

TCL12 Coupler - 12 kV



Description

TCL12s are capacitive couplers specifically designed for partial discharge measurements.

It perfectly matches Techimp measurement units such as PDCheck, PDScope or PDBaseII systems.

Its extremely compact size makes it a good choice for on line and off line PD tests on rotating machines, for both spot measurements and permanent monitoring applications. It can be permanently installed in terminal boxes of AC power generators as well as in power supply boxes of critical power motors or inside MV bus ducts.

A BNC output termination is available on the base.

For permanent installation it must be fixed through 4 holes on the bottom flange.

It comes with a dark epoxy resin varnish which improves environmental pollution resistance.

Features

TCL12 coupler contains an internal resistor which provides a suitable dividing ratio @50Hz (as well as 60Hz) for those equipments they require a synchronization signal.

It also holds an internal overvoltage gas suppressor which keeps the output voltage below safety limits even in the presence of spikes and overvoltage transient peak on the bus bars.

TCL12 couplers are individually tested according to the following international standards: IEC60358: IEC60694: IEC60270.

Tested at high vibration level in order to assure high reliability under the most severe conditions.

It can be installed in vertical position, upside down and in horizontal position. Endurance voltage test showed an expected life (at rated voltage) in excess of 10⁶ hours, i.e. larger than the expected life of any device it should be matched to.

SPECIFICATIONS	
Capacitance	940pF ±10%
Capacitor type	Ceramic
Body material	Epoxy resin
Coating varnish	Epoxy resin
High voltage frequency range	50÷60 Hz
Rated Voltage (phase-to-phase)	12kV _{rms}
V _{OUT} @ Rated voltage	2.0V _{RMS}
High pass cut frequency (-6dB)	85kHz
AC voltage withstand	28kV _{rms}
DC voltage withstand	75kV _{peak}
Lightning pulse withstand	75kV _{peak}
Creepage distance (IEC60815)	280mm (medium level pollution)
Tan •	<0.3%
PD level @7.6kV / 50Hz	<2pC
Operative temperature range	-20 ÷ +90°C
Vibration withstand	5G or 6mm _{pp} (whatever is greater) from 5Hz to 500Hz
Moisture resistance	MIL-STD-202G / Method 106G
Salt atmosphere resistance	MIL-STD-202G / Method 101E
High voltage connection	M8 female thread
Overall Dimensions	Height 160mm; Diameter 146mm
Weight	2.0kg
Output connector	BNC





