



HSENS-CC

Partial Discharge Capacitive Coupler

HSENS-CC

Compact and Accurate PD Detection for
Critical Assets



High Dielectric Capacitive Coupler for Reliable PD Monitoring
Rugged Monitoring's Capacitive Coupler is a highly adaptable partial discharge sensor engineered for precise PD monitoring and testing across various electrical assets, including transformers, generators, motors, and switchgear.

HSENS-CC is a compact capacitive coupler sensor engineered for accurate and efficient Partial Discharge (PD) detection and monitoring. Designed to meet the needs of modern electrical systems, this sensor is suitable for a wide range of applications, including motors, switchgear, and transformers. Built with high dielectric materials, the HSENS-CC is ideal for both temporary and permanent installations, particularly in challenging environments like busbars and terminal boxes with limited space.

Available in multiple capacitance ratings, from 1nF to 9nF, and nominal voltages up to 36kV, the HSENS-CC is adaptable to a wide range of PD monitoring systems. It is also equipped with built-in overvoltage protection and provides flexible output options (BNC/TNC connections) for seamless integration with any HF PD monitoring system, regardless of the manufacturer. With its versatile design, the HSENS-CC can be mounted either vertically or horizontally, depending on space constraints, making it highly adaptable for various industrial settings. The robust construction, compact size, and reliable performance of the HSENS-CC make it a dependable solution for ensuring electrical asset safety and operational efficiency.

» Benefits

- Enhanced Accuracy
- Minimal Operational Disruption
- Safe and Easy Installation
- Versatility in Installations
- Customizable for Various Applications

» Features

- Electrical durability and thermal resilience
- Operation free from noise and corona effects
- Designed for high-temperature, high-voltage applications
- Excellent insulation properties and mechanical strength
- Superior arc resistance properties
- Noise-free from PD

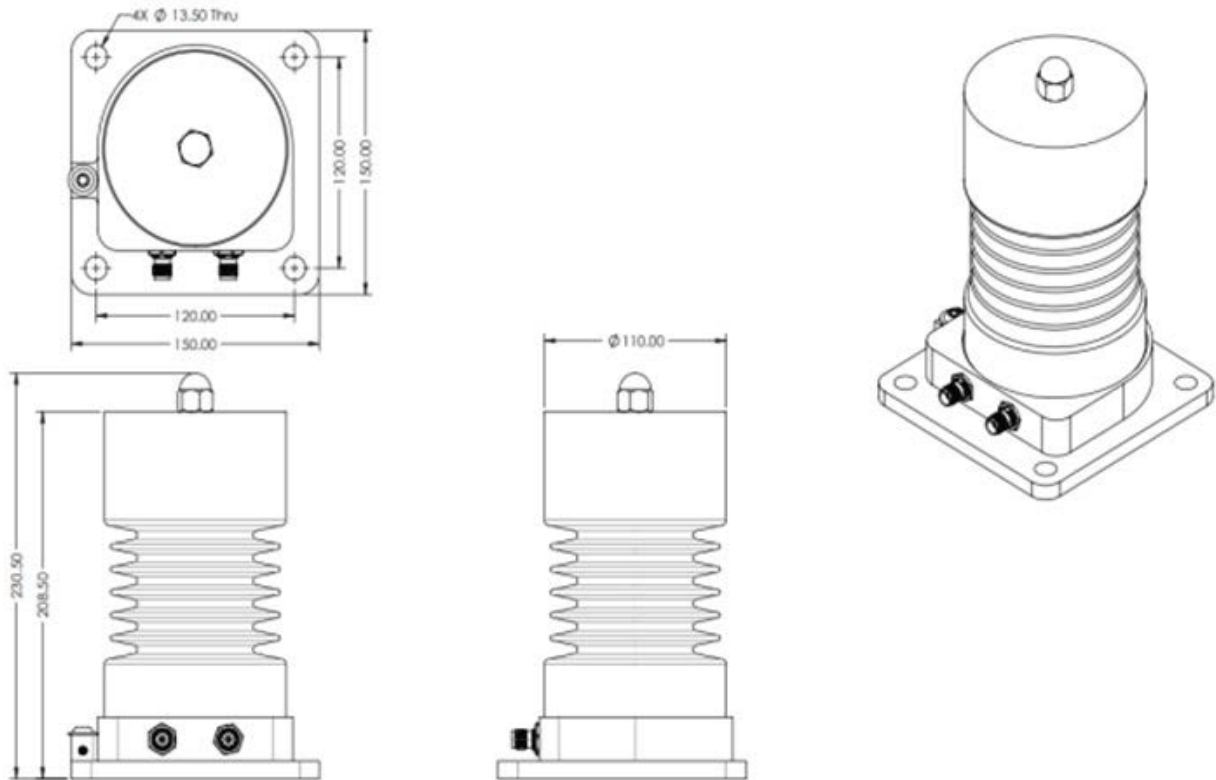
» Applications

- Generator
- Motor
- Switchgear
- Transformer and Dry-type transformer

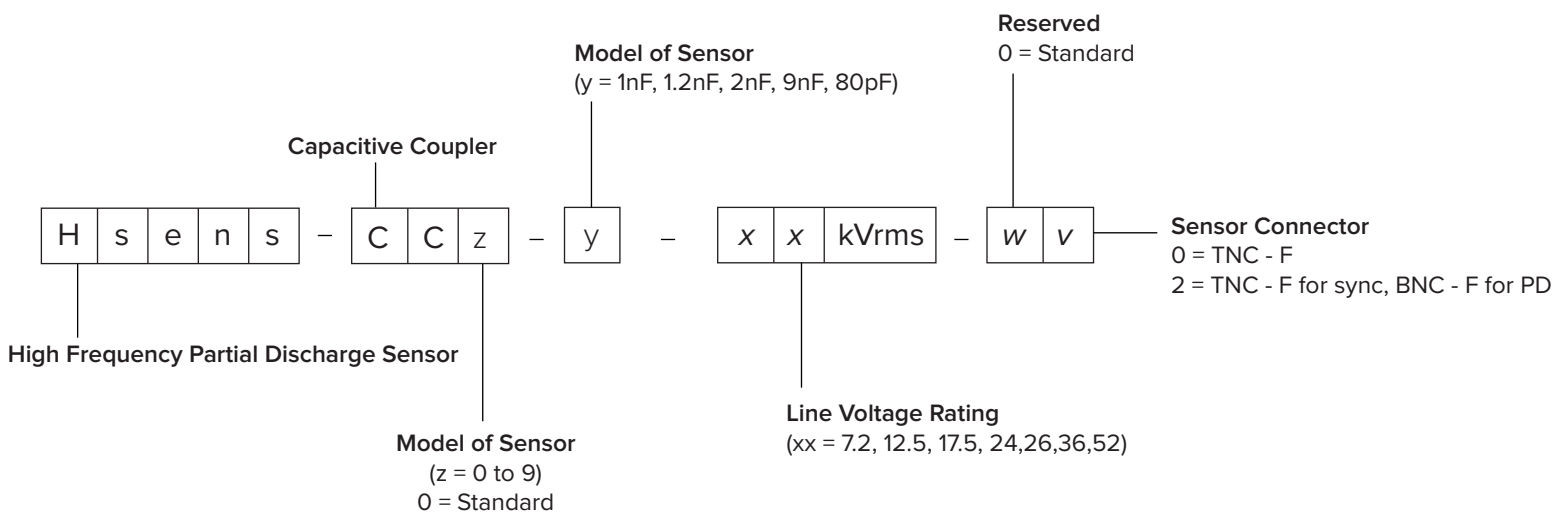
» Technical Specifications

Parameters	2nF 24kV	2nF 17.5kV	1nF 17.5kV	1nF 7.2kV	1nF 26kV	9nF 36kV	2nF 12.5kV
Coupler Capacitance	2nF	2nF	1nF	1nF	1nF	9nF	2nF
Nominal Voltage (PH Voltage of Capacitor)	24kV AC	17.5kV AC	17.5kV AC	7.2kV	26kV AC	36kV AC	12.5kV
Power Freq. Withstand Voltage	50kV AC	38kV AC	38kV AC	20kV AC	55kV AC	65kV AC	28kV AC
Lightning Impedance Withstand Voltage (BIL)	125 kV	95 kV	95 kV	65 kV	175 kV	150 kV	75 kV
Creepage distance	490 mm	330 mm	330 mm	135 mm	580 mm	600 mm	240 mm
Sensitivity	1pC	1pC	1pC	1pC	1pC	<2pC	1pC
Connection	Top Side M12 PD Free Nut	Top Side M12 PD Free Nut	Top Side M12 PD Free Nut	Top Side M12 PD Free Nut	Top Side M12 PD Free Nut	Top Side M10 bolts	Top Side M12 PD Free Nut
Material	Epoxy Resin	Epoxy Resin	Epoxy Resin	Epoxy Resin	Epoxy Resin	Composite silicon Grey	Epoxy Resin
Tan Delta	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%
PD Value @25kV, 50 Hz	<5pC at 26kV	<5pC at 21kV	<5pC at 21kV	<5pC at 9.0kV	<5pC at 30kV	<5pC at 30kV	<5pC at 13kV
Dimensions	Height = 253 mm	Height = 175 mm	Height = 175 mm	Height = 95 mm	Height = 260 mm	Height = 342 mm	Height = 160 mm
	Bottom diameter = 190mm	Bottom diameter = 100mm	Bottom diameter = 100mm	Bottom diameter = 100mm	Bottom diameter = 190mm	Bottom diameter = 149mm	Bottom diameter = 100mm
	Top diameter = 155mm	Top diameter = 100mm	Top diameter = 100mm	Top diameter = 95mm	Top diameter = 155mm	Top diameter = 191mm	Top diameter = 95mm
Weight	8.5 Kg	3.5 Kg	3.5 Kg	<2.1 Kg	>4.2 Kg	>4.2 Kg	<2.1 Kg
Capacitance	2nF ±10%	2nF ±10%	1nF ±10%	1nF ±10%	1nF ±10%	9nF ±10%	2nF ±10%
Temperature Range	[-20,60]°C	[-20,85]°C	[-20,85]°C	[-20,85]°C	[-20,60]°C	[0 + 85]°C	[-20,85]°C
Operating Humidity	95% humidity at 50°C	95% humidity at 50°C	95% humidity at 50°C	95% humidity at 50°C	95% humidity at 50°C	95% humidity at 50°C	95% humidity at 50°C
Signal Cable	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm	RG223 or RG 58 50ohm
PD Bandwidth	20KHz-30MHz	20KHz-30MHz	20KHz-30MHz	20KHz-30MHz	20KHz-30MHz	100KHz-30MHz	20KHz-30MHz
Sync Bandwidth	1 Hz-1KHz (0.1 Hz Variant available)	1 Hz-1KHz (0.1 Hz Variant available)	1 Hz-1KHz (0.1 Hz Variant available)	1 Hz-1KHz (0.1 Hz Variant available)	1 Hz-1KHz (0.1 Hz Variant available)	10Hz-1000Hz	1 Hz-1KHz (0.1 Hz Variant available)
PD Output Connectors	TNC Female	TNC Female	TNC Female	TNC Female	TNC Female	BNC Female	TNC Female
Sync. Output Connectors	TNC Female	TNC Female	TNC Female	TNC Female	TNC Female	TNC Female	TNC Female
Internal Voltage Protection	>100 V Peak across the Impedance	>100 V Peak across the Impedance	>100 V Peak across the Impedance	>100 V Peak across the Impedance	>100 V Peak across the Impedance	>100 V Peak across the Impedance	>100 V Peak across the Impedance
Quadrpole/ Measuring Impedance	Fixed at bottom of the couplers	Fixed at bottom of the couplers	Fixed at bottom of the couplers	Fixed at bottom of the couplers	Fixed at bottom of the couplers	Fixed at bottom of the couplers	Fixed at bottom of the couplers

» Product Drawing



» Ordering Code



CERTIFICATIONS



Canada

875 Bd. Charest O, Quebec, QC, Canada G1N 2C9

Asia Pacific | China | India | Middle East & Africa | Europe | North America | Latin America

+1-418-767-0111

info@ruggedmonitoring.com

www.ruggedmonitoring.com