Datasheet

Quadrupole devices for partial discharge detection

Techimp PQ

Techimp PQ are quadrupole devices designed for partial discharge detection for both site and factory. They provide both voltage reference synchronization signal (SYNC) and partial discharge signals (PD OUTPUT). The device in its standard configuration it is connected to a coupling capacitor (Cc).

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.

Three standard PQ are available: PQ0, PQ1 and PQ2, they 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 at the coupling capacitor (Vin) and the SYNC voltage (Vout synchro).

Specifications

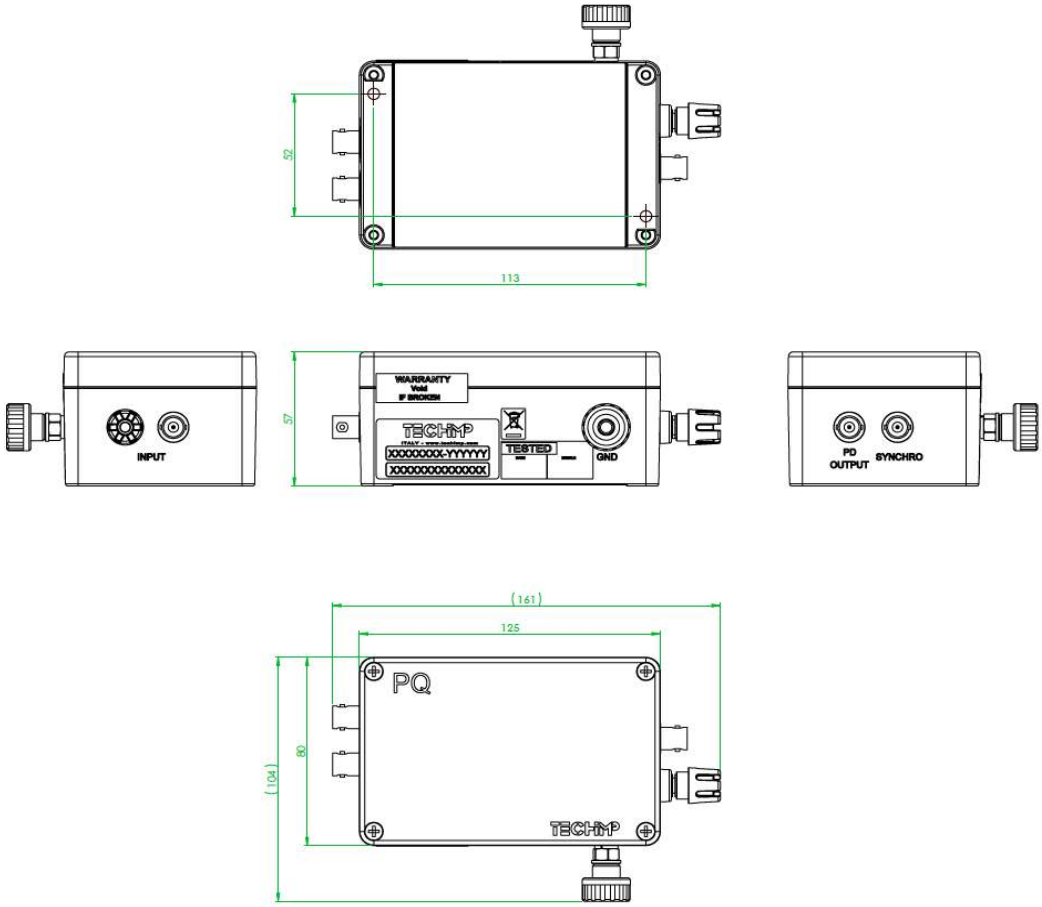
	Coupling capacitor (C_c) [nF]	Phase shift (Vout synchro vs Vin)	Vin for synchro out [kV]	Max Vin allowed [kV]	High Pass cut frequency (-6dB) [kHz]	Internal impedance (nominal)	Attenuation (with C_c)		
							20Hz	50Hz	200Hz
PQ0	n.a.	0° *	n.a. **	>200	70	Absent	> 130 dB		
PQ1	0,1	< 1°	2	>200	70	100nF	> 130 dB		
PQ2	1	< 1°	1.1	100	105	1uF	> 130 dB		

* Phase shift value in this case is intended as the phase angle introduced by the quadrupole between input and output channels.

** Not available. Partition ratio is not fixed by the quadrupole. Low voltage impedance is included in the coupling capacitor.

PQ Line

Overall PQ family dimensions :



Custom Quadrupole can be designed upon request.

Suitable For

HVAC CABLE | MVAC CABLE | HVDC CABLE | MOTOR | GENERATOR | GIS GIL GIB | SWITCH BOARDS | HV TRAFO | MV TRAFO | TA/TV

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