

Fluke 355/353 True-rms 2000 A Clamp Meters

Technical Data

High current and a large jaw, make these clamps well suited for industrial and utility applications

Confidently take reliable readings with the true-rms, Fluke 355/353 Clamp Meters; the tools of choice for high-current measurements up to 2000 A. The extra-wide jaw easily clamps around large conductors typically found in high-current applications. The rugged design and CAT IV 600 V, CAT III 1000 V ratings, add an extra element of protection when taking high-powered measurements.

Accurate peak measurements can be taken using the in-rush current mode, ideal for motors and inductive loads. The 355 also measures voltage and resistance, making this the most versatile tool for utilities, electrical contractors, and industrial service technicians.



- Reliably handle a wide range of high-current applications with 2000 A ac + dc true-rms, 1400 A ac, and 2000 A dc
- The large 58 mm (2.3 in) jaw capacity is suitable for large, or multiple conductors
- CAT IV 600 V, CAT III 1000 V rating for added user protection
- In-rush current measurement captures 'power-on' surge current with accuracy and repeatability
- High voltage measurement of 1000 V ac + dc true-rms, 600 V ac, and 1000 V dc allows users to perform multiple tests with only one tool (355 only)
- Resistance to 400 k Ω coupled with a continuity beeper, provide the convenience of a multimeter (355 only)
- Accurately measure frequency up to 1 kHz for optimum troubleshooting
- Quickly analyze readings using the MIN, MAX, and AVG functions
- A large backlit display allows for easy visibility in low-lit areas
- Use the display hold feature to capture readings even when the display cannot be viewed
- Use the low-pass filter to smooth out noisy loads and stabilize readings



Specifications

Electrical specifications

Current measurement dc and ac 10 Hz to 100 Hz

| Range | Resolution | Accuracy, A | Trigger Level for Inrush | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|------------------------|------------|-----------------------|--------------------------|---------------------------------|--------------------------------|
| 40 A | 10 mA | 1.5 % rdg + 15 digits | 0.50 A | 2.50 A | 0.50 A |
| 400 A | 100 mA | 1.5 % rdg + 5 digits | 5.0 A | 2.5 A | 2.5 A |
| 2000 A; 1400 ac rms | 1 A | 1.5 % rdg + 5 digits | 5 A | 8 A | 8 A |

Crest Factor (50/60 Hz)

| Range | Crest Factor* |
|---------------------|-------------------------|
| 40 A | 2 @ 33 A, 2.4 @ 27 A |
| 400 A | 2 @ 330 A, 2.4 @ 270 A |
| 2000 A; 1400 ac rms | 2 @ 1000 A, 2.4 @ 833 A |

*Add 2 % to error spec for CF > 2

Current measurement ac 100.1 Hz to 1 kHz

| Range | Resolution | Accuracy > 10 A | Trigger Level for Inrush | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|------------------------|------------|-----------------------|--------------------------|---------------------------------|--------------------------------|
| 40 A | 10 mA | 3.5 % rdg + 15 digits | 0.50 A | 2.50 A | 0.50 A |
| 400 A | 100 mA | 3.5 % rdg + 5 digits | 5.0 A | 2.5 A | 2.5 A |
| 2000 A; 1400 ac rms | 1 A | 3.5 % rdg + 5 digits | 5 A | 8 A | 8 A |

Voltage measurement (355 only) dc and ac 10 Hz to 100 Hz

600 V and 1000 V ranges have 10 % over range to 660 V and 1100 V respectively.

| Range | Resolution | Accuracy | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|--------------|------------|---------------------|---------------------------------|--------------------------------|
| 4 V | 1 mV | 1 % rdg + 10 digits | 0.050 V | 0.050 V |
| 40 V | 10 mV | 1 % rdg + 5 digits | 0.25 V | 0.25 V |
| 400 V | 100 mV | 1 % rdg + 5 digits | 6 V | 6 V |
| 600 V ac rms | 1 V | 1 % rdg + 5 digits | 6 V | 6 V |
| 1000 V dc | 1 V | 1 % rdg + 5 digits | N/A | N/A |

Voltage measurement (355 only) ac 100.1 Hz to 1 kHz

600 V and 1000 V ranges have 10 % over range to 660 V and 1100 V respectively.

| Range | Resolution | Accuracy | Trigger Level for Hz Filter OFF | Trigger Level for Hz Filter ON |
|--------------|------------|---------------------|---------------------------------|--------------------------------|
| 4 V | 1 mV | 3 % rdg + 10 digits | 0.050 V | 0.050 V |
| 40 V | 10 mV | 3 % rdg + 5 digits | 0.25 V | 0.25 V |
| 400 V | 100 mV | 3 % rdg + 5 digits | 6 V | 6 V |
| 600 V ac rms | 1 V | 3 % rdg + 5 digits | 6 V | 6 V |

Ohms measurement (355 only)

| Range | Resolution | Accuracy |
|--------|------------|------------------|
| 400 Ω | 0.1 Ω | 1.5 % + 5 digits |
| 4 kΩ | 1 Ω | 1.5 % + 5 digits |
| 40 kΩ | 10 Ω | 1.5 % + 5 digits |
| 400 kΩ | 100 Ω | 1.5 % + 5 digits |

Continuity beeper (355 only)

On at $\leq 30 \Omega$
 Off at $\geq 100 \Omega$

Frequency measurement

| | |
|------------------------------|--|
| Measurement range | 5.0 Hz to 1 kHz |
| Resolution | 0.1 Hz (15 Hz to 399.9 Hz); 1 Hz (400 Hz to 1 kHz) |
| Accuracy – 5.0 Hz to 100 Hz | 0.2 % + 2 counts |
| Accuracy – 100.1 Hz to 1 kHz | 0.5 % + 5 counts |
| Trigger level | Refer to current and voltage tables |

General specifications

| | |
|--|---|
| Batteries | Six 1.5 V AA NEDA 15 A or IEC LR6 |
| Battery life (with typical usage, backlight off) | 100 hours |
| Test leads | Rated to 1000 V |
| Weight | .814 kg (1.8 lb) |
| Jaw size | 58 mm (2.28 in) |
| Dimensions (LxWxD) | 300 mm x 98 mm x 52 mm (12 in x 3.75 in x 2 in) |
| Safety rating | IEC 61010-2-032, 600 V CAT IV, 1000 V CAT III |

Environmental specifications

| | |
|--------------------------|--|
| Operating temperature | 32 °F to + 122 °F (0 °C to +50 °C) |
| Storage temperature | -4 °F to 140 °F (-20 °C to +60 °C) |
| Operating humidity | 0 to 95 % (non-condensing) |
| Operating altitude | 2000 m |
| Storage altitude | 10,000 m |
| IP rating | 42 (indoor use only) |
| Drop test requirements | 1 m |
| EMI, RFI, EMC | FCC part 15, IEC/EN 61326-1:1997 class B, IEC/EN 61326:1997 3V/m, performance criteria B, EN61325 |
| Temperature coefficients | Current: 0.1 % of reading per °C outside 22 °C to 24 °C Voltage: 0.1 % of reading per °C outside 22 °C to 24 °C |

Ordering information:

Fluke-353 AC/DC True-rms Clamp Meter, 2000 A, Amps only
Includes: C43 Soft Carrying Case, 6 AA batteries, and users manual

Fluke-355 AC/DC True-rms Clamp Meter, 2000 A
Includes: C43 Soft Carrying Case, 6 AA batteries, TL224 1.5 m Silicone Rubber Test Leads, TP2 Test Probes, AC285 Alligator Clips, and users manual



Fluke-355



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