

Partial Discharge Coupling Capacitor 12kV rms / 1000pF



Key Features

- Nominal Voltage 12kVrms
- Build in Quadrupole with voltage reference output
- Build in Overvoltage Protection
- Capacitive floating Signal output to avoid Eddy Current Loops
- Compliant to IEC60034-27-2

Applications

- Hydro Generators
- Turbo Generators
- Windmills
- Industrial Motors

PDC12-1000

General Description

The 1000pF coupling capacitor is a sensor used for online and offline partial discharge measurements on rotating machines. The sensor will be usually installed at the busbar or on the high voltage terminals of the rotating machine. Permanent or temporary partial discharge detectors / analyzers can be connected via standard RG58 BNC cables to the coupler, usually by using a termination and safety box in between.

The **PDC12-1000** has an M12 High Voltage Terminal to connect the coupler to the high voltage terminal. The cable is usually connected via cable lugs to the high voltage busbars of the rotating machine to pickup partial discharge signals without any loss. A specially designed measurement impedance located in the base of the sensor allows to pickup partial discharge signals as well as the line frequency (1:2000). This allows to transfer partial discharge signals and line frequency signal over the same cable to the partial discharge detector.

The Signal output is protected via 90V surge arrestor. The 'shield' of the coaxial output is capacitive floating through a 1uF Capacitor to avoid eddy currents in the signal cables due to high magnetic fields.

Ordering Information

Order Code:	18.0120.1000.t	1x PDC12-1000 Coupling Capacitor
	18.3120.1000.t	3x PDC12-1000, 1x TB-004, 100m Coax 6x BNC Crimp on Connectors, Installation Kit
	18.4120.1000.t	4x PDC12-1000, 1x TB-004, 100m Coax 8x BNC Crimp on Connectors, Installation Kit

Termination boxes (t): (0) TB-004, (1) TBS-003, (2) TBS-004, (3) TB-006, (4) TB-016, (x) custom
Add „h“ marking for halogenfree coaxial cable B58 (e.g. 18.3175.1000.t.h)

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Technical Data

PDC12-1000

Electrical

Nominal Voltage:	12kV rms	PD Level @ Un:	< 5pC
Capacitance:	1000pF	Voltage Divider:	1:1750
Frequency Range:	50/60Hz	Signal Output Type:	BNC female
		Ground Connection:	M6
Withstand Voltage (1min):	32kVrms		
Lightning Impulse Withstand (BIL):	72kVp	Creeping Distance (mm):	~248
(1.2/50us, 10p / 10n)			

Environment

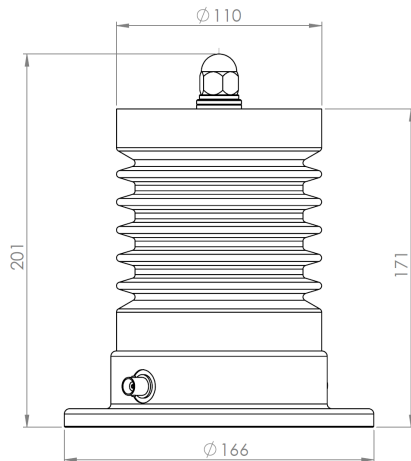
Operating Temperature Range: -20 .. +125°C

Mechanical

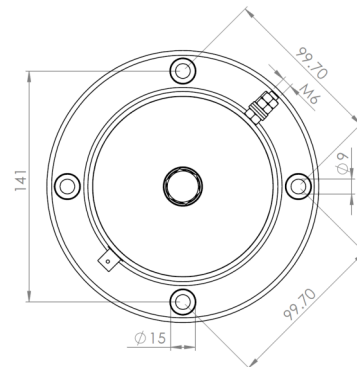
Mounting / Fixing: 4x M8 Allen Key Screws Electrical Connection: M12

Dimensions

Outline:



Fixing:



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