ELLIOTT ELECTRIC SUPPLY
We Deliver...Lower Cost, Quality Products, & Personal Service
2310 N. Stallings Dr.
Nacogdoches, TX 75964-0
Phone: 9365697941
Fax: 9365604685



117 ELECTRICIANS TRUE RMS MULTIMETER

FLUKE ELECTRONICS

Catalog Number	117
Manufacturer	FLUKE ELECTRONICS
Description	True RMS Digital Multimeter, LCD Display, 9 V Alkaline Battery, 400 h Battery Life, 3.31 in Length, 1.82 in Width, 6.57 in Height, 5 Hz to 9999 Hz, CAT III Safety Category Level
Weight per unit	1.7 (lbs/each)
Product Category	Test Equipment - Multimeters

Features

Voltage Rating	600 V

Descriptions

Description	ELECTRICIANS TRUE RMS MULTIMETER
Long Description	Fluke 117 Digital Multimeter: The choice for commercial applications. Designed by electricians. Engineered by Fluke. The compact Fluke 117 true RMS digital multimeter is optimized to help you keep commercial buildings, hospitals and schools running right. The advanced features of the Fluke 117 help you get the job done, quickly and safely. Integrated non-contact voltage detection helps you identify energized circuits. The AutoV/LoZ function prevents false readings caused by ghost voltage. The Fluke 117 del
Product Type	Electricians True RMS Ukntim
Extra Long Description	FLK FLUKE-117 ELECTRICIANS TRUE RMS

Manufacturer Information

Brand	FLUKE
GTIN	00095969324205
Manufacturers Part Number	FLUKE-117
UPC	883775

Taxonomies, Classifications, and Categories

Category Description	TEST EQUIPMENT, TESTERS AND MULTIMETERS

Packaging

Carton	5
Weight Per Each	1.7 (lbs/each)

Uses, Certifications, and Standards

Enclosure	Hard plastic
Frequency Rating	5-50

DETAILED SPECIFICATIONS

Fluke 114, 115, 116 and 117 Digital Multimeters

Accuracy is specified for 1 year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity of 0 % to 90 %.

General specifications	
Maximum voltage (between any terminal and earth ground)	600 V rms
Safety	IEC 61010-1, Pollution Degree 2 IEC 61010-2-033 CAT III 600 V, 10 A EMC IEC 61326-1: Portable
Fuse for A input (115, 117 only)	11 A, 1000 V, IR 17 kA (Fluke PN 803293)
Display	Digital: 6,000 counts, updates 4/sec; Bar Graph: 33 segments, updates 32/sec
Temperature	
Operating	-10 °C to +50 °C
Storage	-40 °C to +60 °C
Humidity	0 % to 90 % to 35 °C; 75 % to 40 °C; 45 % to 50 °C
Temperature coefficient	0.1 x (specified accuracy/°C) (< 18 °C or > 28 °C)
Operating altitude	2,000 meters
Battery	9 Volt Alkaline (IEC 6LR61)
Battery life	400 hours typical, without backlight
Certifications	CE, CSA, RCM
IP rating (dust and water protection)	IP42

Accuracy specifications (all models)

Function	Range	Resolution	Accuracy ± ([% of Reading]+ [Counts])		Model
DC millivolts	600.0 mV	0.1 mV	0.5 % + 2		114, 115, 116, 117
DC volts	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	0.5 % + 2		114, 115, 116, 117
			DC, 45 Hz to 500 Hz	**500 Hz to 1 kHz**	
Auto-V LoZ[1] true-rms (114, 116, 117 only)	600.0 V	0.1 V	2.0 % + 3	4.0 % + 3	114, 116, 117
			45 Hz to 500 Hz	**500 Hz to 1 kHz**	
AC millivolts[1] true-rms	600.0 V	0.1 V	1.0 % + 3	2.0 % + 3	114, 115, 116, 117
AC volts[1] true-rms	6.000 V 60.00 V 600.0 V	0.001 V 0.01 V 0.1 V	1.0 % + 3	2.0 % + 3	114, 115, 116, 117
Continuity (115, 116 only)	600 Ω	1 Ω	Beeper on < 20 Ω, off > 250 Ω; detects opens or shorts of 500 µs or longer		114, 115, 116, 117
Ohms	600.0 Ω 6.000 kΩ 60.00 kΩ 600.0 kΩ 6.000 MΩ 40.00 MΩ	0.1 Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.001 MΩ 0.01 MΩ	0.9 % + 2 0.9 % + 1 0.9 % + 1 0.9 % + 1 0.9 % + 1 5.0 % + 2		114, 115, 116, 117
Diode test	2.000 V	0.001 V	0.9 % + 2		115, 116, 117
Capacitance (115, 116, 117 only)	1000 nF 10.00 µF 100.0 µF 9999 µF -	1 nF 0.01 µF 0.1 µF 1 µF -	1.9 % + 2 1.9 % + 2 1.9 % + 2 100 µF to 1000 µF: 1.9 % + 2 > 1000 µF: 5 % + 20		115, 116, 117

1 All ac ranges except Auto-V LoZ are specified from 1 % to 100 % of range. Auto-V LoZ is specified from 0.0 V. Because inputs below 1 % of range are not specified, it is normal for this and other true-rms meters to display non-zero readings when the test leads are disconnected from a circuit or are shorted together. For volts, crest factor of ≤ 3 at 4000 counts, decreasing linearly to 1.5 at full scale. For amps, crest factor of ≤ 3. AC volts is ac-coupled. Auto-V LoZ, ac mV, and ac amps are dc-coupled.

Accuracy specifications (all models)

Function	Range	Resolution	Accuracy ± ([% of Reading]+ [Counts])	Model
LoZ capacitance (power-up option) (114, 116, 117 only)	1 nF to 500 µF		10 % + 2 typical	115, 116, 117
Temperature – K-Type thermocouple (116 only)	-40 °C to 400 °C -40 °F to 752 °F	0.1 °C 0.2 °F	1 % + 10[2] 1 % + 18[2]	116
AC amps true-rms[1] (45 Hz to 500 Hz) (115, 117 only)	6.000 A 10.00 A 20 A overload for 30 seconds maximum	0.001 A 0.01 A	1.5 % + 3	115, 117
AC µAmps true-rms[1] (45 Hz to 1 kHz) (116 only)	600.0 µA	0.1 µA	1.5 % + 3 (2.5 % + 3 > 500 Hz)	116
DC amps (115, 117 only)	6.000 A 10.00 A 20 A overload for 30 seconds maximum	0.001 A 0.01 A	1.0 % + 3	115, 117
DC µAmps true-rms (116 only)	600.0 µA	0.1 µA	1.0 % + 2	116
Hz (V or A input)[2] (Hz A 115, 117 only)	99.99 Hz 999.9 Hz 9.999 kHz 50.00 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz	0.1 % + 2	115, 117
Hz (V input)[3] (115, 116, 117 only)	99.99 Hz 999.9 Hz 9.999 kHz 50.00 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz	0.1 % + 2	116

1 All ac ranges except Auto-V LoZ are specified from 1 % to 100 % of range. Auto-V LoZ is specified from 0.0 V. Because inputs below 1 % of range are not specified, it is normal for this and other true-rms meters to display non-zero readings when the test leads are disconnected from a circuit or are shorted together. For volts, crest factor of ≤ 3 at 4000 counts, decreasing linearly to 1.5 at full scale. For amps, crest factor of ≤ 3. AC volts is ac-coupled. Auto-V LoZ, ac mV, and ac amps are dc-coupled.
2 AC Volts Hz is ac-coupled and specified from 5 Hz to 50 kHz. AC Amps Hz is dc-coupled and specified from 45 Hz to 5 kHz. Amps input burden voltage (typical): 6 A input 2 mV/A, 10 A input 37 mV/A.
3 Frequency is ac-coupled, 45 Hz to 50 kHz.

Frequency counter sensitivity (models 115, 116, 117)

Input range		Typical sensitivity (rms sine wave)			
		5 Hz to 45 Hz	45 Hz to 5 kHz	5 kHz to 10 kHz	10 kHz to 50 kHz
Volts AC	V 60 V 600 V	0.2 V 2 V 20 V	0.2 V to 0.3 V 2 V to 3 V 20 V to 30 V	0.3 V to 0.4 V 3 V to 4 V 30 V to 40 V	0.4 V to 1.0 V 4 V to 10 V 40 V to 100 V
AC Amps (115, 117 only)	6 A 10 A	N/A N/A	0.4 A 0.5 A	N/A N/A	N/A N/A

Input characteristics (all models)

Function	Input impedance (nominal)	Common mode rejection ratio (1 kΩ unbalanced)		Normal mode rejection
Volts AC	> 5 MΩ < 100 pF	> 60 dB at dc, 50 or 60 Hz		
Volts DC	> 10 MΩ < 100 pF	> 100 dB at dc, 50 or 60 Hz		> 60 dB at 50 or 60 Hz
Auto-V LoZ (114, 116, 117 only)	~3 kΩ < 500 pF	> 60 dB at dc, 50 or 60 Hz		
	Open circuit test voltage	**Full scale voltage**		**Short circuit current**
Ohms	< 2.7 V dc	**To 6.0 MΩ**	**40 MΩ**	< 350 µA
		< 0.7 V dc	< 0.9 V dc	
Diode test (115, 117 only)	< 2.7 V dc	2.000 V dc		< 1.2 mA

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

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

For more information call:
In the U.S.A. (800) 443-5853
In Canada (800) 36-FLUKE
From other countries +1 (425) 446-5500
www.fluke.com

©2006, 2020 Fluke Corporation.
Specifications subject to change without notice.
08/2020 2793260b-en

Modification of this document is not permitted without written permission from Fluke Corporation.