

# 1773/1775/1777

## 3 Phase Power Quality Analyzer

### Safety Information



2-Year Limited Warranty.  
See the Users Manual for the full warranty.

Go to [www.fluke.com](http://www.fluke.com) to register your Product, read the User Manual, and find more information.

A **Warning** identifies conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

#### **Warning**

To prevent possible electrical shock, fire, or personal injury:

- Read all safety information before you use the Product.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Use Product-approved measurement category (CAT), voltage, and amperage rated accessories (probes, test leads, and adapters) for all measurements.



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- Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.
- Do not apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- Measure a known voltage first to make sure that the Product operates correctly.
- Do not use a current measurement as an indication that a circuit is safe to touch. A voltage measurement is necessary to know if a circuit is hazardous.
- Do not use the Product if it is altered or damaged.
- Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.
- Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.
- Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.
- Keep fingers behind the finger guards on the probes.
- Have an approved technician repair the Product.
- Do not work alone.
- De-energize the circuit or wear personal protective equipment in compliance with local requirements before you apply or remove the flexible current probe.
- Use Product-approved measurement category (CAT) antenna cables when the Product is installed in environment where wires or exposed metal parts provide access to hazardous live voltage, such as, in cabinets.
- Do not use Ethernet or USB accessories when the Product is installed in environment where wires or exposed metal parts provide access to hazardous live voltage, such as, in cabinets.
- Do not touch the metal parts of one test lead when the other is still connected to hazardous voltage.
- Use this Product indoors only.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- All protection caps need to be attached or the ingress protection derates to IP40.
- Keep the seal on the battery door and protection caps clean.
- The battery door must be closed and locked before you operate the Product.
- Disconnect the product from mains and measurement circuits before you open the battery door or install/ remove the radio modules.
- Do not short the battery terminals together.

- Do not disassemble or crush battery cells and battery packs.
- Do not put battery cells and battery packs near heat or fire. Do not put in sunlight.

**⚠ Caution**

Replace the rechargeable battery after 5 years of moderate use or 2 years of heavy use. Moderate use is defined as recharged twice a week. Heavy use is defined as discharged to cutoff and recharged daily.

## **Safety Specifications**

### **3 Phase Power Quality Analyzer**

Operating Temperature	
with battery <sup>[1]</sup> .....	-10 °C to 50 °C
Storage Temperature	
with battery <sup>[1]</sup> .....	-20 °C to 60 °C
no battery .....	-20 °C to 60 °C
Charge Temperature	
with battery <sup>[1]</sup> .....	up to 50 °C
Operating Humidity .....	IEC60721-3-3: 3K5, modified:
	-10 °C to 30 °C: ≤95 %, no condensation or ice
	35 °C: 70 %
	40 °C: 55 %
	50 °C: 35 %
Altitude	
Operating .....	2000 m
Storage .....	12 000 m
Battery <sup>[1]</sup> .....	Li-ion 3.65 V, 14.6 Whr, customer replaceable
Storage Temperature .....	-40 °C to 85 °C

[1] Fluke BP1770 is an MP 174565 xtd (P/N 70515P) battery manufactured by Saft S.A. The thickness can vary between 18.6 mm and 22 mm with the state of charge, age, and temperature. This is normal. A thickness of 19.3 mm at room temperature indicates an aged battery and you should consider a replacement.

## Safety

General.....	IEC 61010-1: Pollution Degree 2
Power Supply .....	Overvoltage Category IV 600 V
Mains Adapter MA-C8.....	Overvoltage Category II 300 V
Measurement .....	IEC 61010-2-030: CAT IV 600 V, CAT III 1000 V
Altitudes between 2000 m and 4000 m, derate to:	
Power Supply .....	Category IV 300 V
Mains Adapter MA-C8.....	Category II 150 V
Measurement .....	CAT IV 300 V, CAT III 600 V, CAT II 1000 V

## Electromagnetic Compatibility (EMC)

International.....	IEC 61326-1: Industrial CISPR 11: Group 1, Class A
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*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 which supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments, due to conducted and radiated disturbances.*

*Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.*

*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)
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*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 C.
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## Wireless Radio with WiFi/BLE Module (depends on region)

### 2.4 GHz band

Frequency Range.....	2400 MHz to 2483.5 MHz
Output Power .....	<100 mW









### 5 GHz band 1

Frequency Range.....	5150 MHz to 5725 MHz
Output Power .....	<200 mW

### 5 GHz band 2

Frequency Range.....	5725 MHz to 5875 MHz
Output Power .....	<25 mW

## Symbols

Symbol	Description
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Consult user documentation.
	Double Insulated
	Earth
	Battery
<b>CAT II</b>	Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.
<b>CAT III</b>	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
<b>CAT IV</b>	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
<b>CE</b>	Conforms to European Union directives.
 <b>Li-ion</b>	This product contains a Lithium-ion battery. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler per local regulations. Contact your authorized Fluke Service Center for recycling information.
	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.