MarMonix
Promote your assessment

Product Datasheet

MPQ-300

Power Quality Analyzer

Optional:

Overview:

MPQ-300 power quality analyzer is the professional portable device to measure and analyze the power system quality, supply the harmonics analysis and power quality data analysis, also providing big memory for data storage, which is used to make the long-term logger measuring to power system. The PC software can simply upload the data to PC for full analysis.

Features:

Waveform real-time display (4 Voltages/ 4 currents)

Half—period RMS measurement (voltage and current)

Measurement of TRMS currents up to 5000A (sensor dependent), Measurement, Calculation and display of harmonics and inter harmonics up to 50 times

Transient capture, Flicker, Inrush Current, and Three-phase unbalance (voltage and current)

Active power, reactive power, apparent power and energy, shift power factor and true power factor

Detection and record of Dips & Swells, Voltage rapid change, Interruption

Detect according to EN50160 or grid with user-defined limit

Data storage and screenshots (can be replayed or output to PC), Built– in 8G memory card

Through the LAN interface PC can keep real-time remote communication with Analyzer, operate Analyzer and read back measurement data

Color TFT LCD Screen, 5.6 inch with 320 × 240 resolution, and Adjustable Brightness

USB Cable and LAN Interface with 128 MB flash memory, and Standard 8G TF Card Memory

262 × 173 × 66mm Dimensions weighs 1.6 kg

Works properly in 0˚C ~ 40˚C (Storage Temperature: -20˚C ~ 60˚C) and 90% relative Humidity and with 90 ~ 264V power supply

Standards: IEC61000-4-30 Class-S, EN50160, IEC61000-4-15, IEC61000-4-7

Electrical Safety: IEC610101, Safety Degree: 600V CAT IV 1000V CAT III

With Max. voltage at Current Input 42Vpk

	MPQ-310	MPQ-311	MPQ-320	MPQ-321	MPQ-322	MPQ323	MPQ-340	MPQ-350	MPQ360	MPQ370
Appearance										
Primary Current Rating	3000A	5000A	○	o	o	o	o	o	o	o
Output Voltage Ratio	65mV/1000A	50mV/1000A	10mV/A	10mV/A	1mV/A	1mV/A	o	o	o	o
Measurement Range	15A~3000A	20A~5000A	5A	50A	100A	1A~1000A	o	o	o	o
Accuracy	±1% + Position Error	±1% + Position Error	0.20%	0.20%	0.20%	1%	o	o	o	o
Maximum Allowable Input	100KA	100KA	○	o	o	o	o	o	o	o
Phase Error	<±1˚	<±1˚	○	o	o	o	o	o	o	o
Noise	<2mVrms (10Hz~10KHz)	<2mVrms (10Hz~10KHz)	○	o	o	o	o	o	o	o
Frequency Characteristic	10Hz~10KHz (-3dB)	10Hz~10KHz (-3dB)	45Hz~55Hz	50Hz~400Hz	50Hz~400Hz	40Hz~100Hz	o	o	o	o
Weight	130g	130g	○	o	o	o	o	o	o	o
Length	200cm	200cm	○	o	o	o	o	o	o	o
CT Perimeter	50cm	50cm	○	o	o	o	o	o	o	o
Measurement Position Error	±2%	±2%	○	o	o	o	o	o	o	o
Safety	○	○	○	o	o	CAT III 600V	o	o	o	o
Clamp Radius	○	○	8mm	8mm	13mm	52mm	o	o	o	o
Dimensions	○	○	158 × 43 × 24	171 × 46 × 27	174 × 52 × 27	111 × 216 × 45	o	o	o	o

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Voltage/Current/ Frequency		measurement range	Accuracy
Vrms (AC+DC)		1~1000 Vrms	±0.5% of nominal voltage
Vpk		1~1400Vpk	±0.5% of nominal voltage
V(crest factor)		1.0~2.8	±5%
Arms(AC)	10mV/A	0~100A	±0.5% ±0.2A
	1mV/A	1~1000A	±0.5% ±0.2A
	50mV (65mV)/ 1000A	15~5000A	± 1% ± 2A
A(Crest Factor)		1~10	±5%
Frequency		42.5~57.5Hz (50Hz nominal)	± 0.01Hz
		51~69Hz (60Hz nominal)	± 0.01Hz
		340~460Hz (400Hz nominal)	± 0.1Hz

Dips & Swell		
Vrms1/2	0~200% of nominal voltage	±1%
Arms1/2	1~3000A	±1% ± 2A
Threshold level	Threshold is settable according to nominal voltage percentage	
	Detectable events type: Dips, swells, Interruption, Voltage Rapid Change	
Durations	hour-minute-second -microsecond	1 cycle

Harmonic		
Harmonic Number	1~50	
Inter-Harmonic	1~49	
Harmonic Voltage	0.0~100.0%	±0.1% ± nx0.1%
Harmonic Current	0.0~100.0%	±0.1% ± nx0.1%
THD	0.0~100.0%	±2.5%
DC Relative	0.0~100.0%	±0.2%
Frequency	0~3500kHz	1Hz
Phase	-360~0	± nx 1.5˚

Power and Energy		
Active Power/ Apparend Power/ Reactive Power	1.0~20.0MW	±1.5 ± 10 counts
KWh	0.00kWh~200GWh	±1.5 ± 10 counts
Power Factor	0~1	±0.03

Wire Combination	
1Φ + NEUTRAL	Single phase with neutral
1Φ SPLIT PHASE	Split phase
1Φ IT NO NEUTRAL	Single phase system with two phase voltages without neutral
3Φ WYE	3-phase 4-wire system Y-type
3Φ DELTA	3-phase 3-wire system delta (DELTA)
3Φ IT	3-phase Y-type without neutral
3Φ HIGH LEG	4-wire 3-phase delta system (DELTA) with center tapped high leg
3Φ OPEN LEG	open-delta (DELTA) 3-wire system with two transformer windings
2-ELEMENT	3-phase 3-wire system without current sensor on phase L2/B (2 Watt meter method)
2 1/2-ELEMENT	3-phase 4-wire system without voltage sensor on phase L2/B

Unbalance	Measurement Range	Accuracy
Voltage	0.0 ~ 5.0%	±0.5%
current	0.0 ~ 20.0%	±1%
Voltage Phase	-360˚ ~ 0˚	±2 counts
Current Phase	-360˚ ~ 0˚	±5 counts

Logger	
Recording	user - defined parameters for 4 phases at the same time
Duration	2hrs to 1 year
Interval	1s to 1 hrs

Flicker		
Pst(1min), Pst, Plt, PF5	0.00~20.00	±5%

Inrush Current		
Arms(AC+DC)	0 ~ 3000 Arms	±1% ±5 counts
Inrush Duration	6s ~ 32min selectable	±20ms

Voltage Transient		
Vpk	6000 Vpk	±15%
Vrms	10 ~ 1000 Vrms	±2.5%
Min. Test time	50µs	o
Sampling Rate	20kS/s	o