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FLUKE®

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 kΩ 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

1000 V CAT III
600 V CAT IV

N10140

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 ≤ 30 Ω
Off at ≥ 100 Ω

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

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