TECHNICAL DATA

Fluke 393 FC Solar Clamp Meter CAT III 1500 V

Key features

- Measure safely with CAT III 1500 V rated clamp meter
- Thin jaw for access to cables in crowded combiner boxes
- Sturdy IP54 rated for outdoor use and solar installation
- Work efficiently with dc power measurement, audio polarity and visual continuity

Product overview: Fluke 393 FC Solar Clamp Meter CAT III 1500 V

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TOOL INNOVATION AWARDS WINNER

The Fluke 393 FC CAT III 1500 V True-rms Solar Clamp Meter with iFlex is designed for solar photovoltaic (PV) installation technicians and maintenance professionals who work in high voltage DC environments: PV arrays, wind power, electric railways, data centers battery banks for uninterruptible power supplies. The clamp meter will measure up to 1500 V DC and 1000 V AC with test leads, and up to 999.9 A DC or AC through the clamp jaw. The included iFlex

flexible current probe extends AC current measurements up to 2500 A. The 393 has a thin jaw, giving you access to cables in crowded combiner boxes. Plus, the test leads are designed with your work in mind, and are also rated to CAT III 1500 V DC.

Key functions of the solar clamp meter:

- IP54 rated, ideal for work outdoors including PV panel testing
- DC power measurement, showing readings in kVA
- Audio Polarity indicator helps prevent accidental miswires
- Visual Continuity provides a bright green light in the display, ideal when working in dark and noisy environments
- Logging and reporting of test results via Fluke Connect software
- When measuring ac current the included iFlex flexible current probe gives you unparalleled access to cable is tight spaces. The iFlex probe can be twisted through extremely small spaces and provide accurate current measurements.

The world's first CAT III 1500 V true-RMS solar clamp meter

Specifications: Fluke 393 FC Solar Clamp Meter CAT III 1500 V

Specifications:			
General			
Maximum voltage between any Terminal and Earth Ground			
AC	1000 V		
DC	1500 V		
Baeries	2 AA IEC LR6 alkaline		
Display	Dual display with backlight		
Automatic Power Off	20 minutes		
Electrical			
Accuracy			
Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, relative humidity at 0 % to 75 %. Accuracy specifications take the form of: ±([% of Reading] + [Number of Least Significant Digits]).			
Temperature Coefficients	Add 0.1 x specified accuracy for each °C > 28 °C or < 18 °C		
AC Current: Jaw			
Range	999.9 A		
Resolution	0.1 A		
Accuracy	2 % + 5 digits (10 Hz to 100 Hz)		
	2.5 % + 5 digits (100 Hz to 500 Hz)		
Crest Factor (50/60 Hz)	2.5 @600.0 A		
	3.0 @500.0 A		
	1.42 @999.9 A		
	Add 2 % for C.F. >2		
AC Current: Flexible Current Probe			
Range	999.9 A		
	2500 A		
Resolution	0.1 A (□999.9 A)		

	1 A (□2500 A)		
Accuracy	3 % RD + 5 digits (10 Hz to 500 Hz)		
Crest Factor (50/60Hz)	2.5 @1400 A		
	3.0 @1100 A		
	1.42@2500 A		
	Add 2 % for C.F. >2		
Position Sensitivity			

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 cealized 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 % RD + 5 digits[1]		
	[1] When using the ZERO (B) function to compensate for offsets.		
AC Voltage			
Range	600.0 V		
	1000 V		
Resolution	0.1 V (□600.0 V)		
	1 V (□1000 V)		
Accuracy	1 % RD + 5 digits (20 Hz to 500 Hz)		
DC Voltage			
Range	600.0 V		
	1500 V		
Resolution	0.1 V (□600.0 V)		
	1 V (□1500 V)		
Accuracy	1 % RD + 5 digits		
mV dc			
Range	500.0 mV		
Resolution	0.1 mV		
Accuracy	1 % RD + 5 digits		
Amps Frequency: Jaw			
Range	5.0 Hz to 500.0 Hz		
Resolution	0.1 Hz		
Accuracy	0.5 % RD + 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 % RD + 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		
Voltage Frequency			
Range	5.0 Hz to 500.0 Hz		
Resolution	0.1 Hz		
Accuracy	0.5 % RD + 5 digits		
Trigger Level	5 Hz to 20 Hz, □5 V		
	20 Hz to 100 Hz, □5 V		
	100 Hz to 500 Hz, □10 V		
DC Power			
Range	600.0 kVA (600.0 V dc range)		
	1500 kVA (1500 V dc range)		
Resolution	0.1 kVA		
	1 kVA		
Accuracy	2 % RD + 2.0 kVA		
	2 % RD + 20 kVA		
Resistance			
Range	600.0 Ω		
	6000 Ω		
	60.00 kΩ		
Resolution	0.1 Ω (□600.0 Ω)		
	1 Ω (□6000 Ω)		
	0.01 kΩ (□60.00 kΩ)		
Accuracy	1 % RD + 5 digits		
Capacitance			
Range	100.0 µF		
	1000 µF		
Resolution	0.1 µF (□100.0 µF)		
	1 µF (□1000 µF)		
Accuracy	1 % RD + 5 digits		
Inrush Trigger Level	5 A		
Mechanical			
Size (L x W x H)	281 mm x 84 mm x 49 mm		
Weight (with baeries)	520 g		
Jaw Opening	34 mm		
Flexible Current Probe Diameter	7.5 mm		
Flexible Current Probe Cable Length			
(head to electronics connector)	1.8 m		
Environmental			
Operating Temperature	-10 °C to 50 °C		
Storage Temperature	-40 °C to 60 °C		
Operating Humidity	Non condensing (<10°C)		
	□90 % RH (at 10 °C to 30 °C)		

	□75 % RH (at 30 °C to 40 °C)		
	□45 % RH (at 40 °C to 50 °C)		
Operating Altitude	2000 m		
Storage Altitude	12 000 m		
Ingress Protection (IP) Rating	IEC 60529: IP54 non-operating		
Electromagnetic Compatibility (EMC)			
Inteational	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 inteal 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 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.			
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 1500 V / CAT IV 600 V		
	IEC 61010-2-033: CAT III 1500 V / CAT IV 600 V		
Wireless Radio			
Radio frequency certification	FCC ID: T68-FBLE, IC: 6627A-FBLE		
Wireless Radio Frequency Range	2400 MHz to 2483.5 MHz		
Output Power	<100 mW		
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 Inteet address:			
www.fluke.com/en-us/declaration-of-conformity			

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