

# Fluke 1587 and 1577 Insulation Multimeters



Fluke 1587

## Two powerful tools in one

The Fluke 1587 and 1577 Insulation Multimeters combine a digital 1 kV insulation tester with a full-featured, true-rms digital multimeter in a single compact, handheld unit, which provides maximum versatility for both troubleshooting and preventive maintenance.

- Insulation test (1587: 0.01 MΩ to 2 GΩ) (1577: 0.1 MΩ to 600 MΩ)
- Insulation test voltages (1587: 50 V, 100 V, 250 V, 500 V, 1000 V), (1577: 500 V, 1000 V) for many applications
- Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- Filter for motor drive measurements (1587 only)
- AC/DC voltage, dc millivolts, ac/dc milliamps, resistance (Ω), and continuity
- Capacitance, diode test, temperature, Min/Max, and frequency (Hz) (1587 only)
- Auto power off to save battery power
- Large display with backlight and large digits
- Included accessories: Remote probe, test leads and probes, alligator clips, (Type K thermocouple, 1587 only)
- Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
- Rugged, utility hard case allows you to bring everything you need for the job



Fluke 1577



## Specifications

Features	1587	1577	1507	1503
Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V	•	–	•	–
Insulation test voltages 500 V, 1000 V	–	•	–	•
Insulation resistance	0.01 MΩ to 2.0 GΩ	0.1 MΩ to 600 MΩ	0.01 MΩ to 10 GΩ	0.1 MΩ to 2 GΩ
Auto-discharge of capacitive voltage	•	•	•	•
Insulation test smoothing reading	•	–	–	–
Frequency	•	–	–	–
Capacitance	•	–	–	–
Diode test	•	–	–	–
Temperature	•	–	–	–
Min/Max	•	–	–	–
Low-pass filter (for work on VSDs)	•	–	–	–
AC/DC voltage	•	•	–	–
DC millivolts	•	•	–	–
AC/DC milliamps	•	•	–	–
Resistance	0.1 Ω to 50 MΩ	0.1 Ω to 50 MΩ	0.1 Ω to 20.00 KΩ	0.1 Ω to 20.00 KΩ
Continuity	•	•	•	•
Warranty	Three-year	Three-year	One-year	One-year
Remote probe, test leads, alligator clips	•	•	•	•
Type K thermocouple	•	–	–	–
Rugged, utility hard case	•	•	•	•
Auto power off	•	•	•	•
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## Ordering information

Included accessories	Models
Remote probe, test leads, alligator clips, Type K thermocouple (1587 only), hard case and users manual.	FLUKE-1577 Insulation Multimeter
	FLUKE-1587 Insulation Multimeter
	FLUKE-1587/ET Advanced Electrical Troubleshooting Kit
	FLUKE-1587/MDT Advanced Motor and Drive Troubleshooting Kit

## Recommended accessories



**TPAK**  
Magnetic Meter Hanger  
See page 71



**i400**  
AC Current Clamp  
See page 69



**C100**  
Universal Carrying Case  
See page 63



**TL27**  
Heavy Duty Test Leads

## Recommended kits

### Get more value and productivity

Establishing a preventive maintenance program is becoming critical to maintaining the uptime of electrical equipment and can significantly reduce both planned and unplanned downtime. Unplanned downtime costs are difficult to calculate, but are often significant. For some industries, it can represent 1 % to 3 % of revenue (potentially 30 % to 40 % of profits) annually.

These kits can help you be proactive and efficient with your maintenance and can save you up to 10 % off the individual price of the tools.



### Fluke 1587/ET Advanced Electrical Troubleshooting Kit includes:

- Fluke 1587 Insulation Multimeter
- Fluke i400 Current Clamp
- Fluke 62 MAX+ Infrared Thermometer



### Fluke 1587/MDT Advanced Motor and Drive Troubleshooting Kit includes:

- Fluke 1587 Insulation Multimeter
- Fluke i400 Current Clamp
- Fluke 9040 Phase Rotation Indicator

Check price and availability at  
[www.fluke.com/wtb](http://www.fluke.com/wtb)

# Fluke current clamps

For use with multimeters, portable oscilloscopes and power quality analyzers



## AC only models



i3000s Flex-24 (24 in dia), i3000s Flex-36 (36 in dia), i6000s Flex-24 (24 in dia) i6000s Flex-36 (36 in dia)

## AC current clamp specifications

	i200	i200s	i400	i400s	i800	i1000s	i3000s	i2000 Flex	i3000s Flex	i6000s
AC current range	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A	1 A to 800 A	0.2 A to 1000 A	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	60 A to 6000 A
Accuracy	≤ 3% + 0.5 A 48 to 65 Hz	≤ 1% + 0.5 A 48 Hz to 65 Hz	2% + 0.06 A 45 Hz to 400 Hz	.5 A to 40 A, 2% + .015 A, 5 A to 400 A, 2% + .04 A, 45 to 400 Hz	± 3% + .01 A, 10 A to 200 A ± 2%, 200 A to 800 A ± 1%	0.2 to 10 A: 3% + 0.1 A, 10 A to 100 A: 2% + 0.5 A, 100 A to 1000 A: 1% + 1 A 48 to 65 Hz	1 to 30 A: 2% + 0.1 A, 1 to 300 A: 2% + 0.5 A, 1 to 3000 A: 2% + 2 A 48 to 65 Hz	± 1% of range 45 to 65 Hz Ranges: 20 A, 200 A, 2000 A	± 1% of range, 45 Hz to 65 Hz Ranges: 30 A, 300 A, 3000 A	± 1% of range 45 to 65 Hz
Bandwidth (-3 dB)	40 Hz to 40 kHz	40 Hz to 40 kHz	5 kHz to 20 kHz	5 Hz to 10 kHz	30 Hz to 10 kHz (typical)	5 Hz to 100 kHz	10 Hz to 100 kHz	10 Hz to 20 kHz	10 Hz to 50 kHz	10 Hz to 50 kHz, (-3 dB)
Maximum conductor diameter	20 mm (0.8 in)	20 mm (0.8 in)	32 mm (1.25 in)	32 mm (1.25 in)	54 mm (2.13 in)	54 mm (2.13 in)	64 x 100 mm (2.52 x 3.94 in)	177 mm (7 in)	177 mm (7 in) or 265 mm (10.4 in)	193 mm (7.6 in) or 289 mm (11.4 in)
Maximum conductor size	300 MCM	300 MCM	750 MCM	750 MCM	2-500 MCM or 1-1000 MCM	2-500 MCM or 1-1000 MCM	64 mm (2.52 in) circumference	610 mm (24 in) circumference	610 mm or 915 mm circumference	610 mm (24 in) or 915mm (36 in)
Output levels	1 mA/A	10 mV/A 100 mV/A	1 mA/A	10 mV/A 1 mV/A	1 mA/A	1 mV/A 10 mV/A 100 mV/A	10 mV/A 1 mV/A 0.1 mV/A	100 mV/A 10 mV/A 1 mV/A	100 mV/A 10 mV/A 1 mV/A	50 mV/A 5 mV/A 0.5 mV/A
Output cable	1.5 m shrouded banana plugs	2 m to BNC termination	1.5 m shrouded banana plugs	2.5 m to BNC termination	1.6 m shrouded banana plugs	1.6 m to BNC termination	2.1 m to BNC termination	2 m with double shrouded banana plugs	2.1 m to BNC termination	2 m to BNC, 4 mm plug adapter supplied
Warranty	One-year	One-year	One-year	One-year	One-year	One-year	One-year	One-year	One-year	One-year
Safety rating	CAT III 600 V	CAT III 600 V	CAT III 1000 V CAT IV 600 V	CAT III 1000 V CAT IV 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V

## AC current clamp selection guide

Meter	i200	i200s	i400	i400s	i800	i1000s	i3000s	i2000 Flex <sup>1</sup>	i3000s Flex	i6000s
114/116		1 A to 200 A		0.6 A to 400 A*		0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
115/117	60 A to 200 A	1 A to 200 A	60 A to 400 A	0.6 A to 400 A*	60 A to 800 A	0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
233	60 A to 200 A	1 A to 200 A	60 A to 400 A	0.6 A to 400 A*	60 A to 800 A	0.6 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
27II	2 A to 200 A	1 A to 200 A	2 A to 400 A	1 A to 400 A*	2 A to 800 A	0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
28II	1.8 A to 200 A	1 A to 200 A	1.8 A to 400 A	1.8 A to 400 A*	1.8 A to 800 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
77 IV		1 A to 200 A		1 A to 400 A*		0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
175/177/179	3 A to 200 A	1 A to 200 A	3 A to 400 A	1 A to 400 A*	3 A to 800 A	0.3 A to 1000 A*	3 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
1577/1587 Insulation Meter 83V/88V	3 A to 200 A	1 A to 200 A	3 A to 400 A	3 A to 400 A*	3 A to 400 A	0.3 A to 1000 A*	3 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
87V	2 A to 200 A	1 A to 200 A	2 A to 400 A	2 A to 400 A*	2 A to 800 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
287/289	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A*	1 A to 800 A	0.2 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
43B Power Quality Analyzer		1 A to 200 A		0.35 A to 400 A		0.1 A to 1000 A	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
434/435 Power Quality Analyzer		1 A to 200 A		1.2 A to 400 A		0.3 A to 1000 A	1.2 A to 3000 A	Best to use i430Flex	Best to use i430Flex-TF	
120 Series ScopeMeters		1 A to 200 A		2.5 A to 400 A		0.25 A to 1000 A	2.5 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
190 Series Scopemeters		1 A to 200 A		1 A to 400 A		0.1 A to 1000 A	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
8808A	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A*	1 A to 800 A	0.1 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
8845A/8846A	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A*	1 A to 800 A	0.2 A to 1000 A*	1 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF
787/789 Process Meters	50 A to 200 A	1 A to 200 A	50 A to 400 A	2 A to 400 A*	50 A to 440 A	0.2 A to 1000 A*	2 A to 3000 A	2 A to 2000 A	3 A to 3000 A	Best to use i430Flex-TF

\* Requires PM9081/001 Adapters.

<sup>1</sup> Three range version.

<sup>2</sup> Current and watt readings will be multiples of 10 higher or lower than actual on some ranges.