

## Electrical network protection

# CLP1 Merlin Gerin LPCT type current sensor



CLP1 sensor,  
to measure phase currents from 100 A to 1250 A.

**CLP1 sensors are voltage-output current sensors of the Low Power Current Transducer (LPCT) type, compliant with the IEC 60044-8 standard.**

The CLP1 sensor is designed to measure rated current between 100 A and 1250 A, with a ratio of 100 A / 22.5 mV, and may be used on networks with a maximum voltage of 17.5 kV.

### Advantages:

■ **the same sensor measures phase currents from 100 A to 1250 A**

■ **guaranteed accuracy within measurement range:**

- protection: class 5P from 100 A to 50 kA
- measurement: class 0.5 from 100 A to 1500 A

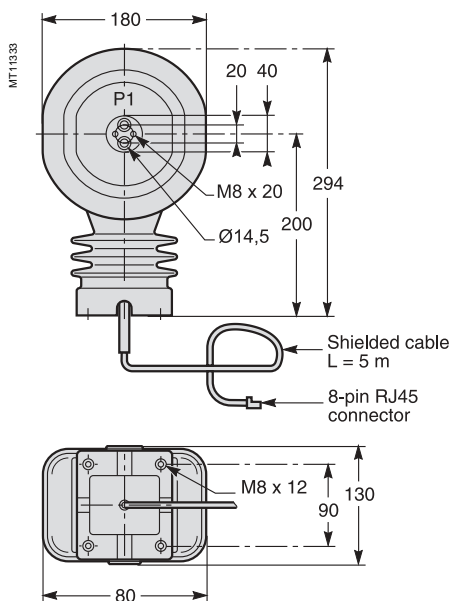
■ **simple to install**

- secondary circuit pre-wired and ready to connect
- primary circuit easy to connect in all types of cubicle

■ **safe to use**

Secondary circuit may be disconnected on load.

### Dimensions



### Characteristics

Rated primary current	100 A
Rated primary extended current	1250 A
Rated secondary voltage	22.5 mV
Measurement accuracy class	0.5
Protection accuracy class	5P
Accuracy limit factor	500
Accuracy burden	$\geq 2 \text{ k}\Omega$
Rated short-time thermal current	50 kA x 1 s - 40 kA x 3 s
Highest voltage for equipment (Um)	17.5 kV
Rated power frequency withstand voltage	38 kV
Rated lightning impulse withstand voltage	95 kV
Secondary connection	By shielded cable (5 m) with 8-pin RJ45 connector
Creepage distance	309 mm
Weight	8 kg

## Electrical network protection

# LPCT protection chain CLP1 sensors and Sepam 1000+ protection units

**Sepam 1000+ protection units are at the heart of the LPCT protection chain.**

Sepam 1000+ performs the following functions:

- acquisition of phase currents measured by the CLP1 LPCT sensors
- utilization of measurements by the protection functions
- tripping of the breaking device in case of fault detection.

### Advantages:

■ **consistent protection chain, guaranteed by a major manufacturer**

■ **simple to install and implement:**

- CLP1s connected directly to Sepam 1000+
- accessories available to test the LPCT protection chain by secondary current injection

■ **optimized integration of functions:**

- measurement of phase currents as of 25 A
- monitoring of LPCT sensor by Sepam 1000+ (detection of phase loss)
- integrated naturally in Merlin Gerin equipment

■ **Sepam 1000+**

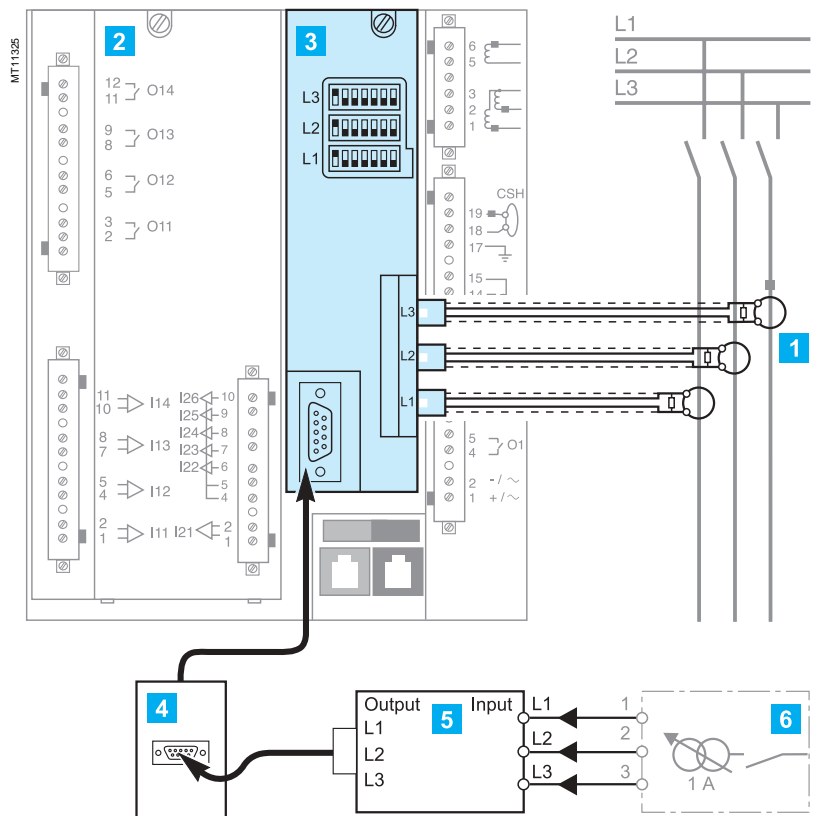
Simple, modular, high-performing multifunctional protection unit.



Sepam 1000+ protection unit

## Connections

- 1 CLP1 sensor,**  
equipped with a shielded cable (5 m) fitted with an RJ45 connector to be connected directly to the CCA670 connector
- 2 Sepam 1000+ protection unit**
- 3 CCA670 connector,**  
interface that adapts the voltage delivered by the CLP1 sensors, with microswitch setting of rated current (9-pin SUB D)
- 4 CCA613 remote test plug,**  
flush-mounted in front panel of cubicle, equipped with a 3-m cord to be connected to the CCA670 connector test socket
- 5 ACE917 injection interface,**  
used to test the LPCT protection chain with a standard injection box
- 6 Standard 1A injection box.**




PCRED302011EN - © 2002 Schneider Electric - All rights reserved

### Schneider Electric Industries SAS

89 boulevard Franklin Roosevelt  
F - 92500 Rueil Malmaison (France)  
Tél : +33 (0)1 41 29 85 00

<http://www.schneider-electric.com>

As standards and equipment change from time to time,  
always ask for confirmation of the information given  
in this document.

 This document has been  
printed on ecological paper

Production: AMEG  
Publication: Schneider Electric  
Printing: Imprimerie des 2 Ponts