermal Imaging Capability:** The integrated thermal camera allows for easy identification of hot spots and potential electrical issues without direct contact.
- **Versatility:** Combines traditional clamp meter functions with advanced imaging, making it suitable for a wide range of applications.
- **Safety:** Enhances user safety by allowing for non-contact troubleshooting.

- **User-Friendly:** Features an intuitive interface and a clear display, making it accessible even for those new to thermal imaging.
- **Durability:** Built to withstand tough working environments, making it reliable for both indoor and outdoor use.

Cons

- **Cost:** The inclusion of thermal imaging technology typically makes it more expensive than standard clamp meters.
- **Complexity:** For users who only need basic clamp meter functions, the additional features might be unnecessary and add to the learning curve.
- **Size and Weight:** It might be slightly bulkier and heavier than traditional clamp meters due to the added thermal imaging components.
- **Battery Life:** The use of thermal imaging can consume more power, potentially leading to shorter battery life compared to basic clamp meters.

Specifications

Brand	Flir
Power Source	Battery Powered
Style	Clamp Meter with Thermal Imaging
Item Weight	Varies, typically around 1 to 1.5 pounds
Item Dimensions LxWxH	Varies, commonly in the range of 9.7 x 4.0 x 2.0 inches (approximate)

Product Description

The Flir CM174 Imaging 600A AC/DC Clamp Meter stands out in the world of electrical measurement tools due to its integration of thermal imaging technology. This innovative feature allows electricians and technicians to quickly identify hot spots and potential electrical issues without direct contact with panels, wires, or devices. The thermal imaging capability significantly enhances safety and efficiency, especially in complex diagnostic scenarios. Beyond thermal imaging, the CM174 also offers traditional clamp meter functionalities, including the ability to measure AC/DC current, voltage, and resistance.

In addition to its thermal imaging feature, the Flir CM174 is designed for practicality and durability. It's equipped with a wide jaw opening to accommodate large conductors and includes multiple measurement modes for comprehensive electrical diagnostics. The meter's interface is user-friendly, featuring a clear display and intuitive controls. Its robust construction ensures reliability in various working environments, from industrial sites to residential electrical systems. This combination of advanced thermal technology and standard measurement capabilities makes the Flir CM174 a versatile tool for a wide range of electrical testing needs.

12. Fieldpiece SC260 Compact Clamp Multimeter



Fieldpiece SC260 Compact Clamp Multimeter (Reference: [amazon.nl](https://www.amazon.nl))

Pros & Cons

Pros

- **Compact and Lightweight:** Ideal for carrying around and using in tight spaces.
- **True RMS Capability:** Ensures accurate readings on non-linear loads, crucial in many modern electrical systems.
- **Integrated Temperature Measurement:** A valuable feature for HVAC applications, adding to its versatility.
- **User-Friendly Interface:** Easy-to-read display and simple controls make it accessible for all levels of users.
- **Durable Design:** Built to withstand the rigors of fieldwork, making it reliable for daily use.

Cons

- **Limited Advanced Features:** May not have all the advanced features or settings found in more sophisticated models, which could be a drawback for some specialized applications.
- **Display Size:** While clear, the display might be smaller than some users prefer, especially in low-light conditions.
- **Battery Dependency:** Relies on batteries, so keeping spares on hand is necessary to avoid interruptions during work.
- **Niche Focus:** While excellent for HVAC, its specialized nature might limit its appeal for professionals looking for a more general-purpose tool.

Specifications

Brand	Fieldpiece
Power Source	Battery Powered (usually AAA batteries)
Style	Compact Clamp Multimeter
Item Weight	Approximately 1.2 pounds (varies slightly)
Item Dimensions LxWxH	Approx. 9 x 3 x 1.5 inches (varies slightly)

Product Description

The Fieldpiece SC260 Compact Clamp Multimeter is a versatile and user-friendly tool designed for HVAC professionals and electricians who require a reliable, compact instrument for their work. This multimeter is particularly noted for its True RMS capabilities, which allow for accurate readings on non-linear loads, a critical feature for modern electrical environments. It includes functions for measuring AC/DC voltage, current, resistance, capacitance, and even has a built-in temperature measurement feature with a thermocouple probe, making it highly suitable for HVAC applications.

Compact in design, the SC260 is tailored for convenience and ease of use in tight spaces or when working on crowded electrical panels. Its straightforward interface, with a clear backlit display and easy-to-navigate buttons, makes it accessible even to those who may not be highly experienced with advanced electrical measurement tools. Despite its small size, it doesn't compromise on functionality, offering a range of measurements essential for both troubleshooting and routine maintenance tasks.

Choosing the Right Clamp Meter: A Buyer's Guide

Electrical current may be measured with a clamp meter, which is a type of electrical instrument. Compared to the conventional way of monitoring current flow, these gadgets significantly increase safety (which is cutting a live wire and measuring the current flow by inserting a test lead on the circuit).

As a result of the risks associated with this procedure, a clamp meter was developed. To measure current, a clamp meter applies the current transformer concept. The magnetic flux is detected and measured by the clamp in the clamp meter, which then displays the current measurement on a screen.

Clamp meters may be divided into two basic varieties:

An Alternating Current Clamp Meter

Particularly, these instruments are used to gauge alternating currents.

A DC Clamp Meter

Tools that measure both direct current and alternating current. For precise current readings, a DC clamp meter often makes use of a Hall Effect sensor.

Clamp Meters: What You Need to Know Before Buying

Assurance of Security

When shopping for a clamp meter, safety features should be your first priority. By inspecting the device's casing and hardware, it's easy to see that this is the case. The higher the device's total voltage, current, and resistance ratings, the less risk it poses. In addition, a plethora of regulatory certifications, issued to only the safest equipment, serves as a loud and clear indicator of a product's reliability.

Clamp Size

Clamp openings are the actual holders you'd use to grab onto the conductor, therefore their dimensions are what the term "clamp size" refers to. Likewise, the widths of these apertures might be anything from 17 millimeters to 45 millimeters. Clamps may be found in a range of sizes as well. On the sizing spectrum, they are adjustable.

In order to accommodate the conductor, they are expandable and may be shrunk down to a more manageable size. In addition, clamp meters typically have non-contact voltage detectors that first check the wire's conductivity by wrapping the clamp around it. It is possible to test a circuit's conductivity in this way without touching any of the components.

Limit of Maximum Resistance

How much of an electrical current a clamp meter is able to halt is indicated by its resistance, which is expressed in Ohms. The resistance to current flow via the conductor can be gauged in this way.

There are clamp meters that measure resistance up to 10 kilo-ohms, but most only go up to 4 kilo-ohms at most. High resistance, perhaps up to 20 kilo-ohms, may be necessary when working with heavier conduction instruments. If you just plan on using the gadget in one place, a little resistance should suffice.

LCD Display with Backlighting

Since most electrical work is done after hours, when it is dark, having a screen with a backlight is a terrific addition. Because of this, gauging conduction will be a breeze. Since not all clamp meters come standard with backlit displays, you'll want to make sure you choose one that does.

The Crest

Clamp meters measure the crest factor, or the peak of the current wave, using a clamp. You may calculate it by comparing the peak current value to the Root Mean Square Value (RMS Value). This information is crucial for determining the severity of circuit overloads. Keep an on-screen metric that allows for a direct readout of this figure in mind.

Support for Mobile Devices

Most new digital DC clamp meters connect to mobile devices wirelessly through Bluetooth or near IR technology. You can examine the measures remotely after installing a little app, without having to be in close proximity to the measuring equipment or screen.

This is not only a foolproof technique but also an effective one since the user can fine-tune the machine with the aid of their smartphone. Email, online document collaboration, and cloud storage are all examples.

Guarantee

Although not all clamp meters have a warranty period, reputable brands of clamp meters often have a 1-year manufacturer's guarantee beginning on the date of purchase. In addition, there are a select few manufacturers that will back their products with a three-year guarantee.

Maximum Allowable Current in Amperes

It is a measure of the clamp meter's durability that indicates how much of the rated current the device can handle. A device with a rating of 1000 Amps may be considered industrial strength, whereas those with ratings of 300 Amps or 400 Amps are more typical of the kind of tools found in homes and workshops. The option you pick would be determined by your requirements.

Supplemental Parts and Pieces

Since you will likely be working in a remote location, away from your typical toolbox, a clamp meter with extra accessories like a tiny LED light, a nice dust-free cover, or a few alligator clips or points will be of great aid.

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