



Power Quality & Energy Analyser

The MT795 Three-Phase Power Quality and Energy Analyser is a compact, high-performance instrument designed for advanced power quality analysis and energy diagnostics. It accurately measures a wide range of electrical parameters, including voltage, current, frequency, power, energy, flicker, harmonics, and interharmonics, as well as transients, voltage sags and surges, and three-phase imbalances. With its ability to deliver real-time insights into energy losses, the MT795 is ideal for both three-phase and single-phase distribution systems, helping users effectively locate, predict, prevent, and troubleshoot power quality issues.

Equipped with a 120x90 pixel built-in touchscreen, the device offers simple, on-site configuration, real-time data verification, and direct data downloads—no external computer required. It also features Wi-Fi connectivity for seamless wireless access. Through the dedicated Power-X App, users can remotely monitor systems, view live graphs, and generate detailed reports from any location. Whether used for ongoing diagnostics or spot-checks, the MT795 provides an efficient and reliable solution for modern power monitoring needs.



Measurement Functions

- Voltage
- Current
- Frequency
- Power
- Energy
- Flicker
- Transients
- Harmonics and interharmonics
- Oscilloscope waveforms and phasors
- Voltage sags and surges
- Three-phase imbalance



Download the Free App
Major Tech Power-X

MT795 | Three-Phase Power Quality & Energy Analyser

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PRODUCT PERFORMANCE INDEX

Voltage/Current/Frequency

Function	Measuring Range	Resolution	Precision
RMS Voltage (Vrms) (AC+DC)	1...1000V phase to neutral	0.1V	±0.1 % of nominal voltage ⁽¹⁾
Peak Voltage (Vpk)	1...1400Vpk	1V	5% of nominal voltage
Half Cycle RMS Voltage (Vrms½)	1...1000V Phase to neutral line	0.1V	±0.2% of nominal voltage
Fundamental Voltage (Vfund)	1...1000V Phase to neutral line	0.1V	±0.1 % of nominal voltage
Voltage Peak Coefficient (CF)	1.0...>2.8		0.01±5%
Effective Current (Arms) (AC only)	ZRC150	5...3000A (AC only)	±0.5% ±5 counts ⁽²⁾
	SRC250	10...6000A (AC only)	
	SRC250-50mV	20...10000A (AC only)	
Peak Current (Apk)	ZRC150	4200 Apk	1 Arms ±5%
	SRC250	8400 Apk	
	SRC250-50mV	14000 Apk	
Current Peak Coefficient (CF)	1...10		0.01±5%
Arms½	ZRC150	5...3000A (AC only)	0.1A 1A 1A ± 1% ± 10 counts
	SRC250	10...6000A (AC only)	
	SRC250-50mV	20...10000A (AC only)	
Fundamental Current (Afund)	ZRC150	5...3000A (AC only)	0.1A 1A 1A ±0.5% ±5 counts
	SRC250	10...6000A (AC only)	
	SRC250-50mV	20...10000A (AC only)	
Frequency (Hz)	42 .5 to 57 .5Hz/51 to 69Hz	0.001Hz	±0.01 Hz

(1) The nominal voltage is in the range of 100V to 690V: Also known as Udin.

(2) ±0.5% ±5 counts: Accuracy of the flexible coil near the center.

Power

Function	Measuring Range	Resolution	Precision
Power (VA, Var)	ZRC150	Max 600MW	0.01kW ± 1% ±10 counts
	SRC250	Max 1200MW	
	SRC250-50mV	Max 2000MW	
Frequency (Hz)	42 .5 to 57 .5Hz/51 to 69Hz	0.001Hz	±0.01 Hz

Electricity

Function	Measuring Range	Precision
Power (VA, Var)	Depends on clamp scaling and nominal voltage	±1% ± 10 counts
Energy Loss	Depends on clamp scaling and nominal voltage	±1%±10 counts, Excluding line resistance accuracy

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Harmonic

Function	Measuring Range	Resolution	Precision
Harmonic order (n)	DC, 1..50 grouping: Harmonics are grouped according to IEC61000-4-7		
Voltage %f	0.0...100.0%	0.1%	$\pm 0.1\% \pm n \times 0.1\%$
Voltage %r	0.0...100.0%	0.1%	$\pm 0.1\% \pm n \times 0.4\%$
Absolute Voltage	0.0...1000V	0.1V	$\pm 5\%^{(4)}$
Total Harmonic Distortion of Voltage (THD)	0.0...100.0%	0.1%	$\pm 2.5\%$
Current %f	0.0...100.0%	0.1%	$\pm 0.1\% \pm n \times 0.1\%$
Current %r	0.0...100.0%	0.1%	$\pm 0.1\% \pm n \times 0.4\%$
Absolute Current	3.0...3000A	0.1A	$\pm 5\% \pm 5$ counts
Total Harmonic of Distortion Current (THD)	0.0...100.0%	0.1%	$\pm 2.5\%$
Power %for %r	0.0...100.0%	0.1%	$\pm n \times 2\%$
The Absolute Power	Depends on clamp scaling and nominal voltage		$\pm 5\% \pm n \times 2\%$ ± 10 counts
Total Harmonic Distortion of Power (THD)	0.0...100.0%	0.1%	$\pm 5\%$
Phase	-360° ... 0°	1°	$\pm n \times 1^\circ$

(4) The nominal voltage is in the range of 1 DOV to 690V; Also known as U_{dn}.

Interharmonic Order

Function	Measuring Range	Resolution	Precision
Interharmonic order (n)	1...50 Grouping: Interharmonic subgroups according to IEC 61000-4-7		
Voltage	100%/1000V	0.1%/0.1mV	>1% nominal voltage ⁽²⁾ : of reading $\pm 2.5\%$ <1% nominal voltage ⁽¹⁾ : ± 0.025 nominal voltage ⁽²⁾
Current	100%	0.1A (ZRC150, AC Only)	>3% nominal Current: of reading $\pm 2.5\%$ <3% nominal Current: Nominal Current $\pm 0.15\%$
		1A (SRC250\SRC250-50mV, AC Only)	

(1) AC voltage resolution reaches 0.01 V, DC voltage reaches 0.1 V.

(2) The nominal voltage is in the range of 1 DOV to 690V; Also known as U_{dn}.

(3) $\pm 0.5\% \pm 5$ counts: Accuracy of the flexible coil near the center.

Flicker

Function	Measuring Range	Resolution	Precision
Plt. Pst. Pst (1 minute), Pin st	0.00...20.00	0.01	$\pm 5\%$

Unbalanced

Function	Measuring Range	Resolution	Precision
Voltage%	0.0...20.0%	0.1 %	$\pm 0.1 \%$
Current%	0.0...20.0%	0.1 %	$\pm 1 \%$

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Trend Chart Record

Function	Measuring Range
Methods	Automatically record the minimum, maximum and average values relative to time for all three phase and neutral line readings displayed simultaneously.
Sampling	Continuous sampling of 5 readings per second per channel. up to 100/120 readings per second per channel for half cycle values and PINST.
Recording Time	2 minutes up to a maximum of 7 days, user optional (default setting is 7 days).
The Average Time	1sec to 60min, user selectable (Default is 1 sec). 10 minutes when using monitoring mode.
Memory	Data storage on SD card (built-in 64GB, maximum expandable to 256GB).
The Event	Listed in the event list. including 50/60 wave cycles and 7.5 second half-cycle voltage RMS and current trend charts.

Mobile App & Software

Major Tech offer three distinct types of software for the MT795: PC software, mobile app software, and web platform software. Each is an independent program designed for a specific purpose.

POWER-X Mobile Phone APP



The mobile app supports basic data viewing and analysis. It does not connect directly to the meter, instead, it retrieves data from a cloud server that receives uploads from the MT795 via a network interface. This setup allows you to monitor and analyse data remotely. While the cloud may display readings a few seconds behind the meter itself, the app's main purpose is remote access, if you were physically at the meter, you would simply read the display in real time.

PC Software

It supports USB connection to a PC for real-time acquisition and analysis of measurement data. It also allows downloading and analysing data stored on the MT795 by connecting to it via USB. Therefore, it is intended for use while physically near the meter.

Web Platform Software

Users can access the software through a PC browser. It does not connect directly to the MT795. Instead, it retrieves data from a cloud server, which receives uploads from the MT795 via a network interface. As a result, it can be used remotely, without needing to be near the MT795. The platform offers advanced data viewing and power quality analysis, including evaluation of whether power quality meets relevant standards.

Included Accessories

- Trolley case
- Lithium battery, battery cell 18650 Lithium battery 2 series 2 parallel configuration (7.4V 5200mAh x 2pcs)
- Pen type test probes (CAT III 1000V x 5pcs)
- Crocodile clips (CAT III 1000V x 5pcs)
- Voltage input test cable (flat 4-plugs, CAT III 1000V)
- Single voltage input test line (CAT III 1000V)
- Magnetic Absorption Test Heads:
 - Green x 1 (346U)
 - Black x 1
 - Red x 3
- Hanging strap
- Instruction manual
- USB cable (Type-C, 90cm)
- Packaging accessories: SD card (64G, Class10)
- Power adapter: 15V/2.4A DC with US/EU/UK/AU interchangeable plugs
- Flexible coil (3000A):
 - Perimeter: 535mm
 - Inner diameter: 150mm
 - Quantity: 4 pcs

Optional Accessories

MTAC6K - 6000A Flexible current probes:

- Perimeter: 880 mm
- Inner diameter: 250 mm
- Sold Individually

MTAC10K - 10,000A Flexible current probes:

- Perimeter: 880 mm
- Inner diameter: 250 mm
- Sold Individually

MTAP795 - Distribution Board Power Supply

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