

TECHNICAL DATA

Fluke 376 FC True-RMS Clamp Meter with iFlex

**NEW YEAR
NEW GEAR 25**
3 DEC 2024 - 28 FEB 2025





Key features

- Measures AC/DC current with included iFlex current probe
- VFD low pass filter for accurate measurements of non-linear signals
- Remotely log, trend and monitor to pinpoint intermittent faults
- Inrush measurement to filter out noise and capture starting current

Product overview: Fluke 376 FC True-RMS Clamp Meter with iFlex

The Fluke 376 FC True-rms Clamp Meter with iFlex is the most advanced troubleshooting tool for industrial and commercial electricians. The 376 is part of the Fluke Connect family of wireless test tools that enable you to log, trend and monitor measurements while remaining safely away from the arc flash zone through Bluetooth connectivity.

Find the cause of difficult problems

The 376 FC clamp meter uses an integrated low-pass filter for accurate measurements of non-linear signals, such as adjustable speed drives, electronic ballasts and other non-linear loads. The clamp also uses proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it.

Measure:

- Voltage to 1000 V AC or DC
- Resistance to 60 kΩ with continuity detection
- Min, max, average, and inrush recording to capture variations automatically
- 500 mV DC measurement range to interface with other accessories
- 1000 μF capacitance measurement

Work safely and conveniently


The 376 FC clamp carries a CAT III 1000 V, CAT IV 600 V safety rating, designed to offer you the highest possible protection in a test tool.

The included iFlex flexible current probe provides easier access to large conductors in tight spaces. The flexible probe:

- Expands the measurement range to 2500 A AC
- Allows frequency measurement to 500 Hz with body jaw and iFlex

Specifications: Fluke 376 FC True-RMS Clamp Meter with iFlex

General Specifications	
AC Current via Jaw	
Range	999.9 A
Resolution	0.1 A
Accuracy	2% ±15 digits (10 Hz to 100 Hz)
	2.5% ±15 digits (100-500 Hz)
Crest Factor (50 Hz/60 Hz)	3 @ 500 A
	2.5 @ 600 A
	Add 2% for C.F. >2

AC Current via Flexible Current Probe		
Range	2500 A	
Resolution	0.1 A (u2264 600 A)	
	1 A (u2264 2500 A)	
Accuracy	3% u00b115 digits (5 u2013 500 Hz)	
Crest Factor (50/60Hz)	3.0 at 1100 A	
	2.5 at 1400 A	
	1.42 at 2500 A	
	Add 2% for C.F. > 2	
Position Sensitivity		
		
	i2500-10 Flex	i2500-18 Flex
A		
Distance from Optimum	0.5 in (12.7 mm)	1.4 in (35.6 mm)
Error	u00b110.5 %	u00b110.5 %
B		
Distance from Optimum	0.8 in (20.3 mm)	2.0 in (50.8 mm)
Error	u00b111.0 %	u00b111.0 %
C		
Distance from Optimum	1.4 in (35.6 mm)	2.5 in (63.5 mm)
Error	u00b112.0 %	u00b112.0 %
Measurement uncertainty assumes centralized primary conductor at optimum position, no exteal electrical or magnetic field, and within operating temperature range.		
DC Current		
Range	999.9 A	
Resolution	0.1 A	
Accuracy	2% u00b115 digits	
AC Voltage		
Range	1000 V	
Resolution	0.1 V (u2264600.0 V)	
	1 V (u22641000 V)	
Accuracy	1% u00b115 digits (20 Hz to 500 Hz)	
DC Voltage		
Range	1000 V	
Resolution	0.1 V (u2264600.0 V)	
	1 V (u22641000 V)	

Accuracy	1% \pm 15 digits
mV dc	
Range	500.0 mV
Resolution	0.1 mV
Accuracy	1% \pm 15 digits
Frequency via Jaw	
Range	5.0 Hz to 500.0 Hz
Resolution	0.1 Hz
Accuracy	0.5% \pm 15 digits
Trigger level	5 Hz to 10 Hz, \pm 26510 A
	10 Hz to 100 Hz, \pm 2655 A
	100 Hz to 500 Hz, \pm 26510 A
Frequency via Flexible Current Probe	
Range	5.0 Hz to 500.0 Hz
Resolution	0.1 Hz
Accuracy	0.5% \pm 15 digits
Trigger level	5 Hz to 20 Hz, \pm 26525 A
	20 Hz to 100 Hz, \pm 26520 A
	100 Hz to 500 Hz, \pm 26525 A
Resistance	
Range	60 μ A
Resolution	0.1 μ A (\pm 264600 μ A)
	1 μ A (\pm 2646000 μ A)
	10 μ A (\pm 26460 μ A)
Accuracy	1% \pm 15 digits
Capacitance	
Range	1000 μ F
Resolution	0.1 μ F (\pm 264 100 μ F)
	1 μ F (\pm 264 1000 μ F)
Accuracy	1% \pm 14 digits
Mechanical Specifications	
Maximum voltage between any terminal and earth ground	1000 V
Batteries	2 AA, NEDA 15A, IEC LR6
Operating temperature	-10 $^{\circ}$ C to +50 $^{\circ}$ C
Storage temperature	-40 $^{\circ}$ C to +60 $^{\circ}$ C

Operating humidity - non-condensing (< 100% RH)	20% RH (at 10 °C to 30 °C)
	47.5% RH (at 30 °C to 40 °C)
	44.5% RH (at 40 °C to 50 °C)
Operating altitude	2000 m
Storage altitude	12,000 m
Size (L x W x H)	249 x 85 x 45 mm
Weight	395 g
Jaw opening	34 mm
Flexible current probe diameter	7.5 mm
Flexible current probe cable length (head to electronics connector)	1.8 m
Safety	IEC 61010-1, Pollution Degree 2
	IEC 61010-2-032: CAT III 1000 V / CAT IV 600 V
	IEC 61010-2-033: CAT III 1000 V / CAT IV 600 V
IP rating	IEC 60529: IP30, non-operating
Radio Frequency Certification FCC ID	T68-FBLE IC:6627A-FBLE
Electromagnetic Compatibility (EMC)	
Intentional	IEC 61326-1: Portable, Electromagnetic Environment, IEC 61326-2-2
	CISPR 11: Group 1, Class A
	Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.
	Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purpose. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances. Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.
Korea (KCC)	Class A Equipment (Industrial Broadcasting & Communication Equipment)
	Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.
Temperature coefficients	Add 0.1 x specified accuracy for each degree C above 28 °C or below 18 °C

Ordering information



Fluke 376 FC with 18-inch iFlex

Fluke 376 FC True-RMS Clamp Meter

Includes:

- Fluke 376 FC True-RMS Clamp Meter
- 18-inch iFlex® Flexible Current Probe
- TPAK magnetic hanging strap
- TL75 Test Leads
- Two AA batteries (Installed)
- Soft carrying case
- Coated instruction card
- Safety information sheet

Optional accessories

Fluke TL223 SureGrip™ Electrical Test Lead Set

Fluke AC285 SureGrip™ Alligator Clips

Fluke i2500-18 iFlex® Flexible Current Probes

Fluke C37XT Protective EVA Hard Tool Case

Description

Includes 3 test lead accessories in an all-in-one set. Ideal starter kit for electrical applications.

SureGrip™ accessories are designed to improve steadiness in slippery hands.

The Fluke iFlex® flexible current probes expand the measurement range of the select Fluke meters to 2500 A AC while providing the ultimate measurement flexibility.

Durable EVA foam case and divider to safely carry most multimeters



Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect™ system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

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