## 2. Products

## 2.3 SENSORS FOR EARTH FAULT DETECTION

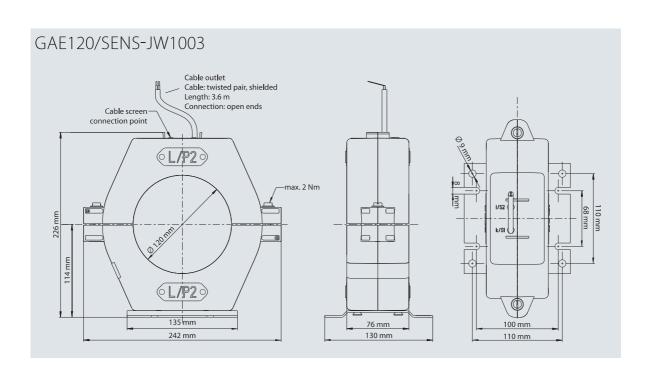
## 2.3.1. GAE120/SENS-JW1003 (split core)

The sensor for earth fault detection of type GAE120/SENS is based on a market proven and established product. All output cables of the substation are conducted through this transformer.



In case of earth fault in a three-phase network, a current occurs due to the displacement of the neutral point. This current is implemented with a specific ratio in the output of the sensor. Therefore the system enables to detect fault and short-circuit currents.

In this sensor inductive transformer principles are combined with sophisticated sensor technology. The high finished cut surfaces of the iron core ensure a constant and high accuracy of the measurement after assembling.



## Datasheet GAE120/SENS-JW1003

Insulation level	0,72 kV	
Rated frequency	50 Hz / 60 Hz	
Rated short time thermal current	25 kA / 3 s	
Ratio earth fault detection	60 A // 225 mV *	
Accuracy class	Primary current: from 1 to 60 A	Phase displacement: ±120 minutes
	0,5 / 1	
Output signal	225 mV	
Standard	IEC 60044-8 // IEC 61869-11	
External conditions	Operation: -25°C to +40°C or -40°C to +40°C *	
	Storage: -40°C to +80°C *	
Rated burden	≥ 20 kΩ	
Connection cable & interface	See configuration table page 11	

<sup>\*</sup> Alternatives on request