Principle - an evolution of traditional CTs

LPCT is a magnetic sensor with integrated shunt providing a reduced voltage output which represents the primary current.

LPCT protection chain includes LPCT with transmitting cable, Sepam relay, tripping coil, circuit breaker.

LPCT technology is the technical answer to the evolution of relay technology that is now based on digital design.

Main points to remember

- The use of instrument transformers is mandatory for protection or measuring in Medium Voltage applications.
- Technological progress have led to many developments in the field of measuring. In Medium Voltage applications, the consequence comes into using using more and more of LPCTs and LPVTs associated with digital relays.
- Sepam relays are easily fitted with LPCTs, ensuring a high consistency of the devices building the protection chain.
Advantages

- There is only one sensor for all service currents. Then there is no need to choose the rating of the primary current as for the conventional CTs.
- Schneider Electric recommends LPCT:
  - to reduce delivery time (less engineering, less lead time, less stock).
  - to have last minute adaptation of configured switching device or cubicle.
  - to facilitate MV network evolution without any shutdown of the cubicle.
  The association of the sensor and sepam allows upgrade or downgrade of the current service without any change on the sensor.

FAQ

- Is LPCT complying with international standards?
  LPCT is compliant with international standard IEC 60044-8, and therefore it has passed type and routine tests required by the standard.
- Does LPCT respect the same accuracy class as conventional CT?
  LPCT respects the same accuracy class with wider range. Measuring accuracy class 0,5 et protective accuracy class 5P.
- What is the main difference between LPCT and conventional CT?
  LPCT represents an evolution of the conventional CT. The conventional CT has been designed for electromechanical relays, and therefore supplies a high power current output with a low range of application. Modern electronic relays have low input power requirement, so the LPCT which supply a voltage signal as secondary output with a wider range of application, is the optimal solution.