








PQ-Box 100/150/200 Comparison

15-1-2018

	PQ-Box 100	PQ-Box 150	PQ-Box 200	PQ-Box 300
				
Physical	200 x 146 x 57 mm 1.7 kg IP 65	200 x 181 x 40 mm 1.0 kg IP 65	242 x 181 x 50 mm 2.5 kg IP 65	242 x 181 x 50 mm 2.5 kg IP 65
Rating	Cat III = 600 V Cat IV = 300 V	Cat III = 1000 V Cat IV = 600 V	Cat III = 600 V Cat IV = 300 V	Cat III = 600 V Cat IV = 300 V
Impulse voltage	Not specified	12.8 kV (7.4 kV for 5 sec)	Not specified	6 kV (5.4 kV for 5 sec, 3.6 kV for 1 minute)
A/D	24 Bit, 10 kHz sampling	24 Bit, 20 kHz sampling	24 Bit, 40 kHz sampling	24 Bit, 40 kHz sampling. Plus 20 MHz sampling for harmonic voltages.
Online Spectrum Oscilloscope FFT	DC to 5 kHz	DC to 10 kHz	DC to 20 kHz	DC to 20 kHz 8 kHz to 170 kHz for FFT
Versions	Basic, Light, Expert options	Expert only	Expert only	Expert only
2 kHz to 9 kHz harmonic	No	Option B1 (adds 50 <sup>th</sup> to 200 <sup>th</sup> harmonics in 200 Hz groupings)	Option B1 (adds 50 <sup>th</sup> to 200 <sup>th</sup> harmonics in 200 Hz groupings)	Standard
Ripple Control Recorder	Optional	Optional	Optional	Optional
Transient	10 kHz sampling	20 kHz sampling	40 kHz and optional 2 MHz voltage transient card	T.B.C
Low voltage input (Channel 5)	No	No	Yes	Yes
External Trigger input	No	No	Yes	Yes
Data classes <sup>[1]</sup>	1. User defined measurement period 1 second to 30 minute 2. Plus also power measurements duplicated at 10, 15 or 30 minute interval 3. Plus, oscilloscope, RMS recorder, online views and optional ripple control recorder	Same as PQ-Box 100, plus: a. Wide range of selected 200 ms values b. Wide range of selected 3 second values	Same as PQ-Box 100, plus: a. Wide range of selected 200 ms values b. Wide range of selected 3 second values	Same as PQ-Box 100, plus: a. Wide range of selected 200 ms values b. Wide range of selected 3 second values
Other measurements		User defined measuring interval also includes <ul style="list-style-type: none"> <li>Harmonic voltage 200 ms maximum values (thus average and max values during each recording interval are available).</li> <li>Harmonic current, 200 ms maximum values (thus average and max values during each recording interval are available).</li> </ul>	User defined measuring interval also includes <ul style="list-style-type: none"> <li>Harmonic voltage 200 ms maximum values (thus average and max values during each recording interval are available).</li> <li>Harmonic current, 200 ms maximum values (thus average and max values during each recording interval are available).</li> </ul>	User defined measuring interval also includes <ul style="list-style-type: none"> <li>Harmonic voltage 200 ms maximum values (thus average and max values during each recording interval are available).</li> <li>Harmonic current, 200 ms maximum values (thus average and max values during each recording interval are available).</li> </ul>

		<ul style="list-style-type: none"> <li>• Harmonic Voltage phase angle</li> <li>• Voltage Harmonics 2-9 kHz (in 200 Hz bands)*.</li> <li>• Current Harmonics 2-9 kHz (in 200 Hz bands)*.</li> </ul> <p><i>*Only with order option B1</i></p>	<ul style="list-style-type: none"> <li>• Harmonic Voltage phase angle</li> <li>• Voltage Harmonics 2-9 kHz (in 200 Hz bands)*.</li> <li>• Current Harmonics 2-9 kHz (in 200 Hz bands)*.</li> </ul> <p><i>*Only with order option B1</i></p>	<ul style="list-style-type: none"> <li>• Harmonic Voltage phase angle</li> <li>• Voltage Harmonics 2-9 kHz (in 200 Hz bands).</li> <li>• Current Harmonics 2-9 kHz (in 200 Hz bands).</li> <li>• Voltage Harmonics 8-170 kHz (in 2 kHz bands).</li> </ul>
Display	Monochrome – text	Colour – with graphics	Colour – with graphics	Colour – with graphics
Memory	2 GB	4 GB, user replaceable card – up to 32 GB possible	4 GB, user replaceable card – up to 32 GB possible	8 GB, user replaceable card – up to 32 GB possible
Fast download	USB 2 (10 MB per minute)	USB 2 (125 MB per minute) 'USB Disk mode' – very high speed Ethernet (37 MB per minute)	USB 2 (33 MB per minute) 'USB Disk mode' – very high speed Ethernet (25 MB per minute)	USB 2 (33 MB per minute) 'USB Disk mode' – very high speed Ethernet (25 MB per minute) Wi-Fi speed to be confirmed
Interface	USB 2.0	USB 2.0 Ethernet	USB 2.0 Ethernet	USB 2.0 Ethernet <i>Wi-Fi (optional)</i>
Lock function	1. Front panel key lock – for protection against accidental button press	1. Front panel key lock – for protection against accidental button press 2. Four digit pin to lock keypad and disable USB/Ethernet interface	1. Front panel key lock – for protection against accidental button press 2. Four digit pin to lock keypad and disable USB/Ethernet interface	1. Front panel key lock – for protection against accidental button press 2. Four digit pin to lock keypad and disable USB/Ethernet interface
Battery	20 seconds	6 hours Start from battery power possible	6 hours	3.5 hours
Voltage Leads	Fixed. 7 double insulated with 4 mm banana plugs (stackable). 4 x Fuse lead adapter supplied	Fixed. 5 double insulated leads with 4 mm banana plugs with in-built fuses	Fixed. 5 double insulated leads with 4 mm banana plugs with in-built fuses	Fixed. 5 double insulated leads with 4 mm banana plugs with in-built fuses
Aux Power	Via black AUX leads: 100 – 280 Vac 140 – 240 Vdc	Separate power pack (15 Vdc output to PQ-Box): 88 – 440 Vac 100 – 300 Vdc  <i>IP 65 rated, Cat IV = 600 V -20 to +70 deg C 12 kV impulse rated Connected via fused 4mm banana plugs</i>	Separate power pack (15 Vdc output to PQ-Box): 88 – 440 Vac 100 – 300 Vdc  <i>IP 65 rated, Cat IV = 600 V -20 to +70 deg C 12 kV impulse rated Connected via fused 4mm banana plugs</i>	Separate power pack (15 Vdc output to PQ-Box): 88 – 440 Vac 100 – 300 Vdc  <i>IP 65 rated, Cat IV = 600 V -20 to +70 deg C 12 kV impulse rated Connected via fused 4mm banana plugs</i>
CT's	Same CT accessories can be used with all versions			
Software	Same WinPQ mobil software is used with all versions			

[1] Refer to manual or HV Power's 'Measurement Detail' document for further information on what each device can record.