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**Data Sheet**

August 14, 2026

FLUKE

# Fluke 87V-MAX True RMS Digital Multimeter with built-in thermometer

Fluke Laboratory Measurement Instruments. Voltage: 0–1000 V, Current: 0–10 A continuous (20 A for 30 seconds).



MODEL

**Fluke 87V-MAX**

CALIBRATION

**Available on request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**87V-MAX**

LISTING

<https://aumictechlabs.com/products/87v-max-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Fluke 87V-MAX is a True RMS digital multimeter engineered for industrial field service and troubleshooting in harsh environments. It delivers accurate measurements across AC/DC voltage, current, resistance, capacitance, frequency, and temperature - plus specialized VFD measurement capability for electrically noisy equipment. Built to survive extreme conditions with IP67 rating, 4 m drop protection, and CAT IV 600 V / CAT III 1000 V safety certification, this meter combines durability with precision measurement. Technical Specifications Electrical Measurements AC/DC Voltage: 0–1000 V, 0.05% + 1 DC accuracy, 0.7% + 4 AC accuracy (true-rms), 0.1 mV resolution AC/DC Current: 0–10 A continuous (20 A for 30 seconds), 0.2% + 2 DC accuracy, 1.0% + 2 AC accuracy, 0.1  $\mu$ A resolution Resistance: 0–50 M $\Omega$ , 0.1  $\Omega$  resolution Capacitance: 0.01 nF–10,000  $\mu$ F Frequency: 0–200 kHz, 0.005% + 1 accuracy, 0.01 Hz resolution Temperature (via Type-K thermocouple): -200 °C to +1090 °C Continuity and diode testing

included VFD Measurement Low-pass filtered AC voltage measurements (15 Hz to 20 kHz) with high-frequency noise rejection for accurate readings on variable frequency drives and similar electrically noisy circuits. Environmental & Physical IP67 rating (complete dust and water protection) Operational: -15 °C to +55 °C; emergency operation at -40 °C (up to 20 minutes) 95% humidity rated Withstands 4 m (13 ft) drops Survives 8000 V transient spikes (load switching faults) CAT IV 600 V / CAT III 1000 V rated Industrial-strength outer shell with removable holster (doubles as test lead storage and probe holder) Display Hi-resolution 19,999 or 20,000 count display modes Key Features True-RMS AC voltage and current for accurate non-linear signal measurement Built-in Type-K thermocouple thermometer - no separate device required VFD-optimized measurements with low-pass filtering and shielding against high-frequency noise One-handed operation via holster-integrated probe holder Industrial-grade drop and environmental protection Typical Applications Electrical troubleshooting on industrial circuits, variable frequency drive diagnostics, HVAC/R service, motor and transformer testing, and field temperature monitoring.

## Features & description

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From manufacturer datasheet

### Built-in thermometer with Type-K support

Min/Max/Average and Peak Min/Max capture 4 meter drop-tested holster and long AA battery life

Technical Specifications DC Voltage Range: 0.1 mV to 1000 V DC Voltage Accuracy: plus or minus (0.05 percent plus 1) DC Voltage Maximum Resolution: 0.1 mV AC Voltage Range: 0.1 mV to 1000 V AC Voltage Accuracy: plus or minus (0.7 percent plus 4) true-rms AC Bandwidth With Low Pass Filter: 20 kHz; 3 dB at 1 kHz AC Voltage Maximum Resolution: 0.1 mV DC Current Range: 0.1 uA to 10 A (20 A for 30 seconds maximum) DC Current Accuracy: plus or minus (0.2 percent plus 2) DC Current Maximum Resolution: 0.1 uA AC Current Range: 0.1 uA to 10 A (20 A for 30 seconds maximum) AC Current Accuracy: plus or minus (1.0 percent plus 2) true-rms AC Current Maximum Resolution: 0.1 uA Resistance Range: 0.1 ohm to 50 Mohm Resistance Accuracy: plus or minus (0.2 percent plus 1) Resistance Maximum Resolution: 0.1 ohm Capacitance Range: 0.01 nF to 9999 uF Capacitance Accuracy: plus or minus (1 percent plus 2) Frequency Range: 0.5 Hz to 199.99 kHz Frequency Accuracy: plus or minus (0.005 percent plus 1) Frequency Maximum Resolution: 0.01 Hz Duty Cycle Maximum: 99.9 percent Conductance Maximum: 60.00 nS Diode Test Range: 2 V

## 87VMAX Characteristics / Specifications

| PARAMETER                         | VALUE                                        |
|-----------------------------------|----------------------------------------------|
| DC Voltage Range                  | 0.1 mV to 1000 V                             |
| DC Voltage Accuracy               | plus or minus (0.05 percent plus 1)          |
| DC Voltage Maximum Resolution     | 0.1 mV                                       |
| AC Voltage Range                  | 0.1 mV to 1000 V                             |
| AC Voltage Accuracy               | plus or minus (0.7 percent plus 4) true-rms  |
| AC Bandwidth With Low Pass Filter | 20 kHz; 3 dB at 1 kHz                        |
| AC Voltage Maximum Resolution     | 0.1 mV                                       |
| DC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum) |
| DC Current Accuracy               | plus or minus (0.2 percent plus 2)           |
| DC Current Maximum Resolution     | 0.1 uA                                       |
| AC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum) |
| AC Current Accuracy               | plus or minus (1.0 percent plus 2) true-rms  |
| AC Current Maximum Resolution     | 0.1 uA                                       |
| Resistance Range                  | 0.1 ohm to 50 Mohm                           |
| Resistance Accuracy               | plus or minus (0.2 percent plus 1)           |
| Resistance Maximum Resolution     | 0.1 ohm                                      |
| Capacitance Range                 | 0.01 nF to 9999 uF                           |
| Capacitance Accuracy              | plus or minus (1 percent plus 2)             |
| Frequency Range                   | 0.5 Hz to 199.99 kHz                         |
| Frequency Accuracy                | plus or minus (0.005 percent plus 1)         |
| Frequency Maximum Resolution      | 0.01 Hz                                      |
| Duty Cycle Maximum                | 99.9 percent                                 |
| Conductance Maximum               | 60.00 nS                                     |
| Diode Test Range                  | 2 V                                          |
| Temperature Measurement Range     | minus 200 C to plus 1090 C excluding probe   |

| PARAMETER                   | VALUE                                                        |
|-----------------------------|--------------------------------------------------------------|
| Overvoltage Category        | CAT IV 600 V CAT III 1000 V                                  |
| IP Rating                   | IP67                                                         |
| Battery Type                | three AA                                                     |
| Battery Life Typical        | 800 hours without backlight                                  |
| Drop Test                   | 4 m                                                          |
| Size With Holster HxWxL     | 6.0 cm x 10.1 cm x 21.5 cm                                   |
| Weight With Holster         | 698.5 g                                                      |
| Display Counts              | 6000 / 19999 high resolution                                 |
| Operating Temperature Class | minus 15 C to plus 55 C (minus 40 C up to 20 minutes)        |
| Bandwidth                   | With Low Pass Filter: 20 kHz; 3 dB at 1 kHz                  |
| Operating temperature       | Class: minus 15 C to plus 55 C (minus 40 C up to 20 minutes) |

# General Specifications & Supplementary Characteristics

| PARAMETER                         | VALUE                                                        |
|-----------------------------------|--------------------------------------------------------------|
| Operating temperature             | Class: minus 15 C to plus 55 C (minus 40 C up to 20 minutes) |
| Operating Temperature             | Class: minus 15 C to plus 55 C (minus 40 C up to 20 minutes) |
| DC Voltage Range                  | 0.1 mV to 1000 V                                             |
| DC Voltage Accuracy               | plus or minus (0.05 percent plus 1)                          |
| DC Voltage Maximum Resolution     | 0.1 mV                                                       |
| AC Voltage Range                  | 0.1 mV to 1000 V                                             |
| AC Voltage Accuracy               | plus or minus (0.7 percent plus 4) true-rms                  |
| AC Bandwidth With Low Pass Filter | 20 kHz; 3 dB at 1 kHz                                        |
| AC Voltage Maximum Resolution     | 0.1 mV                                                       |
| DC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum)                 |
| DC Current Accuracy               | plus or minus (0.2 percent plus 2)                           |
| DC Current Maximum Resolution     | 0.1 uA                                                       |
| AC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum)                 |
| AC Current Accuracy               | plus or minus (1.0 percent plus 2) true-rms                  |
| AC Current Maximum Resolution     | 0.1 uA                                                       |
| Resistance Range                  | 0.1 ohm to 50 Mohm                                           |
| Resistance Accuracy               | plus or minus (0.2 percent plus 1)                           |
| Resistance Maximum Resolution     | 0.1 ohm                                                      |
| Capacitance Range                 | 0.01 nF to 9999 uF                                           |
| Capacitance Accuracy              | plus or minus (1 percent plus 2)                             |
| Frequency Range                   | 0.5 Hz to 199.99 kHz                                         |
| Frequency Accuracy                | plus or minus (0.005 percent plus 1)                         |
| Frequency Maximum Resolution      | 0.01 Hz                                                      |
| Duty Cycle Maximum                | 99.9 percent                                                 |
| Conductance Maximum               | 60.00 nS                                                     |

| PARAMETER                     | VALUE                                                                                                                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diode Test Range              | 2 V                                                                                                                                                                                                                                                                                   |
| Temperature Measurement Range | minus 200 C to plus 1090 C excluding probe                                                                                                                                                                                                                                            |
| Overvoltage Category          | CAT IV 600 V CAT III 1000 V                                                                                                                                                                                                                                                           |
| IP Rating                     | IP67                                                                                                                                                                                                                                                                                  |
| Battery Type                  | three AA                                                                                                                                                                                                                                                                              |
| Battery Life Typical          | 800 hours without backlight                                                                                                                                                                                                                                                           |
| Drop Test                     | 4 m                                                                                                                                                                                                                                                                                   |
| Size With Holster HxWxL       | 6.0 cm x 10.1 cm x 21.5 cm                                                                                                                                                                                                                                                            |
| Weight With Holster           | 698.5 g                                                                                                                                                                                                                                                                               |
| Display Counts                | 6000 / 19999 high resolution                                                                                                                                                                                                                                                          |
| Operating Temperature Class   | minus 15 C to plus 55 C (minus 40 C up to 20 minutes) Notes<br>Specifications from Fluke 87V MAX True-rms Digital Multimeter official product page and datasheet. Accuracies are plus or minus (percent of reading plus counts) for one year at 18 C to 28 C unless otherwise stated. |

# Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

environmental ruggedness. Official Fluke 87V MAX specifications list DC voltage accuracy of plus or minus (0.05 percent plus 1), AC true-RMS to 1000 V, current to 10 A, resistance to 50 Mohm, frequency to 199.99 kHz, IP67 sealing, and a 4 m drop rating with about 800-hour battery life on three AA cells.

Applications

Industrial electrical troubleshooting in wet dusty and extreme temperature sites, VFD and motor-drive measurements with low-pass filter, temperature checks with Type-K probe, and peak capture of intermittents in CAT III 1000 V / CAT IV 600 V environments.

Key Features

IP67 waterproof dustproof enclosure

True-RMS AC with selectable VFD low-pass filter

Built-in thermometer with Type-K support

Min/Max/Average and Peak Min/Max capture

4 meter drop-tested holster and long AA battery life

Technical Specifications

## Technical Specifications

| PARAMETER                         | VALUE                                        |
|-----------------------------------|----------------------------------------------|
| DC Voltage Range                  | 0.1 mV to 1000 V                             |
| DC Voltage Accuracy               | plus or minus (0.05 percent plus 1)          |
| DC Voltage Maximum Resolution     | 0.1 mV                                       |
| AC Voltage Range                  | 0.1 mV to 1000 V                             |
| AC Voltage Accuracy               | plus or minus (0.7 percent plus 4) true-rms  |
| AC Bandwidth With Low Pass Filter | 20 kHz; 3 dB at 1 kHz                        |
| AC Voltage Maximum Resolution     | 0.1 mV                                       |
| DC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum) |
| DC Current Accuracy               | plus or minus (0.2 percent plus 2)           |
| DC Current Maximum Resolution     | 0.1 uA                                       |
| AC Current Range                  | 0.1 uA to 10 A (20 A for 30 seconds maximum) |
| AC Current Accuracy               | plus or minus (1.0 percent plus 2) true-rms  |
| AC Current Maximum Resolution     | 0.1 uA                                       |
| Resistance Range                  | 0.1 ohm to 50 Mohm                           |
| Resistance Accuracy               | plus or minus (0.2 percent plus 1)           |
| Resistance Maximum Resolution     | 0.1 ohm                                      |
| Capacitance Range                 | 0.01 nF to 9999 uF                           |
| Capacitance Accuracy              | plus or minus (1 percent plus 2)             |
| Frequency Range                   | 0.5 Hz to 199.99 kHz                         |

| PARAMETER                     | VALUE                                                 |
|-------------------------------|-------------------------------------------------------|
| Frequency Accuracy            | plus or minus (0.005 percent plus 1)                  |
| Frequency Maximum Resolution  | 0.01 Hz                                               |
| Duty Cycle Maximum            | 99.9 percent                                          |
| Conductance Maximum           | 60.00 nS                                              |
| Diode Test Range              | 2 V                                                   |
| Temperature Measurement Range | minus 200 C to plus 1090 C excluding probe            |
| Overvoltage Category          | CAT IV 600 V CAT III 1000 V                           |
| IP Rating                     | IP67                                                  |
| Battery Type                  | three AA                                              |
| Battery Life Typical          | 800 hours without backlight                           |
| Drop Test                     | 4 m                                                   |
| Size With Holster HxWxL       | 6.0 cm x 10.1 cm x 21.5 cm                            |
| Weight With Holster           | 698.5 g                                               |
| Display Counts                | 6000 / 19999 high resolution                          |
| Operating Temperature Class   | minus 15 C to plus 55 C (minus 40 C up to 20 minutes) |

Notes  
Specifications from Fluke 87V MAX True-rms Digital Multimeter official product page and datasheet. Accuracies are plus or minus (percent of reading plus counts) for one year at 18 C to 28 C unless otherwise stated.

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.