

## **TECHNICAL DATA**

# Fluke 279 FC True-rms Thermal Multimeter



CAMERA Built-in thermal imager

DISPLAY Full-color LCD screen provides clean, crisp readings

**iFLEX<sup>®</sup> PROBE INCLUDED** Both 279 FC models include the iFlex flexible current probe. Get into tight, hard to reach spaces for measurements up to 2500 A ac.

FLUKE CONNECT Transmit results wirelessly to your smartphone with Fluke Connect





# 4 ways the Fluke 279 FC will make your job easier

#### 1. Find the problem faster

Scan with the thermal imager to find electrical problems rapidly and from a safe distance. Check hot spots on high-voltage equipment and transformers; identify heating of fuses, wires, insulators, connectors, splices and switches. The 279 FC now allows you to save, recall and review saved images on the meter. You'll be certain that you have the image you need before moving on.

## 2. Work in places you couldn't even reach before

The iFlex flexible ac current probe lets you work in tight, hardto-reach spaces spots. Make accurate current measurements up to 2500 A ac, in spaces that would be impossible to reach with a conventional clamp.

#### 3. Fix almost everything

The 279 FC is a full-featured, true-rms digital multimeter. All the basics you need in a DMM, plus advanced capabilities: motor drive (ASD) measurements, min/max recording, display hold and more. Safety rated 1000 V CAT III, 600 V CAT IV.

#### 4. Find the next problem before it happens

With Fluke Connect, you can save and send all your measurements to the cloud. Compare readings with past measurements. Spot trends that indicate small problems before they become big trouble.



# **Product highlights**

- Full-featured multimeter with built-in thermal imager
- 15 measurement functions including: ac voltage with low-pass filter, dc voltage, resistance, continuity, capacitance, diode test, min/max/avg, ac current (with iFlex), frequency
- Thermal imaging reveals many electrical issues quickly and safely, eliminating the need for time-consuming testing and validation
- Two-in-one tool is designed to increase productivity-no need to go back to the truck or office to retrieve a shared camera or wait for the thermographer-do more in less time!
- iFlex expands your measurement capabilities– get into tight, hard to reach spaces for current measurement up to 2500 A ac.

- Save measurements and images while communicating wirelessly with a smart phone up to 20 feet (6.1m) away (no obstructions)
- Review saved images on the 279 FC before sharing with Fluke Connect. Save, delete, compare and share after viewing on the meter.
- Image resolution-102x77
- 3.5 in (8.89cm) color LCD screen
- Rechargeable lithium ion battery allows for a for a full work day (10+ hours) under normal conditions. FLUKE-279FC I/B model includes second battery; always have one in the meter, one in the charger.
- Assembled in the USA
- Three-year standard warranty
- · Auto power off to save battery power
- CAT III 1000 V, CAT IV 600 V measurement category
- Optional accessories: Fluke i2500-10 or iFlex<sup>®</sup> Flexible Current Probes, Fluke BC500 AC Power Charger and Fluke BP500 Lithium-ion Battery 3000 mAh

AC voltage				
Range <sup>1</sup> /resolution	600.0 mV / 0.1 mV 6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V 1000 V / 1 V			
Accuracy <sup>2, 3, 4, 5</sup>	45 Hz to 65 Hz	1.0 % + 3		
	65 Hz to 200 Hz	4.0 % + 3		
	200 Hz to 500 Hz	15 % + 3		
AC mV				
Range <sup>1</sup> /resolution	600.0 mV / 0.1 mV			
Accuracy <sup>2, 3, 4</sup>	45 Hz to 500 Hz	1.0 % + 3		
<sup>1</sup> AC voltage ranges are specified from 1 % of range to 100 % of range. <sup>2</sup> Crest factor of ≤ 3 at full scale up to 500 V, decreasing linearly to crest factor < 1.5 at 1000 V. <sup>3</sup> For non-sinusoidal waveforms, add - (2 % of reading + 2 % full scale) typical, for crest factor up to 3. <sup>4</sup> Do not exceed 107 V-Hz. <sup>8</sup> Full-time low pass filter				
DC voltage				
Range/resolution	6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V 1000 V / 1 V			
Accuracy	6 V, 60 V, 600 V	0.09 % + 2		
	1000 V	0.15 % + 2		
DC mV				
Range/resolution	600.0 mV / 0.1 mV			
Accuracy	0.09 % + 2			
Continuity				
Range/resolution	600 Ω / 1 Ω			
Accuracy	Meter beeps at < 25 $\Omega$ , beeper detects opens or shorts of 600 $\mu$ s or longer			

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### **Specifications**



# **Detailed specifications (continued)**

Resistance		
Range/resolution	600.0 Ω / 0.1 Ω	
1.01190/169010(1011	6.000 kΩ / 0.001 kΩ 60.00 kΩ / 0.01 kΩ	
	600.0 kΩ / 0.1 kΩ	
	6.000 MΩ / 0.001 MΩ 50.00 MΩ / 0.01 MΩ	
Accuracy	600 Ω	0.5 % + 2
	6 kΩ to 600 kΩ	0.5 % + 1
	50 ΜΩ	1.5 % + 3
Diode test		
Range/resolution	2.000 V / 0.001 V	
Accuracy	1 % + 2	
Capacitance		
Range/resolution	1000 nF / 1 nF 10.00 μF / 0.01 μF	
	10.00 μF / 0.01 μF 100.0 μF / 0.1 μF 9999 μF' / 1 μF	
Accuracy	1000 nF thu 100 µF	1.2 % + 2
	9999 µF	10 % typical
$^1 In$ the 9999 $\mu F$ range for measurements to 1000 $\mu F,$	the measurement accuracy is $1.2 \% + 2$ .	
AC current		
Range/resolution	999.9 A / 0.1 A 2500 A / 1 A (with iFlex)	
Accuracy	45 Hz to 500 Hz	3.0 % + 5
Frequency		
Range/resolution	99.99 Hz / 0.01 Hz 999.9 Hz / 0.1 Hz	
Accuracy	0.1 % + 1	
Input characteristics		
AC voltage	Input impedance (nominal)	> 10 MΩ < 100 pF
	Common mode rejection ratio (1 kΩ unbalance)	> 60 dB, DC to 60 Hz
	Overload protection	1100 V rms
DC voltage	Input impedance (nominal)	> 10 MΩ < 100 pF
	Common mode rejection ratio (1 kΩ unbalance)	> 120 dB at DC, 50 Hz or 60 Hz
	Normal mode rejection	> 60 dB at 50 Hz or 60 Hz
	Overload protection	1100 V rms
AC mV/DC mV	Input impedance (nominal)	> 10 MΩ < 100 pF
	Common mode rejection ratio (1 kΩ unbalance)	> 120 dB at DC, 50 Hz or 60 Hz
	Normal mode rejection	> 60 dB at 50 Hz or 60 Hz
	Overload protection	1100 V rms
Resistance/capacitance	Open circuit test voltage	< 2.7 V dc
	Full scale voltage to 6 M $\Omega$ Full scale voltage 50 M $\Omega$	< 0.7 V dc < 0.9 V dc
	I ull scale voltage 50 Miz	
	Typical short circuit current	< 350 mA
	-	< 350 mA 1100 V rms
Continuity/diode test	Typical short circuit current	
Continuity/diode test	Typical short circuit current Overload protection	1100 V rms



# **Detailed specifications (continued)**

Chunchons     12 contrains for changes > 380 ms in duration       antraced camera     Interval camera       infrared camera temperature     Aasurement resolution     0.1 °C       Respectation     0.1 °C     To Con 200° (14 °F to 392 °F)       Measurement resolution     0.1 °C     To Con 200° (14 °F to 392 °F)       Measurement resolution     0.1 °C     To Con 200° (14 °F to 392 °F)       Measurement resolution     0.1 °C     To Con 200° (14 °F to 392 °F)       mage performance     Emissivity     0.8 °F to con 15 %, whichever is greater, at 25 °C       mage performance     Resolution     102 x 77       Infrared sepatror frequency     BHz     Delector type       Delector type     Bhooold vanadium oxide     Thermal sensitivity (NETD)     \$ 200 mK       Infrared seportal band     7.5 µm to 14 µm     Distance to spot     162:1       Peld of vew     5 fixed focus     162:1     162:1       Inge capture and data storage     Image capture     Image available for review before a save       Mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Interval meanory stores up to 100 images <th>MIN/MAX recording accuracy</th> <th></th> <th></th>	MIN/MAX recording accuracy			
Infrared camera     Range     -10 °C to 200 °C (14 °F to 392 °F)       Infrared camera temperature     Kasurement resolution     0.1 °C       Temperature measurement     Yes, centerpoint       Accuracy     ±5 °C or ±5 %, whichever is greater, at 25 °C in anheain for traget temperatures below 20 °C, and 000 °C for each °C       mage performance     Resolution     102 x 77       Image capture frequency     B Ha       Detector type     Uncooled vanadium oxide       Detector type     Uncooled vanadium oxide       Thermal sensitivity (NETD)     5 200 mK       Infrared spectral band     7.5 µm to 14 µm       Detector type     Bisance to spot       Pield of view     36 °( w) x 27 ° h)       Pocus mechanism     Fixed focus       mage capture and data storage     Image capture       Image transfer     Flue focus       Image transfer     Flue Connect / SmartUser*       Piele format     is2       Display size     8.9 cm (3.5 inj diagonal       Inage transfer     Flue Connect / SmartUser*       Piele format     is2       Display size     8.9 cm (3.5 inj diagonal       Image tr	AC functions	40 counts for changes > 900 ms in du	ration	
fraced camera temperature fraced camera temperature     Range     -10 °C to 200 °C (14 °F to 392 °F)       Measurement resolution     0.1 °C       Temperature measurement     Ves, centerpoint       Accuracy     So °C or 15 %, whichever is greater, at 25 °C tambient for target temperatures below 20 °C, add 008 °C or each °C       mage performance     Resolution     102 x 77       mage capture frequency     B Ha       Detector type     Uncooled vanadium oxide       Thermal sensitivity (NETD)     \$ 200 mK       Infared segeture frequency     B Ha       Distance to spot     162:1       Field of view     36 °(w) x 27° (h)       Focus mechanism     Fixed focus       Pater     Torobow       Evel and span     Auto       mage capture and data storage     Inage capture       Inage capture and for meriew before a save     Storage medium       Inage capture and data storage     1000 V       Storage medium     Internal memory stores up to 100 images       Inage capture formation     6000 counts       Capacitance     6000 vocuts       Storage medium     Interral memory stores up to 100 images	DC functions	12 counts for changes > 350 ms in du	ration	
Measurement resolution     0.1 °C       Temperature measurement     Ves. centerpoint       Accuracy     55 °C or 15 %, whichever is greater, at 25 °C       Emissivity     0.96 fixed       mage performance     Resolution     102 x 77       Image capture frequency     8 Ha     102 x 77       Image capture frequency     8 Ha     102 x 77       Image capture frequency     8 Ha     102 x 77       Infared spectral band     102 x 77     102 x 77       Infared spectral band     75 µm to 14 µm     102 x 77       Infared spectral band     162:1     102 x 77       Infared spectral band     162:1     102 x 77       Infared spectral band     162:1     102 x 100       Infared spectral band     Nuto     100 x 100       Internal sensitivity (NETO)	Infrared camera			
Temperature measurement     Vess, centerpoint       Accuracy     55 °C or ±5 %, whicherus is greater, at 25 °C inabient for target temperatures below 20 °C, add 005 °C for each °C       mage performance     Resolution     102 x 77       mage cepture frequency     8 Hz       Detector type     Uncooled vanadium oxide       Detector type     S200 mK       Infrard spectral band     7.5 µm to 14 µm       Detector type     000 Kr 2 27 °h)       Distance to spot     162 (4 y 2 27 °h)       Pield of view     36 '(w 1 x 27 °h)       Distance to spot     162 (4 y 2 27 °h)       Pield of view     36 '(w 1 x 27 °h)       Mage capture and data storage     Inage capture       Mage capture and data storage     Inage capture       Inage transfer     Inage transfer       Inage transfer     Inage transfer       Vestrimun volkage between any     Inage transfer       Vertification     Indoor counts       Vertification     Indoor counts       Start for guency     Io000 vounts       Vertification     Io000 vounts       Correaction     Io000 vounts       Staretor	Infrared camera temperature	Range	-10 °C to 200 °C (14 °F to 392 °F)	
Accuracy     15 °C or ±5 °C, whichever is greater, at 25 °C, add 0.05 °C for each °C       mage performance     Finiskrity     0.95 fixed       mage performance     Resolution     0.95 fixed       Image capture frequency     8 Hz     1.81       Detector type     Uncooled vanadium oxide     1.81       Detector type     9.81     2.00 mK       Infrared spectral band     5.2 µm to 14 µm     1.81       Detector type     162:1     1.81       Field of view     36° (w) x 27° (h)     1.81       Field of view     36° (w) x 27° (h)     1.82       Poieus mechanism     Field focus     1.82       mage presentation     Palette     Inonbow       mage capture and data storage     Image capture     Auto       Image transfer     Fiel focus     1.82       Jiegd transfer     Fiel concet * formotive/*     1.82       Toroge medium     Internal memory stores up to 100 images     1.82       Image transfer     Fiel concet * formotive/*     1.82       Jiegda trafe     View Concet, * SamtYiew*     1.82       Strang, ohms     60		Measurement resolution	0.1 °C	
Image performance     Emissivity     0.95 fixed       mage performance     Resolution     102 x 17       Image capture frequency     8 Hz       Detector type     Uncooled vanadium oxide       Thermal sensitivity (NETD)     \$ 200 mK       Detector type     162:1       Peled of view     35 (byt x 27° (h)       Peled of view     36 (byt x 27° (h)       Pelet     Tombow       Image capture     Inage capture       Image transfer     Flue focus       Pelet     Tombow       Image transfer     Flue format       Image transfer     Flue format       Pelet for frame     8.9 cm (1.5 in) diagonal       Storage medium     162:1       Image transfer     Flue format       Storage medium     1000 v       Storage medium     10000 counts       Storage medium		Temperature measurement	Yes, centerpoint	
mage performanceResolution102 x 77Image capture frequency8 HzIndige capture frequency8 HzDetector typeUncooled vanadium oxideThermal sensitivity (NETD)< 200 mK		Accuracy	(ambient) for target temperatures below 20 °C,	
Image capture frequency     8 Hz       Detector type     Uncooled vanadium oxide       Detector type     Uncooled vanadium oxide       Thermal sensitivity (NETD)     < 200 mK		Emissivity	0.95 fixed	
Detector type     Uncooled vanadium oxide       Thermal sensitivity (NETD)     ≤ 200 mK       Infrared spectral band     7.5 µm to 14 µm       Distance to spot     162.1       Field of view     36° (w) x 27° (h)       Focus mechanism     Fied focus       mage presentation     Palette     Ironbow       Level and span     Auto       mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Internal memory stores up to 100 images       Image transfer     Fluke Connect' / SmartView*       Display size     8.9 cm (3.5 in) diagonal       Storage medium     is2       Display size     8.9 cm (3.5 in) diagonal       Storage medium     1000 V       Preminal and earth ground     1000 V       Capacitance     10000 counts       Capacitance     10000 counts       Tequency     10000 counts       Capacitance     10000 counts       Startery life     10 hours minimum       R* communications range     2.4 GHZ ISM Band       Pretentreal enclossure     Up to 2.0 m  <	Image performance	Resolution	102 x 77	
Thermal sensitivity (NETD)     ≤ 200 mK       Infrared spectral band     7.5 µm to 14 µm       Distance to spot     162:1       Field of view     36' (w) x 27' (h)       Pocus mechanism     Fixed focus       mage presentation     Palette     Ionohow       Level and span     Auto       mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Internal memory stores up to 100 images       Image transfer     Fluke Connect / SmartView*       File format     is2       pisplay size     8.9 cm (3.5 in) diagonal       Connect     Volts, amps, ohms       frequency     1000 V       Volts, amps, ohms     6000 counts       Frequency     10000 counts       Agatery type     Fluke BP500 lithium ion battery       Stattery type     100 hours minimum       Stattery type     Que ariar (Stattions)       Frequency     1000 counts       Capacitance     1000 counts       Frequency     1000 counts       Capacitance     1000 counts       Frequency		Image capture frequency	8 Hz	
Infrared spectral band     7.5 µm to 14 µm       Distance to spot     162:1       Field of view     36° (w) x 27° (h)       Pocus mechanism     Fixed focus       mage presentation     Palette     Ironbow       Image capture and data storage     Image capture     Image capture       Image transfer     Flue Connect* / SmartView*       Pile format     is2       Display size     8.9 cm (3.5 in) diagonal       Emeral specifications     Volo V       Watter words and storage     Update rate     4/sec       Volts, amps, ohms     6000 counts     6000 counts       Frequency     1000 counts     1000 counts       Capacitance     1000 counts     1000 counts       Frequency     1000 counts     1000 counts       Volts, amps, ohms     6000 counts     1000 counts       Frequency     1000 counts     1000 counts       Volts, amps, ohms     6000 counts     1000 counts       Frequency     1000 counts     1000 counts       Volts, amps, ohms     6000 counts     1000 counts       Frequency     1000 coun		Detector type	Uncooled vanadium oxide	
Distance to spot     162:1       Field of view     36° (w) x 27° (h)       Focus mechanism     Fixed focus       mage presentation     Palette     Ironbow       Level and span     Auto       mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Internal memory stores up to 100 images       Image transfer     Fluke Connect * / SmartView*       File format     is2       Display size     8.9 cm (3.5 in) diagonal       Zemeral specifications     Volts, amps, ohms     6000 counts       Variantum voltage between any erruinal and earth ground     1000 V     10000 counts       Display (LCD)     Update rate     4/sec       Volts, amps, ohms     6000 counts       Capacitance     10000 counts       Capacitance     10000 counts       Stattery type     Fluke EPSO0 lithium ion battery       Stattery Uffe     10 hours minimum       RF communication range     Open air, unobstructed       Obstructed, sheetrock wall     Up to 0.5 m       Obstructed, sheetrock wall     Up to 0.5 m       Obstruct		Thermal sensitivity (NETD)	≤ 200 mK	
Field of view     36° (w) x 27° (h)       Pocus mechanism     Fixed focus       mage presentation     Palette     Ironbow       Level and span     Auto       mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Internal memory stores up to 100 images       Image transfer     File format     is2       Display size     8.9 cm (3.5 in) diagonal       Warmum voltage between any erminal and earth ground     1000 V       Vists, amps, ohms     6000 counts       Capacitance     10000 counts       Volts, amps, ohms     60000 counts       Capacitance     10000 counts       Vists, amps, ohms     60000 counts       Tereurery     1000 counts       Vists, amps, ohms     60000 counts       Vists, amps, ohms     10000 counts       Statery type     104 to return       Recommunications     2.4 CHZ ISM Band       Recommunication range     Open air, unobstructed       Obstructed, sheetrook wall     Up to 3.5 m       Obstructed, concrete wall, or steel electricial enclosure     Up Co to 50°C (14° Ft to 122° F		Infrared spectral band	7.5 μm to 14 μm	
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mage presentation     Paletic     Ironbor       mage presentation     Paletic     Ironbor       Level and span     Auto       mage capture and data storage     Image capture     Image available for review before a save       Storage medium     Internal memory stores up to 100 images       Image transfer     Fluke Connect* / SmartView*       File format     is2       Display size     8.9 cm (3.5 in) diagonal       Contents       Maximum voltage between any erminal and earth ground       1000 V     Volts, amps, ohms       6000 counts     6000 counts       Frequency     10000 counts       Capacitance     1000 counts       Frequency     10000 counts       Gapacitance     1000 counts       Stattery type     Fluke BP500 lithium ion battery       Battery life     10 hours minimum       RF communications     2.4 GHZ ISM Band       NF communication range     Open air, unobstructed     Up to 20 m       Obstructed, sheetrock wall     Up to 3.5 m       Obstructed, concrete wall, or steel electricial enclosure     Up to 100 °C (14 °F to 122 °F)		Field of view	36° (w) x 27° (h)	
Level and spanAutomage capture and data storageImage captureImage available for review before a saveStorage mediumInternal memory stores up to 100 imagesImage transferFluke Connect' / SmartView*File formatis2Display size8.9 cm (3.5 in) diagonalAutomation of the formatMaximum voltage between any erminal and earth ground1000 VVDisplay (LCD)Update rateVolts, amps, ohms6000 countsFrequency10000 countsCapacitance1000 countsAutory type10 hours minimumSattery type10 hours minimumAttery type2.4 GHZ ISM BandRF communications2.4 GHZ ISM BandRF communication rangeOpen air, unobstructedUp to 20 mObstructed, sheetrock wallUp to 3.5 mObstructed, concrete wall, or steel electrical enclosureUp to 3.5 mFrequencyConcof (14 °F to 122 °F)Storage-20 °C to 60 °C (-4 °F to 140 °F)		Focus mechanism	Fixed focus	
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Image transferFluke Connect* / SmartView*File formatis2Display size8.9 cm (3.5 in) diagonalSeneral specificationsVerticationsUot VVerticationsUot VVerticationsUpdate rateVolts, amps, ohms6000 countsFrequency10000 countsCapacitance10000 countsCapacitance10000 counts100 turs minimum10000 countsAttery type10 hours minimumAttery life10 hours minimumFr communications2.4 GHZ ISM BandUp to 20 mObstructed, sheetrock wallUp to 20 mObstructed, sheetrock wallUp to 6.5 mObstructed, concrete wall, or steelUp to 3.5 mremperatureOperating-10 °C to 50 °C (14 °F to 122 °F)Storage-20 °C to 60 °C (-4 °F to 140 °F)	Image capture and data storage	Image capture	Image available for review before a save	
File format     is2       Display size     8.9 cm (3.5 in) diagonal       Seneral specifications     8.9 cm (3.5 in) diagonal       Maximum voltage between any erminal and earth ground     1000 V       Display (LCD)     Update rate     4/sec       Volts, amps, ohms     6000 counts       Frequency     1000 counts       Capacitance     1000 counts       Stattery type     Fluke BP500 lithium ion battery       Battery life     10 hours minimum       RF communications     2.4 GHZ ISM Band       RF communication range     Open air, unobstructed     Up to 20 m       Obstructed, sheetrock wall     Up to 6.5 m       Obstructed, concrete wall, or steel     Up to 3.5 m       electrical enclosure     -0° C' to 50° C(14 °F to 122 °F)       Frange     Operating     -20° C' to 60° C (-4 °F to 140 °F)		Storage medium	Internal memory stores up to 100 images	
Display size     8.9 cm (3.5 in) diagonal       General specifications     Second Science       Maximum voltage between any erminal and earth ground     1000 V       Display (LCD)     Update rate     4/sec       Volta, amps, ohms     600 counts     6000 counts       Tequency     1000 counts     1000 counts       Dattery type     Fluke BPS00 lithium ion battery     1000 counts       Battery life     10 hours minimum     Vertications       RF communications range     Open air, unobstructed     Up to 20 m       Obstructed, sheetrock wall     Up to 3.5 m     Up to 3.5 m       Femperature     Operating     Operating     Operating     Operating       Strage     Operating     Operating     Operating     Operating		Image transfer	Fluke Connect <sup>®</sup> / SmartView <sup>®</sup>	
General specifications   1000 V     Maximum voltage between any erminal and earth ground   1000 V     Display (LCD)   Update rate   4/sec     Volts, amps, ohms   6000 counts     Frequency   10000 counts     Capacitance   1000 counts     Battery type   Fluke BP500 lithium ion battery     Battery life   10 hours minimum     RF communications   2.4 GHZ ISM Band     RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 3.5 m     electrical enclosure   Up to 3.5 m     electrical enclosure   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)		File format	is2	
Maximum voltage between any erminal and earth ground1000 VDisplay (LCD)Update rate4/secVolts, amps, ohms6000 countsFrequency10000 countsCapacitance10000 countsBattery typeFluke BP500 lithium ion batteryBattery life10 hours minimumRF communications2.4 GHZ ISM BandRF communication rangeOpen air, unobstructedUp to 20 mObstructed, sheetrock wallUp to 6.5 mObstructed, concrete wall, or steelUp to 3.5 mFemperatureOperating-10 °C to 50 °C (14 °F to 122 °F)Storage-20 °C to 60 °C (-4 °F to 140 °F)		Display size	8.9 cm (3.5 in) diagonal	
erminal and earth ground   Update rate   4/sec     Display (LCD)   Update rate   4/sec     Volts, amps, ohms   6000 counts     Frequency   10000 counts     Capacitance   10000 counts     Battery type   Fluke BP500 lithium ion battery     Battery life   10 hours minimum     RF communications   2.4 GHZ ISM Band     RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 6.5 m     Obstructed, concrete wall, or steel   Up to 3.5 m     electrical enclosure   Up to 3.5 m     Femperature   Operating   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)	General specifications			
Volts, amps, ohms 6000 counts   Frequency 10000 counts   Capacitance 1000 counts   Battery type Fluke BP500 lithium ion battery   Battery life 10 hours minimum   RF communications 2.4 GHZ ISM Band   RF communication range Open air, unobstructed Up to 20 m   Obstructed, sheetrock wall Up to 6.5 m   Obstructed, concrete wall, or steel electrical enclosure Up to 3.5 m   Femperature Operating -10 °C to 50 °C (14 °F to 122 °F)   Storage -20 °C to 60 °C (-4 °F to 140 °F)	Maximum voltage between any terminal and earth ground	1000 V		
Frequency     10000 counts       Capacitance     10000 counts       Battery type     Fluke BP500 lithium ion battery       Battery life     10 hours minimum       RF communications     2.4 GHZ ISM Band       RF communication range     Open air, unobstructed     Up to 20 m       Obstructed, sheetrock wall     Up to 6.5 m       Obstructed, concrete wall, or steel electrical enclosure     Up to 3.5 m       Femperature     Operating     -10 °C to 50 °C (14 °F to 122 °F)       Storage     -20 °C to 60 °C (-4 °F to 140 °F)	Display (LCD)	Update rate	4/sec	
Capacitance1000 countsBattery typeFluke BP500 lithium ion batteryBattery life10 hours minimumRF communications2.4 GHZ ISM BandRF communication rangeOpen air, unobstructedObstructed, sheetrock wallUp to 20 mObstructed, sheetrock wallUp to 6.5 mObstructed, concrete wall, or steel electrical enclosureUp to 3.5 mFemperatureOperating-10 °C to 50 °C (14 °F to 122 °F)Storage-20 °C to 60 °C (-4 °F to 140 °F)		Volts, amps, ohms	6000 counts	
Battery type   Fluke BP500 lithium ion battery     Battery life   10 hours minimum     RF communications   2.4 GHZ ISM Band     RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 6.5 m     Obstructed, concrete wall, or steel electrical enclosure   Up to 3.5 m     Temperature   Operating   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)		Frequency	10000 counts	
Battery life   10 hours minimum     RF communications   2.4 GHZ ISM Band     RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 6.5 m     Obstructed, concrete wall, or steel electrical enclosure   Up to 3.5 m     Femperature   Operating   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)		Capacitance	1000 counts	
RF communications   2.4 GHZ ISM Band     RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 6.5 m     Obstructed, concrete wall, or steel electrical enclosure   Up to 3.5 m     remperature   Operating   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)	Battery type	Fluke BP500 lithium ion battery		
RF communication range   Open air, unobstructed   Up to 20 m     Obstructed, sheetrock wall   Up to 6.5 m     Obstructed, concrete wall, or steel electrical enclosure   Up to 3.5 m     Temperature   Operating   -10 °C to 50 °C (14 °F to 122 °F)     Storage   -20 °C to 60 °C (-4 °F to 140 °F)	Battery life	10 hours minimum		
Obstructed, sheetrock wall Up to 6.5 m   Obstructed, concrete wall, or steel electrical enclosure Up to 3.5 m   Temperature Operating -10 °C to 50 °C (14 °F to 122 °F)   Storage -20 °C to 60 °C (-4 °F to 140 °F)	RF communications	2.4 GHZ ISM Band		
Obstructed, concrete wall, or steel electrical enclosure Up to 3.5 m   Temperature Operating -10 °C to 50 °C (14 °F to 122 °F)   Storage -20 °C to 60 °C (-4 °F to 140 °F)	RF communication range	Open air, unobstructed	Up to 20 m	
electrical enclosure -10 °C to 50 °C (14 °F to 122 °F)   Storage -20 °C to 60 °C (-4 °F to 140 °F)		Obstructed, sheetrock wall	Up to 6.5 m	
Storage -20 °C to 60 °C (-4 °F to 140 °F)			Up to 3.5 m	
	Temperature	Operating	-10 °C to 50 °C (14 °F to 122 °F)	
		Storage	-20 °C to 60 °C (-4 °F to 140 °F)	
Temperature coefficient0.1 X (specified accuracy) / °C (< 18 °C or > 28 °C)	Temperature coefficient	0.1 X (specified accuracy) / °C (< 18 °C	0.1 X (specified accuracy) / °C (< 18 °C or > 28 °C)	



Detailed specifications (continued)				
Relative humidity	0 % to 90 % (0 °C to 35 °C) 0 % to 75 % (35 °C to 40 °C) 0 % to 45 % (40 °C to 50 °C)			
Altitude	Operating	2000 m		
	Storage	12000 m		
Certifications	CSA, FCC, CE			
Size (H x W x L)	5.7 cm x 9.4 cm x 21.6 cm (2.3 in x 3.7 in x 8.5 in)			
Weight	0.80 kg (1.75 lb)			
Warranty	Three years			



Figure 1. Fluke 279 FC with the iFlex Flexible Current Probe

Figure 2. Fluke 279 FC/iFlex TRMS Thermal Multimeter Package Contents

## **Ordering information**

#### **279 FC/iFlex TRMS Thermal Multimeter**

Includes 279 FC True-rms Thermal Multimeter, 18 in (45.72 cm) iFlex Flexible Current Probe, TL175 test leads, rechargeable lithium ion battery and charger, soft carrying case and hanging strap

#### **FLUKE-279FC I/B Thermal Multimeter**

Includes 279 FC True-rms Thermal Multimeter, 18 in (45.72 cm) iFlex Flexible Current Probe, TL175 test leads, two rechargeable lithium ion batteries and one charger, soft carrying case and hanging strap

#### **Optional accessories**

Fluke i2500-10 Fluke i2500-10 iFlex\* Flexible Current Probe Fluke BC500 Fluke BC500 AC Power Charger Fluke BP500 Fluke BP500 Lithium-Ion Battery 3000 mAh battery Fluke C280 Carrying Case Fluke Corporation PO Box 9090, Everett, WA 98206 U.S.A.

Fluke Europe B.V. PO Box 1186, 5602 BD Eindhoven, The Netherlands

#### For more information call:

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