

DISTRIBUSENSE® SENSORS

KLS-110

15 kV outdoor current line post sensor



The KLS-110 current sensor is designed to connect with meters, relays, and grid controllers for real time data acquisition.

Overview

Today, utilities experience unprecedented challenges associated with power delivery. An aging grid infrastructure coupled with increasing consumer demand, stringent regulations, avoiding peak-time cost penalties, and integrating alternative energy sources into the grid are factors utilities must consider to improve power delivery and reliability. More data collection points, enabling greater grid intelligence, are required. Collecting from feeder locations to substations ensures the grid is optimized to address these challenges.

Current and voltage sensors are ideal for providing feeder intelligence that drives decision-making for a variety of important grid modernization applications. Utilities benefit from increased reliability and efficiency by decreasing energy costs, protecting revenue, avoiding costly regulatory penalties, and boosting customer satisfaction. Maximizing these benefits requires understanding grid conditions throughout the entire feeder network.

Application

The KLS-110 current sensor is used in many distribution automation solutions:

- Sensing at capacitor banks for accurate VAR and power factor measurements

- Sensing high current conditions to support transient and permanent fault detection
- Identifying power quality issues by measuring up to the 66th harmonic

To ensure accurate measurement and proper performance, the sensor and IED must be compatible. Due to the wide variety of relays and controllers offered in the market today, contact the factory or your ABB sales representative to ensure sensor compatibility.

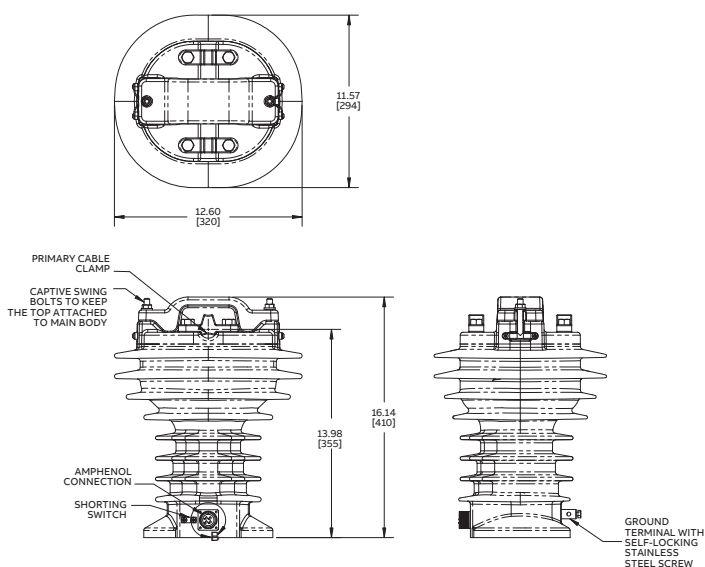
Benefits

- Provides a 1A output for real-time reading of the current wave form
- Effective fault current detection up to 12kA
- Small with excellent balance between current accuracy and weight
- Performance is independent of primary conductor diameter
- Integrates with a wide variety of controllers
- Acts as a line post insulator, allowing for easy, live installation without primary taps or cutting the line

Construction features

The KLS-110 utilizes state of the art, precision cut split-core current transformer technology to output a high accuracy secondary current signal at nominal and fault current levels. The swing bolt design allows for easy opening and closing of the split core during installation. After installation, the core is protected by a water-tight EPDM gasket to prevent moisture intrusion and weather exposure. The open ends of the core are coated with dielectric grease as an additional protective measure.

Unit dimensions (inches [mm])



KLS-110 selection guide

Current ratio	Cable length	Style number
600:1	5 m	E-923A537G01
	10 m	E-923A536G01
	15 m	E-923A535G01

Additional styles available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.

Installation

The KLS-110 can be installed on the existing cross-arm or on a variety of mounting racks. The separate secondary shielded cable and connector makes the connection from the low-end of the sensor to the IED. A separate, self-locking screw terminal provides an effective ground connection.

Product details

System voltage class (L-L)	15 kV
BIL	110 kV
Accuracy	<1% from 10% to 200% of rated current (60A - 1200A)
Standard ratio	600:1A
Frequency	60 Hz
Insulating material	Hydrophobic cycloaliphatic epoxy (HCEP)
Strike	13.1" (335 mm)
Creep	31.1" (790 mm)
Weight	50 lbs. (22.7 kg)
Cantilever strength	2800 ft-lbs.
Temperature range	-40° to 85°C
Power frequency withstand	34 kV
Installation	Live wire mountable
Conductor range	#4 AWG – 600 mcm
Mounting	Vertical only
Connector	Amphenol
Cable length	Up to 49' (15 m)

Note: Performance is optimized with cable length provided from the factory. Cutting or using a different cable can impact accuracy. Contact the factory before modifying the cable.

Available with 3-in-1 cable to connect 3-phase sensors to IED using one cable.