

# high performance UHF PD sensors

## UHF Horn Antenna

Horn antenna is a partial discharge sensor designed to receive electromagnetic (EM) emissions from a PD occurring in electric assets like GIS and GIL or MV and HV power transformers. It is a broadband antenna with a flat response which makes Horn antenna suitable in a number of different applications. It has been optimized to operate in a frequency range suitable for PD activity monitoring and it was designed to provide maximum sensitivity and high gain.

Its compact and robust design (passive sensor) makes Horn the optimal sensor for direct installation on high and medium voltage GIS/GIL and Transformers. It can be however virtually applied in any electrical equipment provided that it has apertures or EM transparent surfaces. Horn antenna can be used in conjunction with Techimp Frequency Shifters product range, specifically designed and optimized to get the best performance with Techimp PDCheck.

### Benefits

- Maintenance free
- High sensitivity and reliability
- Robust and easy to use
- Safety

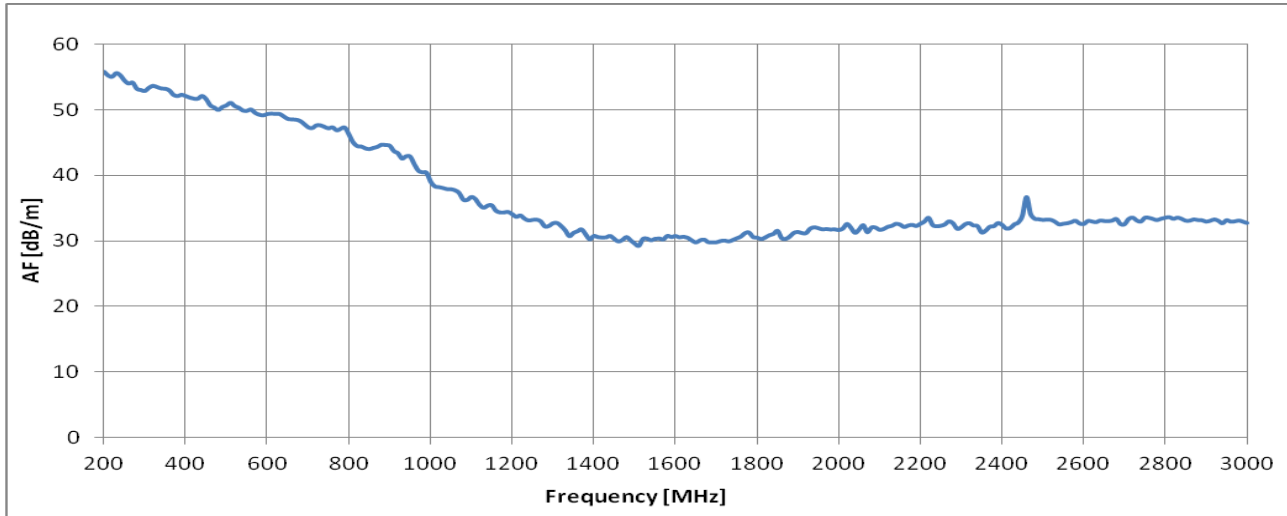


### Specifications

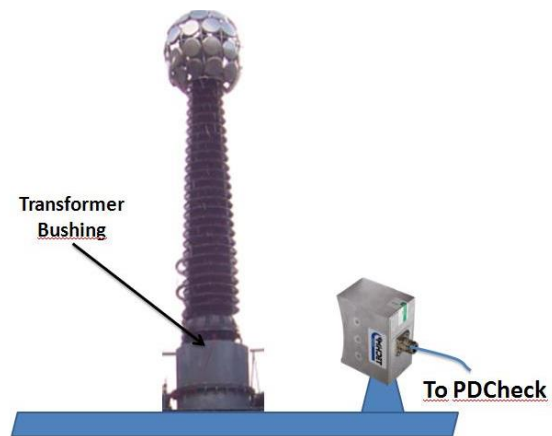
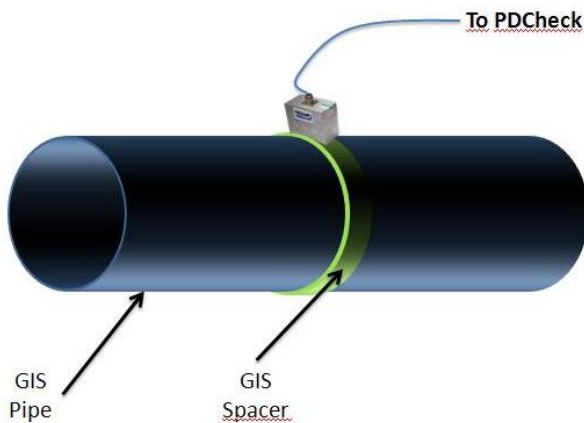
Bandwidth	500MHz – 3GHz
AF (Antenna Factor)	50 – 30 dB/m
Typical VSWR	5:1
3dB Beam width	60° - 140°
Polarization	Linear
Impedance	50 Ohm
Overall Dimensions	70mm x 100mm x 50mm
Weight	260 g
Connector	Type N
Installation	In proximity of NON-SHIELDING apertures
Operational limits	Temp: -20-650C; rh: 0-100%

# UHF – Horn Antenna

## Typical Antenna Factor Profile



## Horn Installations Specifications



<p><b>GIS/GIL:</b> Horn Antenna is preferably positioned above the EM transparent spacer of the GIS/GIL and connected to Techimp PDCheck through Techimp Frequency Shifter. Antenna must be installed as shown in the picture for optimal performance.</p>	<p><b>TRANSFORMERS:</b> Horn antenna can be positioned in close proximity to the bushing of a power transformer, and connected to Techimp PDCheck by Techimp Frequency Shifter. Antenna must be installed as shown in the picture for optimal performance.</p>
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### 👍 Suitable For

Several different sensors are available, fully compatible with Techimp Global Diagnostic platform. They can be freely combined at customer needs provided they can be applied for the specific application.

- HVAC CABLE
- MVAC CABLE
- HVDC CABLE
- MOTOR
- GENERATOR
- PWM VSD
- GIS GIL GIB
- SWITCH BOARDS
- OUTDOOR OR INSULATOR
- HV TRAF
- MV TRAF
- TA/TV

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