# Fluke 355/353 <br> <br> True-rms 2000 A Clamp Meters 

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## 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 highcurrent 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 $58 \mathrm{~mm}(2.3 \mathrm{in})$ 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 $400 \mathrm{k} \Omega$ 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 $\mathbf{1 0} \mathbf{~ H z}$ to $\mathbf{1 0 0} \mathbf{~ H z}$

| Range | Resolution | Accuracy, A | Trigger Level for <br> Inrush | Trigger Level <br> for Hz <br> Filter OFF | Trigger Level <br> $\mathbf{f o r ~ H z}$ <br> Filter ON |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 40 A | 10 mA | $1.5 \% \mathrm{rdg}+15$ digits | 0.50 A | 2.50 A | 0.50 A |
| 400 A | 100 mA | $1.5 \% \mathrm{rdg}+5$ digits | 5.0 A | 2.5 A | 2.5 A |
| $2000 \mathrm{~A} ;$ <br> 1400 ac rms | 1 A | $1.5 \% \mathrm{rdg}+5$ digits | 5 A | 8 A | 8 A |

Crest Factor ( $50 / 60 \mathrm{~Hz}$ )

| Range | Crest Factor* |
| :--- | :--- |
| 40 A | 2 @ 33 A, 2.4 @ 27 A |
| 400 A | 2 @ 330 A, 2.4 @ 270 A |
| $2000 \mathrm{~A} ; 1400 \mathrm{ac} \mathrm{rms}$ | 2 @ 1000 A, 2.4 @ 833 A |

*Add 2 \% to error spec for CF > 2

Current measurement ac 100.1 Hz to $1 \mathbf{k H z}$

| Range | Resolution | Accuracy > 10 A | Trigger Level for <br> Inrush | Trigger Level <br> for Hz <br> Filter OFF | Trigger Level <br> $\mathbf{f o r ~ H z}$ <br> $\mathbf{F i l t e r ~ O N}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 40 A | 10 mA | $3.5 \% \mathrm{rdg}+15$ digits | 0.50 A | 2.50 A | 0.50 A |
| 400 A | 100 mA | $3.5 \% \mathrm{rdg}+5$ digits | 5.0 A | 2.5 A | 2.5 A |
| $2000 \mathrm{~A} ;$ <br> 1400 ac rms | 1 A | $3.5 \% \mathrm{rdg}+5$ digits | 5 A | 8 A | 8 A |

Voltage measurement (355 only) dc and ac $\mathbf{1 0} \mathbf{~ H z}$ to $\mathbf{1 0 0} \mathbf{~ H z}$
600 V and 1000 V ranges have $10 \%$ over range to 660 V and 1100 V respectively.

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

Voltage measurement ( $\mathbf{3 5 5}$ only) ac $\mathbf{1 0 0 . 1} \mathbf{~ H z}$ to $\mathbf{1 ~ k H z}$
600 V and 1000 V ranges have $10 \%$ over range to 660 V and 1100 V respectively.

| Range | Resolution | Accuracy | Trigger Level for Hz <br> Filter OFF | Trigger Level for Hz <br> Filter ON |
| :--- | :---: | :---: | :---: | :---: |
| 4 V | 1 mV | $3 \% \mathrm{rdg}+10$ digits | 0.050 V | 0.050 V |
| 40 V | 10 mV | $3 \% \mathrm{rdg}+5$ digits | 0.25 V | 0.25 V |
| 400 V | 100 mV | $3 \% \mathrm{rdg}+5$ digits | 6 V | 6 V |
| 600 V ac ms | 1 V | $3 \% \mathrm{rdg}+5$ digits | 6 V | 6 V |

Ohms measurement (355 only)

| Range | Resolution | Accuracy |
| :--- | :---: | :---: |
| $400 \Omega$ | $0.1 \Omega$ | $1.5 \%+5$ digits |
| $4 \mathrm{k} \Omega$ | $1 \Omega$ | $1.5 \%+5$ digits |
| $40 \mathrm{k} \Omega$ | $10 \Omega$ | $1.5 \%+5$ digits |
| $400 \mathrm{k} \Omega$ | $100 \Omega$ | $1.5 \%+5$ 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 | $0.1 \mathrm{~Hz}(15 \mathrm{~Hz}$ to 399.9 Hz$) ; 1 \mathrm{~Hz}(400 \mathrm{~Hz}$ to 1 kHz$)$ |
| Accuracy $-\mathbf{5 . 0 ~ H z}$ to 100 Hz | $0.2 \%+2$ counts |
| Accuracy -100.1 Hz to $1 \mathbf{~ k H z}$ | $0.5 \%+5$ 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 | $.814 \mathrm{~kg} \mathrm{(1.8} \mathrm{lb)}$ |
| Jaw size | $58 \mathrm{~mm} \mathrm{(2.28} \mathrm{in)}$ |
| Dimensions (LxWxD) | $300 \mathrm{~mm} \times 98 \mathrm{~mm} \times 52 \mathrm{~mm}(12 \mathrm{in} \times 3.75 \mathrm{in} \times 2 \mathrm{in})$ |
| Safety rating | IEC $61010-2-032,600 \mathrm{~V}$ CAT IV, 1000 V CAT III |

## Environmental specifications

| Operating temperature | $32^{\circ} \mathrm{F}$ to $+122{ }^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.+50^{\circ} \mathrm{C}\right)$ |
| :--- | :--- |
| Storage temperature | $-4{ }^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.+60^{\circ} \mathrm{C}\right)$ |
| Operating humidity | 0 to $95 \%$ (non-condensing) |
| Operating altitude | 2000 m |
| Storage altitude | $10,000 \mathrm{~m}$ |
| 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 <br> $61326: 1997 ~ 3 V / m, ~ p e r f o r m a n c e ~ c r i t e r i a ~ B, ~ E N 61325 ~$ |
| Temperature coefficients | Current: $0.1 \%$ of reading per ${ }^{\circ} \mathrm{C}$ outside $22^{\circ} \mathrm{C}$ to $24^{\circ} \mathrm{C}$ <br> Voltage: $0.1 \%$ of reading per ${ }^{\circ} \mathrm{C}$ outside $22^{\circ} \mathrm{C}$ to $24^{\circ} \mathrm{C}$ |

## 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


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