



ACA series

An essential component for Distribution Automation and AMI deployments



ACA-500
ACA-36
ACA-1R



ACA-1RC

ACA series sensors are must have devices for distribution automation deployments. Enabling an unprecedented degree of integration by providing a compact design meeting both mechanical and electrical standards to fit in MV gas insulation switchgears.

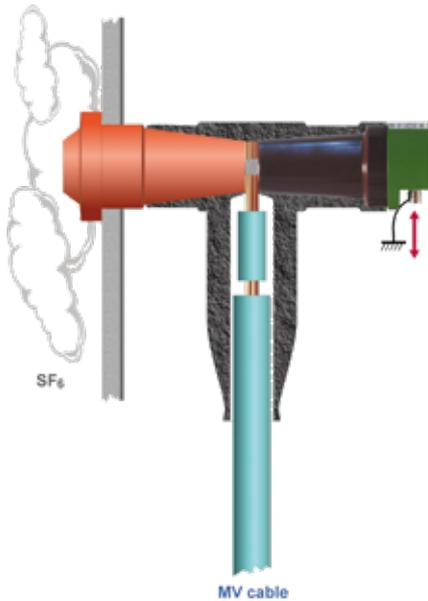
By combining sensing and PLC coupling in the same device **ACA sensors/couplers** are an ideal solution for those secondary substations which are automated and communicate using backbone broadband MV powerline communications to connect to the SCADA/DMS and MDM systems.

In AMI roll outs **ACA couplers** provide a high performance communication channel to guarantee the meter reading transmission.

The **ACA series** provide high accuracy **sensors** and superior performance broadband **PLC couplers** for **MV gas insulated switchgears**

- ✓ ACA sensors and couplers are designed to fit in MV symmetrical Type C interface T connectors(CENELEC EN 50181).
- ✓ The ACA sensors and couplers are provided with BNC male connectors with standard coaxial cables for measurement and grounding terminal for safety.
- ✓ The convenient BNC position ensures a suitable path for the coaxial cable, avoiding tight bends.
- ✓ The design of the ACA device allows installation in the cable compartments of gas insulated switchgear without the need to increase the size or enlarging the cover and not affecting the IAC rating of the switchgear.
- ✓ Simple and fast installation with standard tools.
- ✓ Inputs and outputs are protected by gas surge arresters.





Quality backed by 10,000++ units supplied with more than 7 years of uninterrupted operation in the field

The **ACA-1R** is a 1% accuracy resistive voltage sensor which reduces weight and size required in MV monitoring and automation applications as a replacement for inductive voltage transformers.

The **ACA-1RC** is the optimal solution for combined MV sensor and broadband PLC coupling functions in

a single device, without increasing the size.

The **ACA-500** & **ACA-36** PLC couplers provide high frequency signal impedance matching and coupling to MV cables for broadband high-speed medium voltage powerline communications.

Technical Information

| | ACA-1R | ACA-1RC | ACA-500 / ACA-36 |
|-----------------------------|--|--|--|
| Ratio | 10,000:1 | 10,000:1 | N/A |
| Nominal bandwidth | N/A | 2 MHz ÷ 30 MHz | 2 MHz ÷ 30 MHz |
| Accuracy | <1% / <1° | | N/A |
| Insertion Losses | N/A | <4dB in all the Nominal Bandwidth | |
| LV isolation | Not isolated. Low Voltage output referred to ground | Sensor: Not Isolated. LV referred to ground / PLC transformer 5 kV/1 min | PLC transformer 5 kV/1min |
| Operating temperature range | -20°C to +60°C | | |
| Nominal burden | 10 MΩ 2.7nF | | N/A |
| PLC Impedance | N/A | 50 Ω | |
| Size | Cone size according to EN 50181 Total length: 148 mm | | |
| Weight | 0.965 kg | | |
| Un | 24 kV | | ACA-500 (24 kV) ACA-36 (36 kV) |
| Isolation test | 50 kV/1min According to IEC 60060-1 | | 50 kV 70 kV 1min According to IEC 60060-1 |
| Lightning impulse test | 125 kV 15(+) and 15(-) impulses according to IEC 61869-3 | | 125 kV (24 kV) 170 kV (36 kV) According to IEC 60358 |
| Partial discharges | According to IEC 61869-3 | According to IEC 60358 | |

