

**CMD - 3-phase Current Monitoring Device**

**HV Switching**



# The fastest and easiest solution for current monitoring

The CMD measures 3-phase current at high voltages to protect power systems. The innovative design utilizes sensors and electronics to measure live line currents from ground potential. No contact with a live conductor is required. For that reason the CMD is not only more reliable than free standing current transformers, but it also costs less and saves space. The CMD easily mounts on new or existing equipment with no additional footprint.



## Features

The CMD is delivered as a complete package, including the sensor and a cabinet housing a Schweitzer SEL 551 relay. This allows various overcurrent detection, and the tripping / reclosing function. Upon request, any recent digital overcurrent relay can be interfaced with the sensor.

On the opposite of conventional CT's, the CMD is not subject to risks like explosion, oil or SF<sub>6</sub> leakages, and limitations due to saturation or seismic constraints reasons.

While conventional CT's need their own foundation, structure, and a separate relay, the CMD can easily be fitted to any high voltage equipment through simple brackets. Furthermore, installation or maintenance can be undertaken without any outage.

A built-in RS-232 port allows to download heuristic data to a laptop.

## Applications

For 3-phase current measuring, one single device that :

- Replaces free-standing current transformers
- Mounts on new or existing equipment, without additional foundations, to add current measurement capability
- Reduces installation costs by up to 30 %
- Can be applied to :
  - Circuit Breakers
  - Circuit Switches
  - Capacitor Switches (and particularly our CapSwitcher)
  - Disconnectors
  - Transmission lines
  - ...
- Provides overcurrent protection for capacitor banks when installed with CapSwitcher (picture) or other switching devices
- Fully protects vulnerable transformer bushings and arresters
- Improves reliability by detecting and isolating faults closer to their origin

## Technical data

Applications	Ur (kV)	36 - 245 kV
Rated lightning impulse withstand voltage to earth	Up (kV)	170 - 1050
Rated permanent current	Ir (A)	1250 - 8000
Rated fault current (symmetrical)	Ik (kA)	20 - 80
Ambient temperature	T (°C)	-40 / +50

Technical data			
Auxiliary supply voltage	Ua	48 / 125 / 250 V DC 120 - 230 V AC	
		Typical	Maximum
Auxiliary supply power	Pa	17 W	480 W
Output current (relay input)	Im	1 A	20 A
Relay burden	Z	0.1 Ω	0.1 Ω
Measurement error	Δ	5 %	10%

Dimensions & weights		Ur (kV)	36-72 kV	123-170 kV	245 kV
<b>Sensor</b>					
Length	Ls (mm)	3050	2 x 1780	2 x 3050	
Weight	Ms (Kg)	26	2 x 14.5	2 x 24	
<b>Cabinet</b>					
Width	Wc (mm)	572			
Height	Hc (mm)	1092			
Depth	Dc (mm)	368			
Weight	Mc (Kg)	46			

Other ratings may be available. Please consult Coelme-Egic.

### COELME

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