

HV Power hints and tips: PQ-Box Power Quality Recorder

Issue 15

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[WinPQ mobil V4.1.0.1]

Max/Min recording

The PQ-Box 100/150/200 & 300 feature a range of max/min “permanent” recording values. The method of time stamping of these max/min values can be different, the following table summarises the methods.

N sec Data	Value	PQ-Box type	Note	Time stamp
Frequency	Mean	All	[1]	End of interval
	Max	All	[2]	At time of maximum
	Min	All	[3]	At time of minimum
	F (10s)	All	[4]	Each 10 seconds
Voltage	U eff max (10 ms)	All	[5]	At time of maximum
	U eff min (10 ms)	All	[6]	At time of minimum
	U ripple control signal (200 ms)	All	[7]	At time of maximum
	U Max (200 ms) harmonics	150/200/300		End of interval
	Supraharmonics 9kHz-170 kHz [2 kHz] “min”	300		End of interval
	Supraharmonics 9kHz-170 kHz [2 kHz] “max”	300		End of interval
Current	I eff max (10 ms)	All		At time of maximum
	I eff min (10 ms)	All		At time of minimum
	I Max (200 ms) harmonics	150/200/300		End of interval
Power	Real power max (200 ms)	All		End of interval
	Real power min (200 ms)	All		End of interval
	Apparent power max (1s)	All	[8]	End of interval
	Apparent power min (1s)	All	[8]	End of interval
	Reactive power max (1s)	All	[8]	End of interval
	Reactive power min (1s)	All	[8]	End of interval

1. Average of all '10 cycle averages' measured during measuring interval. Measured via Voltage Lead L1. Uses reduced measuring window if measuring interval less than 10 seconds
2. Max 10 cycle value during measuring interval. Measured via Voltage Lead L1. Uses reduced measuring window if measuring interval less than 10 seconds
3. Min 10 cycle value during measuring interval. Measured via Voltage Lead L1. Uses reduced measuring window if measuring interval less than 10 seconds
4. F (10s) Frequency is reported each 10 seconds (i.e. each 1/2 cycle). Measured via Voltage Lead L1. Reporting interval fixed at 10 seconds, and does not vary for different measuring intervals
5. Maximum 10 ms RMS value during measuring interval
6. Minimum 10 ms RMS value during measuring interval
7. Ripple control signal level (200 ms maximum level during measuring interval). Expressed as percentage of the nominal voltage setting
8. Was 200 ms maximum's in earlier firmware/software