

APQM-711 Analyzer
Electric power quality meter



APQM-711 Analyzer

High technology equipment for universal measurement

Analysis and recording of the parameters of the electric networks of 50/60 Hz

The analyzer meets the requirements of EN 50160 and EN 61000-4-30: 2011 class A

amperis

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The APQM-711 electric power quality analyzer is a high-tech equipment that allows the measurement of the quality of the electric power, the analysis and the registration of the parameters of the electric networks of 50/60 Hz and in accordance with European standard EN 50160 on the specific operating conditions of the electro-energy system. The analyzer fully complies with the requirements of EN 61000-4-30: 2011 class A.

The device is designed to work with networks:

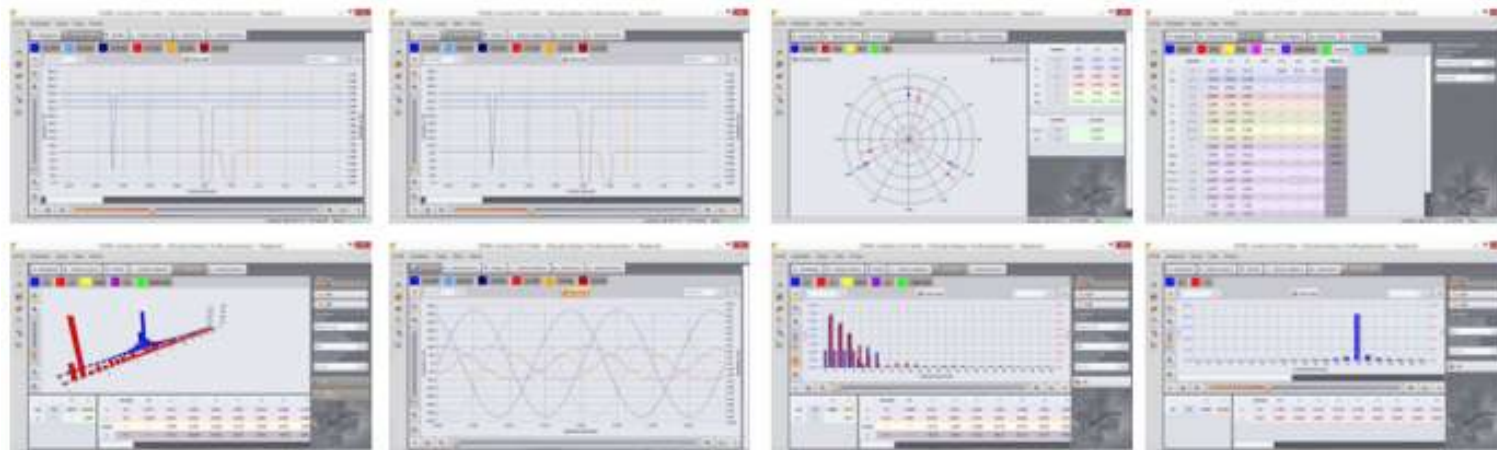
- With nominal frequency 50/60Hz,
- With nominal voltage: 64/110 V; 110/190 V; 115/200 V; 127/220 V; 220/380 V; 230/400 V; 240/415 V; 254/440 V; 290/500 V; 400/690 V
- DC network

Supported networks:

- Single-phase
- Two-phase with common N conductor
- Three-phase star connection with and without N conductor
- Three-phase delta

Possible measurements:

- Measurements according to EN 50160
- Voltage L1, L2, L3, N-PE : average, minimum, maximum and instantaneous values, range to 760V, ability to work with voltage transformers
- Current L1, L2, L3, N (four inputs): average, minimum, maximum and instantaneous values, measurement current with range to 3 kA (depends on used clamp), ability to work with current transformers
- Crest factor for voltage and current
- Frequency from 40Hz to 70Hz
- Active, reactive, distortion, apparent power, including the type of reactive power (capacitive, inductive)
- Power recording: Budeanu method, IEEE 1459
- Active, reactive, apparent energy
- Power factor, $\cos \varphi$ $\tan \varphi$
- K factor (transformer overload caused by the harmonics)
- Up to 50th harmonics for voltage and current
- Total Harmonic Distortion (THD) for voltage and current
- Short-term (PST) and long-term (PLT) flicker
- Unbalance of voltage and current
- Current events detection including waveforms recording
- Current and voltage waveforms recording after each averaging period
- Mains signalling up to 3000 Hz
- Transients up to ± 6000 V, max 10 MHz, minimal transient capturing time is 650 ns
- All parameters meet Class A acc. IEC 61000-4-30 standard



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Specification		Range	Resolution	Accuracy
AC voltage (TRMS)	-	0,0...760,0V	0,01 % Unom	±0,5% U nom
Crest Factor	Voltage	1,00...10,00 (1,65 for 690 V voltage)	0,01	±5%
	Current	1,00...10,00 (3,6 Inom)	0,01	± 5% m.v.
AC current TRMS	-	depending on clamp*	0,01 % of nominal range	±0,1% of nominal range (add clamps accuracy)
Frequency	-	40,00...70,00 Hz	0,01Hz	±0,01 Hz
Active, reactive, apparent and distortion power	-	depending of configuration (transformers, clamp)	up to 4 decimal places	depends on configuration (transformers, clamp)
Active, reactive apparent energy	-	depending of configuration (transformers, clamp)	up to 4 decimal places	the same as above
cosφ and power factor (PF)	-	0,00...1,00	0,01	±0,03
Tgφ	-	0,00...10,00	0,01	depends on Active and Reactive power accuracy
Harmonics	Voltage	same as for AC voltage TRMS	same as for AC voltage TRMS	±5%hU for Uh ≥ 1% Un ±0,05% nU for Uh < 1% Un
	Current	same as for AC current TRMS	same as for AC current TRMS	± 5% I h for Ih ≥ 3% In ± 0,15% I n for Ih < 3% In
Total Harmonics Distortion	Voltage	0,0..100,0%	0,1%	±5%
	Current			±5%
Harmonics active and reactive power	-	depends on configuration (transformers, clamp)	depends on current and voltage minimum value	-
Angle between voltage and current harmonics	-	-180,0...+180,0o	0,1°	±(hxo1)
K-Factor	-	1,0...50,0	0,1	±10%
Flicker	-	0,20...10,00	0,01	±5%

Specification		Range	Resolution	Accuracy
Unbalance	Voltage and Current	0,0...20,0%	0,01 % Unom	±0,15% (absolute error)
Mains signalling	Voltage	depending on clamp*	0,01 % of nominal range	±0,15% hU for 1...3% Uh, 5% Un for 3...15% Uh
Transients (max. 10 MHz)		±8000 V	5V	±(5% + 25 V)

*Clamp F-1/F-2/F-3: 0..3000 A (10000 Ap-p) *Clamp C-4: 0..1000 A (3600 Ap-p) *Clamp C-5: 0..1000 A (3600 Ap-p) *Clamp C-6: 0..10 A (36 Ap-p) (without current transformers) *Clamp C-7: 0...100 A (360 Ap-p)

Available with other configurations



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