TECHNICAL DATA

Fluke 377 FC, 378 FC Non-Contact Voltage True-rms AC/DC Clamp Meters with iFlex



MEASURE VOLTAGE AND CURRENT

With your clamp jaw

FASTER, SAFER TESTING

All without touching a live wire - using FieldSense™ technology

POWER QUALITY INDICATOR

Shows whether equipment or power line is faulty

COMPLETE 3-PHASE VOLTAGE AND CURRENT TESTS

in 3 quick steps

FLUKE CONNECT®

Voltage and current measurements with FieldSense™ technology

The Fluke 377 FC and 378 FC true-rms clamp meters use FieldSense™ technology to make testing faster and safer, all without touching a live conductor. You get accurate voltage and current measurements through the clamp jaw. Simply clip the black test lead to any electrical ground, put the clamp jaw around the conductor and see reliable, accurate voltage and current values on the display.

Power quality indicator shows whether a problem is in the equipment or the power line (378 FC only)

The 378 FC clamp meter includes a unique PQ function that senses power quality issues automatically. When making FieldSense measurements, the 378 FC will detect and display power quality issues, relating to current, voltage, power factor or any combination of the three. Now you can quickly determine if an upstream supply problem exists, or if there is a downstream equipment problem.



The 378 FC includes a power quality test that provides quick indication of whether an incoming power problem or an equipment problem exists.

Voltage and current measurements with FieldSense™ technology

No more hand-written notes or complicated math.

- Complete 3-phase voltage and current tests in 3 easy steps
- Full set of phase-to-ground and phase-to-phase values calculated
- Displayed on your smart phone and saved to the cloud via Fluke Connect software
- Phase rotation calculated and shown on the Fluke Connect software

Measure extremely high current with iFlex™ probe

Use the included iFlex flexible current probe to measure ac current as high as 2500 A. The iFlex probe provides access to large conductors in tight spaces.

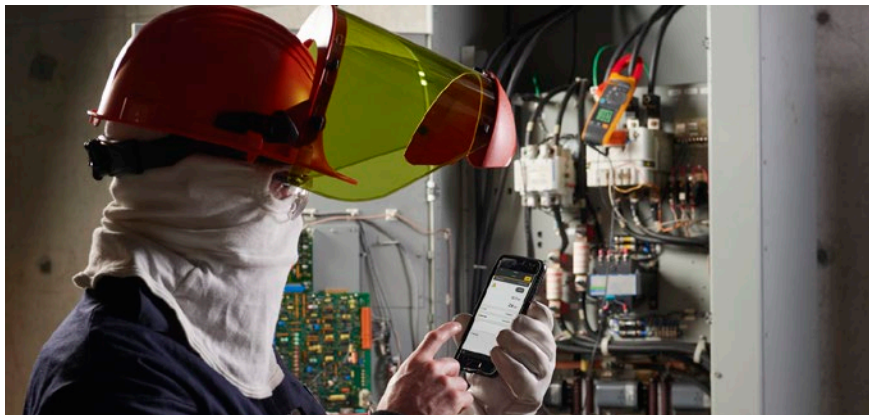
Easy to see, easy to use with included tools

Your job will get easier when you use the 377FC and 378 FC clamp meter:

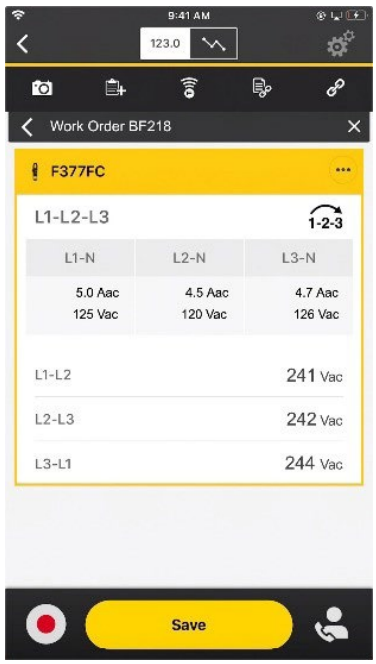
- The display turns green when a stable Field-Sense measurement is detected.
- Visual Continuity provides a bright green screen for easy detection of continuity in noisy work areas.
- The TPAK magnetic hanging kit, with 9 inch (23 cm) hanging strap, lets you hang your clamp wherever you need: to a steel cabinet door; around a pipe; on a nail or screw head.
- The included carrying case holds the clamp, iFlex probe, test leads and the included black grounding clip.

Record, analyze, share results with Fluke Connect™ software

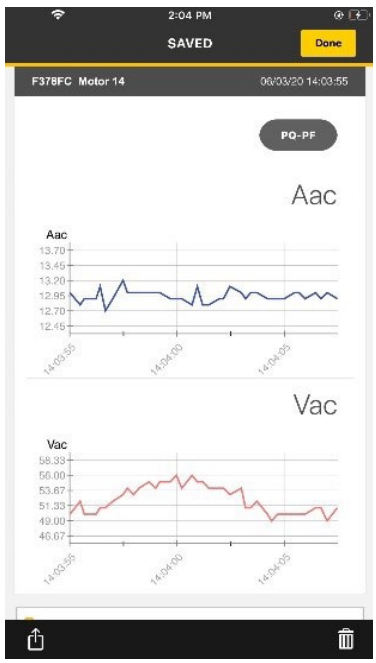
With Fluke Connect software you can remotely log, trend and monitor measurements to pinpoint intermittent faults. Fluke Connect also allows you to gather data as the basis for a preventive maintenance program.



Fluke Connect allows measurements to be sent to a smartphone for logging, collaboration and analysis.



Fluke Connect pulls all data related to three-phase measurements including phase rotation and presents the full set of data for analysis at a glance.



Data gathered by Fluke Connect can pinpoint elusive intermittent faults. Data collected over regular intervals can be used to spot small changes before they grow into major problems.

Specifications

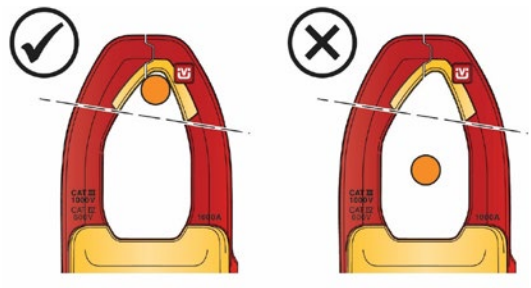
General specifications	
General Maximum voltage (between any terminal and earth ground)	1000 V
Battery	
Type	2 AA IEC LR6 alkaline
Life	200 hours
Display	Dual readout
Automatic Power Off	20 minutes
AC Current: Jaw	
Range	999.9 A
Resolution	0.1 A
Accuracy	2 % ± 5 digits (45 Hz to 66 Hz)
Crest Factor (50/60 Hz)	3 @ 500 A 2.5 @ 600 A 1.42 @ 1000 A Add 2 % for C.F. >2
AC Current: Flexible Current Probe	
Range	2500 A
Resolution	1 A (≤ 2500 A) 0.1 A (≤ 999.9 A)
Accuracy	3 % ±5 digits (5 Hz to 500 Hz)
DC Current	



Distance from Optimum	i2500-10 Flex	i2500-18 Flex	Error
A	0.5 in (12.7 mm)	1.4 in (35.6 mm)	± 0.5 %
B	0.8 in (20.3 mm)	2.0 in (50.8 mm)	± 1.0 %
C	1.4 in (35.6 mm)	2.5 in (63.5 mm)	± 2.0 %

Measurement uncertainty assumes centralized primary conductor at optimum position, no external electrical or magnetic field, and within operating temperature range.

Range	999.9 A
Resolution	0.1 A
Accuracy	2 % ±5 digits
AC Voltage: FieldSense	
Range	1000 V
Resolution	1 V (≤ 1000 V)
Accuracy	
≤ 4/0 AWG	3 % ±5 digits (45 Hz to 66 Hz)
≥ 4/0 AWG	5 % ±5 digits (45 Hz to 66 Hz)
AC Voltage: Test Leads	



Position wire as close as possible to jaw opening (see illustration).

Specifications (continued)

Range	600.0 V 1000 V
Resolution	0.1 V (≤ 600.0 V) 1 V (≤ 1000 V)
Accuracy	1 % ±5 digits (20 Hz to 500 Hz)
DC Voltage	
Range	600.0 V 1000 V
Resolution	0.1 V ≤ 600.0 V) 1 V (≤ 1000 V)
Accuracy	1 % ± 5 digits
mV dc	
Range	500.0 mV
Resolution	0.1 mV
Accuracy	1 % ± 5 digits
Amps Frequency: Jaw	
Range	45 Hz to 66 Hz
Resolution	0.1 Hz
Accuracy	0.5 % ± 5 digits
Trigger Level	5 Hz to 10 Hz, ≥ 10 A 10 Hz to 100 Hz, ≥ 5 A 100 Hz to 500 Hz, ≥ 10 A
Amps Frequency: Flexible Current Probe	
Range	5.0 Hz to 500.0 Hz
Resolution	0.1 Hz
Accuracy	0.5 % ±5 digits
Trigger Level	5 Hz to 20 Hz, ≥ 25 A 20 Hz to 100 Hz, ≥ 20 A 100 Hz to 500 Hz, ≥ 25 A
Resistance	
Range	60.00 kΩ 6000 Ω 600.0 Ω
Resolution	0.1 Ω (≤ 600.0 Ω) 1 Ω (≤ 6000 Ω) 10 Ω (≤ 60.00 kΩ)
Accuracy	1 % ±5 digits
Capacitance	
Range	1000 µF
Resolution	0.1 µF (≤ 100.0 µF) 1 F (≤ 1000 µF)
Accuracy	1 % ±4 digits
Mechanical	
Size (L x W x H)	274 mm x 86 mm x 47 mm
Weight (with Batteries)	463 g
Jaw Opening	34 mm
Flexible Current Probe Diameter	7.5 mm
Flexible Current Probe Cable Length (head to electronics connector)	1.8 m
Rogowski Coil Length	450 mm

Environmental	
Operating Temperature	–10 °C to 50 °C
Storage Temperature	–40 °C to 60 °C
Operating Humidity (without condensation)	Non condensing (<10 °C) ≤ 90 % RH (10 °C to 30 °C) ≤ 75 % RH (30 °C to 40 °C) ≤ 45 % RH (40 °C to 50 °C)
Temperature Coefficients	Add 0.1 x specified accuracy for each degree C >28 °C or <18 °C
Ingress Protection	IEC 60529: IP30 (jaw closed)
Operating Altitude	2000 m
Storage Altitude	12 000 m
Electromagnetic Compatibility (EMC)	
International	IEC 61326-1: Portable Electromagnetic Environment IEC 61326-2-2, CISPR 11: Group 1, Class B 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 B: Equipment is suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes. 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 Broadcast & Communications 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.
Safety	
General	IEC 61010-1: Pollution degree 2
Measurement	IEC 61010-2-032: CAT III 1000 V / CAT IV 600 V IEC 61010-2-033: CAT III 1000 V / CAT IV 600 V
Current Clamp for Leakage Current Measurements	IEC 61557-13: Class 2, ≤ 30 A/m
Wireless Radio	
Radio Frequency Certification	FCC ID: T68-FBLE IC:6627A-FBLE
Frequency Range	2405 MHz to 2480 MHz
Output Power	<100 mW
Radio Frequency Data	Go to www.fluke.com and search for "Radio Frequency Data for Class A" (PN 4333628) SIMPLIFIED EU DECLARATION OF CONFORMITY Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with Directive 2014/53/EU. The full text of the EU declaration is available at the following internet address: www.fluke.com/declaration-of-conformity

Ordering information

FLUKE-378 FC

Included

Fluke 378 FC Non-Contact Voltage True-rms AC/DC Clamp Meter
TL224 Test Leads
TP175 TwistGuard™ Test Probes
AC285 black grounding clip (1 only)
i2500-18 iFlex® Flexible Current Probe 18 inch (48 cm)
TPAK ToolPak™ Magnetic Meter Hanger
Premium carrying case
Quick reference guide

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AC285 black grounding clip (1 only)
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Visit www.fluke.com to get complete details on these products or ask your local Fluke sales representative.



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.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Access baseline, historical and current measurements by asset.
- Share your measurement data using ShareLive™ video calls and emails.
- The Fluke 377 FC and Fluke 378 FC clamp meters are part of a growing system of connected test tools and equipment maintenance software. Visit the Fluke website to learn more about the Fluke Connect system.

Find out more at **fluke.com**

Download on the App Store

ANDROID APP ON Google play



All trademarks are the property of their respective owners. WiFi or cellular service required to share data. Smartphone, wireless service and data plan not included with purchase. First 5GB of storage is free.

Smartphone wireless service and data plan not included with purchase. Fluke Connect is not available in all countries.

Fluke. *Keeping your world up and running.®*

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