

Capacitive Divider 100kV



Description

Capacitive Divider is an high voltage divider designed for partial discharge measurements.

Its tight specifications make it ideal for laboratory measurement.

It contains two capacitors, one on the high voltage and the other on the low voltage. The high voltage capacitor (C_c) gives the high voltage withstand capability.

A measurement quadrupole is also mounted on the steel frame. This quadrupole offers two outputs: the first one carries out the reference signal (also called SYNCHRO) which is 1/1000 of the high voltage applied on the top. The second one carries out the high frequency signal (PD).

An high pass filter (HPF) is embedded in the quadrupole in order to reject the 50Hz (or 60Hz) and maximize the signal-to-noise ratio of the high frequency output.

Similarly, a low pass filter (LPF) is embedded across the path of the SYNCHRO output in order to minimize the interference between the high and low frequency sections.

The coupling capacitor is guaranteed to be PD free ($<2\text{pC}$) up to the rated voltage within the industrial frequency range (50-60Hz).

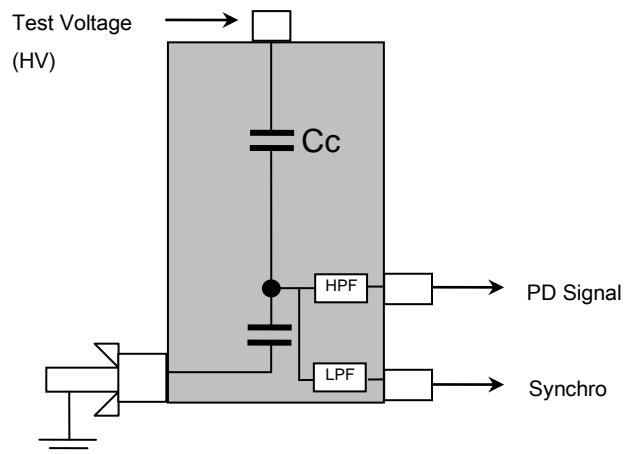
Features

High voltage standard capacitance is 1nF making it suitable to match test objects up to 100pF (as per IEC directive).

The castors on the base allow an easy shift within the working area. The castors are lockable.

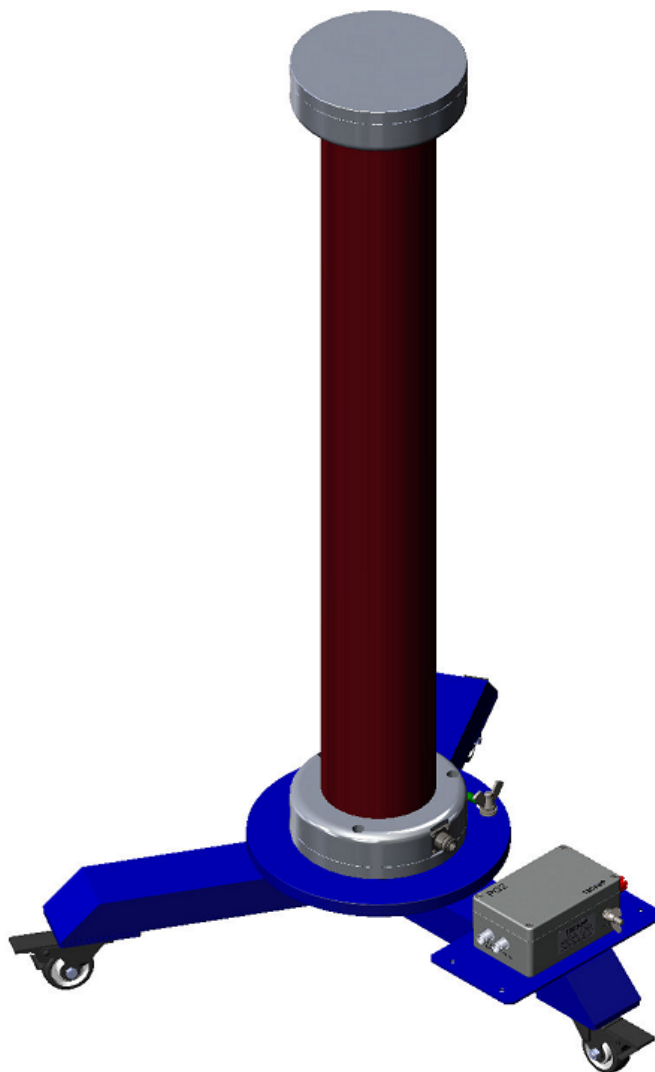
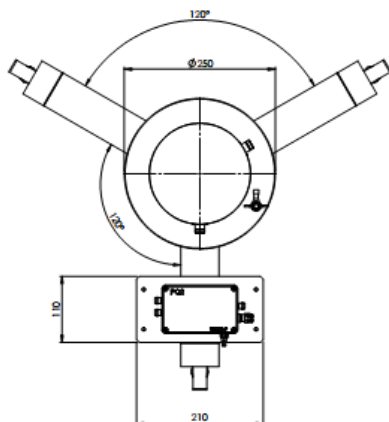
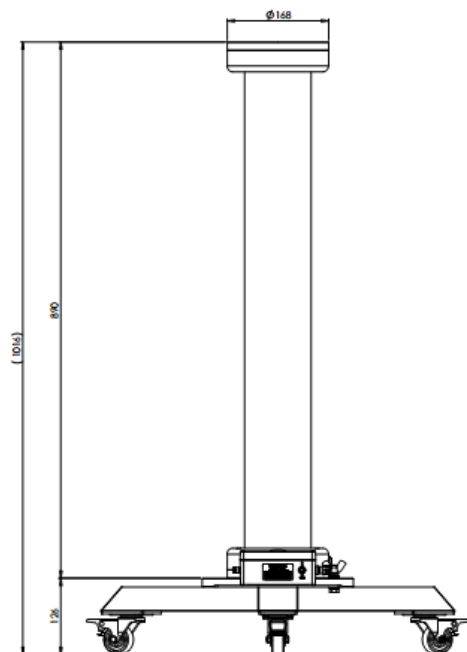
The body of the capacitor is made of epoxy resin while the base is made of steel. Corona shield is bulky aluminum.

Other capacitance value are available on request, as well as other nominal voltages.



SPECIFICATIONS

Rated Voltage	100kV _{rms}
Short term withstand voltage	120kV _{rms} (1min)
Operating frequency range	50 ÷ 60 Hz
Nominal Capacitance (C_c)	1nF $\pm 10\%$
Tanδ	$<0.1\%$
Type of capacitor	Polypropylene in oil
Nominal HV/LV ratio	2000:1 ($\pm 5\%$)
Operating temperature	-5° - 40°C (indoor use)
Phase shift (Synchro out vs HV applied)	$<1^\circ$ @ 50 or 60 Hz
Synchro out for 1kV applied	0.5Vrms $\pm 5\%$
50 or 60 Hz rejection	>140 dB
Weight	26,5kg



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Coupler Samgør			TS000594	