

PQ (1/2NB/2WB/3)

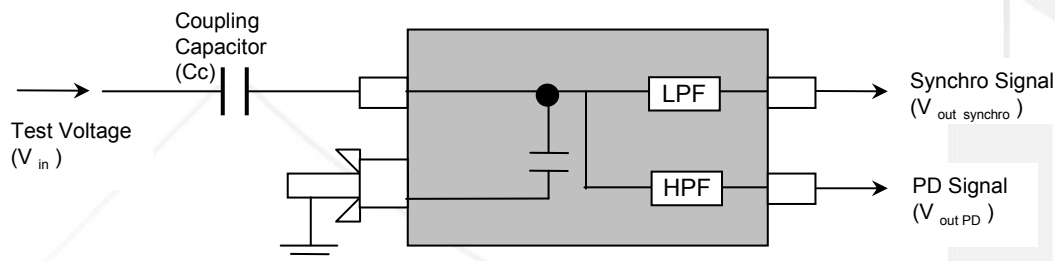


TechImp PQ is a family of quadrupole devices designed for partial discharge measurements on site and in factory. Used as detection sensor with TechImp PD systems (Solver/Base/Monitor), PQ provides both synchronization and PD signals. PQ is connected to an external coupling capacitor (C_c), for instance a joint/bushing capacitive tap or a TechImp Direct Coupler sensor applied on a cable under test.

PD signal is filtered through a High Pass Filter while the synchronization signal is filtered through a Low Pass Filter, which allows test voltage rejection.

PQ can be applied for on/off line PD test ; its PD sensitivity (attenuation factor) depend on the line voltage frequency.

The four kinds of standard available devices : PQ1, PQ2NB, PQ2WB, PQ3 differ one from another for the value of the coupling capacitor they can be connected to; this is done in order to obtain the needed ratio between the input voltage (V_{in}) and the synchronization output voltage ($V_{out\ syncro}$).



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Specifications

	Coupling capacitor (C _c) [nF]	Phase shift (Vout synchro vs Vin)	Vin for synchro out [kV]	Max Vin allowed [kV]	High Pass cut frequency (-6dB) [kHz]	Attenuation (with C _c)		
						20Hz	50Hz	200Hz
PQ1	0,1	< 1°	2	>200	70	> 130 dB		
PQ2 wide band 50ohm output	1	< 1°	1.1	100	105	> 130 dB		
	0.5	< 1°	2.1	200	105			
	2.5	< 1°	0.42	40	105			
	5	< 1°	0.22	20	105			
PQ3	40	-(89 ÷ 90)	0,25	20	170	> 130 dB		
PQ2 narrow band mismatched output	1	< 1°	1.1	100	125	> 130 dB		
	0.5	< 1°	2.1	200	125			
	2.5	< 1°	0.42	40	125			
	5	< 1°	0.22	20	125			

Overall PQ family dimensions : 170 mm x 80 mm x 55 mm