

Meters designed for the way you work

ADVANCED METERS

GENERAL METERS



289



287



87 V MAX



87 V



3000 FC



233



179



177



175




77 IV

Best for	Advanced industrial troubleshooting, including data logging and graphing intermittent problems	Advanced industrial troubleshooting, including data logging and graphing intermittent problems	Severe industrial environments that need high-performance dustproof and waterproof test equipment	Industrial troubleshooting	Commercial and industrial electrical/electronic troubleshooting and maintenance	Taking measurements in hard to reach places or in areas with restricted access	Everyday use for industrial and electrical troubleshooting and maintenance	The right features for electrical maintenance experts	The baseline for industrial measurements and safety rated for industrial use	Versatile meter for field service or bench repair
Applications	<p>Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals.</p> <p>Graphing: View logged values graphically in the field right on the meter, without a PC.</p> <p>Logging: For unattended monitoring of signals over time, to detect intermittent problems.</p> <p>Testing motor windings or contact resistance: Allows testing of resistance up to 50 ohms with one milliohm (0.001 ohm) resolution.</p>	<p>Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals.</p> <p>Graphing: View logged values graphically in the field right on the meter, without a PC.</p> <p>Logging: For unattended monitoring of signals over time, to detect intermittent problems.</p> <p>Testing motor windings or contact resistance: Allows testing of resistance up to 50 ohms with one milliohm (0.001 ohm) resolution.</p>	<p>Industrial troubleshooting in indoor and outdoor harsh environments: Dustproof, waterproof, shockproof multimeter designed to withstand the toughest environments.</p> <p>Working on VSDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals.</p>	<p>Working on VSDs/VFDs: Take accurate voltage, current and frequency measurements on the output side of the drive at either the drive itself or at the motor terminals.</p> <p>Industrial troubleshooting: All of the resolution and accuracy you need to solve more problems on motor drives, in-plant automation, and electromechanical equipment.</p> <p>Checking power quality: Capture glitches and spikes as short as 250 μs. Identify irregular signals.</p>	<p>Work faster and safer with Fluke Connect (FC) wireless test tools: The 3000 FC wireless multimeter and associated wireless modules allows users to work safer, log time stamped readings, be in two places at once and see multiple readings simultaneously to solve complex electrical problems faster.</p> <p>Build the system as your needs grow: Start with the multimeter and expand your measurement and troubleshooting capabilities by adding additional meters to meet your specific applications including three-phase load studies with iFlex or voltage monitoring.</p>	<p>Reduce the risk of arc flash by separating the display from hazardous measurement situations. No more having to stretch into tight spots or hard to reach locations to take measurements. No more having to hold both the meter and the test leads to make a measurement.</p>	<p>Electrical maintenance and troubleshooting: Variety of commercial electrical troubleshooting, installation and maintenance.</p> <p>Temperature measurements: Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument.</p>	Independently tested for safe use in CAT IV 600 V/CAT III 1000 V environments. The Fluke 177 digital multimeter includes all the features you need to troubleshoot and repair many problems in electrical and electronic systems.	The Fluke 175 True-RMS Digital Multimeter delivers accurate true-RMS AC current and voltage plus frequency, capacitance, resistance, continuity and diode measurements. It increases productivity with manual and automatic ranging, display hold, Auto Hold, and Min/Max-average recording.	<p>Functions needed to repair most electrical and electronic problems: This meter is simple to use yet has a wide range of measurement functions. Conforms to the latest safety standards, and a large display that's easy to view.</p>

Basic features										
Counts	50000	50000	20000	20000	6000	6000	6000	6000	6000	6000
True RMS readings	ac+dc	ac+dc	ac	ac	ac	ac	ac	ac	ac	ac
Basic dc accuracy	0.025 %	0.025 %	0.05 %	0.05 %	0.09 %	0.25 %	0.09 %	0.09 %	0.15 %	0.3 %
Wide bandwidth	100 kHz	100 kHz	20 kHz	20 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz
Auto/manual ranging	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Digits	4-1/2	4-1/2	3-1/2	4-1/2	3-1/2	3-1/2	3-1/2	3-1/2	3-1/2	3-1/2
Measurements										
Voltage ac/dc	1000 V	1000 V	1000 V	1000V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Current ac/dc	10 A	10 A	10 A	10 A	400 mA	10 A	10 A	10 A	10 A	10 A
Resistance	500 MΩ	500 MΩ	50 MΩ	50 MΩ	50 MΩ	40 MΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ
Frequency	1 MHz	1 MHz	200 kHz	200 kHz	100 kHz	50 kHz	100 kHz	100 kHz	100 kHz	100 kHz
Capacitance	100 mF	100 mF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF	10,000 μF
Temperature	(+) 1350 °C	(+) 1350 °C	(+) 1090 °C	(+) 1090 °C		(+) 400 °C	(+) 400 °C			
Conductance / dB	50 nS / 60 dB	50 nS / 60 dB	60 nS / -	50 nS / -						
Duty cycle/pulse width	• / •	• / •	• / -	• / -						
Continuity/diode test	•	•	•	•	•	•	•	•	•	•
Motor Drive (ASD) Measurements	•		•	•						
LoZ: low input impedance	•									
Lo Ohms	•									
Microamps	•	•	•	•						

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	ADVANCED METERS				GENERAL METERS					
	289	287	87 V MAX	87 V	3000 FC	233	179	177	175	77 IV
Measurements										
Volt Alert™										
Lo ohms	•									
Microamps	•	•	•							
Display										
 FLUKE CONNECT™	Fluke Connect-enabled remote wireless readings (ir3000 FC Adapter required)	Fluke Connect-enabled remote wireless readings (ir3000 FC Adapter required)			Fluke Connect-enabled remote wireless readings	Removable Wireless Display				
Dot Matrix Display	•	•			•					
Dual display	•	•			•					
Analog bargraph	•	•	•	•			•	•	•	•
Backlight	Two level	Two level	Two level	Two level	•	•	•	•		•
Graphical Trend Display	•	•								
Diagnostics and data										
Min-Max recording/with time stamp	• / •	• / •	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -
Fast Min-Max	250 μs	250 μs	250 μs	250 μs						
Display Hold/Auto (Touch) Hold	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Relative Reference	•	•	•	•						
Stand alone logging	•	•								
Trend Capture	•	•								
Readings memories	10,000	10,000			(With FC app)					
USB interface	•	•								
Other features										
Overmolded case, integrated holster	•	•			•	•	•	•	•	•
Removable holster			•	•						
Iflex Compatability					(With separate modules)					
Completely Sealed/ Watertight			•							
Operating temperature range	-20 °C, +55 °C	-20 °C, +55 °C	-40 °C, +55 °C	-20 °C, +55 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C
Warranty and electrical safety										
Warranty (years)	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime	3	3	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime
Input alert	•	•	•	•						
Dangerous voltage indication	•	•	•	•	•	•	•	•	•	•
IP Rating	IP 42	IP 42	IP 67	IP 30	IP 54					
EN61010-1 CAT III	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
EN61010-1 CAT IV	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V	600 V



The largest system of software and wireless test tools in the world.



Learn more at flukeconnect.com

Meters designed for the way you work

	COMPACT METERS							SPECIALTY METERS					
	117	116	115	114	113	110	107	17B+	279 FC	1587 FC	28 II	27 II	28 II Ex
Measurements													
VoltAlert™, Non-contact voltage detection	•												
VCHEK™					•								
LoZ: low input impedance	•	•		•	•								
Lo Ohms													
Microamps		•								•	•	•	
Display													
FLUKE CONNECT™									Fluke Connect-enabled remote wireless readings				
Dot Matrix Display									•				
Dual display									•				
Analog bargraph	•	•	•	•	•	•	•	•			•	•	•
Backlight	•	•	•	•	•	•	•	•	•	•	Two level	Two level	Two level
Graphical Trend Display													
Diagnostics and data													
Min-Max recording/with time stamp	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -
Fast Min-Max											250 μs		250 μs
Display Hold/Auto (Touch) Hold	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / -	• / •	• / •	• / •	• / •	• / •
Relative Reference								•			•	•	•
Readings memories									(With FC app)	(With FC app)			
USB interface									•				
Other features													
Automatic selection, AC/DC volts	•	•		•	•								
Overmolded case, integrated holster							•						
Removable holster	•	•	•	•	•	•		•	•	•	•	•	•
Infrared Camera Resolution									80 x 60				
Infrared Camera Range									-10 °C, +200 °C				
Iflex Compatability									•				
Insulation Test voltages										50, 100, 250, 500, 1000 V			
Pi/DAR timed ratio test										•			
Completely Sealed/Watertight											•	•	•
Operating temperature range	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	0 °C, +40 °C	0 °C, +40 °C	-10 °C, +50 °C	-20 °C, +55 °C	-40 °C, +55 °C	-40 °C, +55 °C	-15 °C, +50 °C
Warranty and electrical safety													
Warranty (years)	3	3	3	3	3	3	1	1	3	3	Limited lifetime	Limited lifetime	3
Input alert										•	•	•	•
Dangerous voltage indication	•	•	•	•	•	•			•	•	•	•	•
IP Rating	IP 42	IP 42	IP 42	IP 42	IP 42	IP 42			IP 40	IP 40	IP 67	IP 67	IP 67
EN61010-1 CAT III	600 V	600 V	600 V	600 V		600 V	600 V	600V	1000 V	1000 V	1000 V	1000 V	1000 V
EN61010-1 CAT IV									600 V	600 V	600 V	600 V	600 V