

Omicron Tools for testing LPVT / LPCT

There are 2 main changes when testing LPIT protection, compared to normal circuits.

- 1st is the amplitude.
 - 2nd aspect is the physical interfaces.
1. w.r.t amplitudes, nominal secondary values such as 1/5 A and ~100 V are now 22.5mV for CT (no typo error, it is mV no longer Amps) and 3.25 V for VT circuits.
 2. 4mm bananas are replaced by RJ45 connector (those are NOT Ethernet plugs)

The test method is quite simple: typical voltage and current are injected from the Omicron's kit. Instead of using front bananas, you would have to use a converter + a set of specific cable from Omicron.

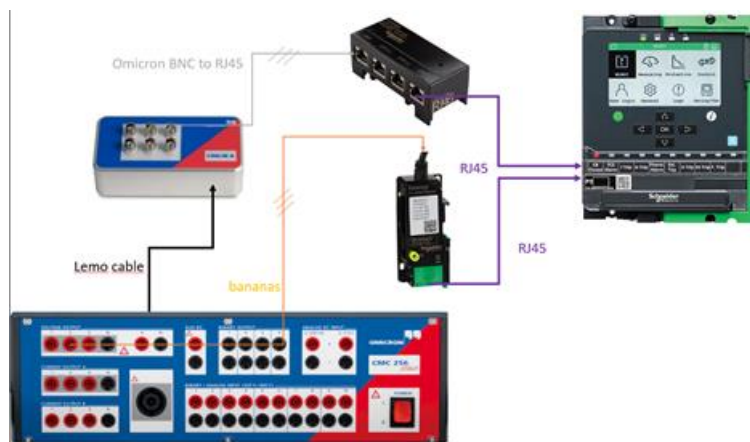
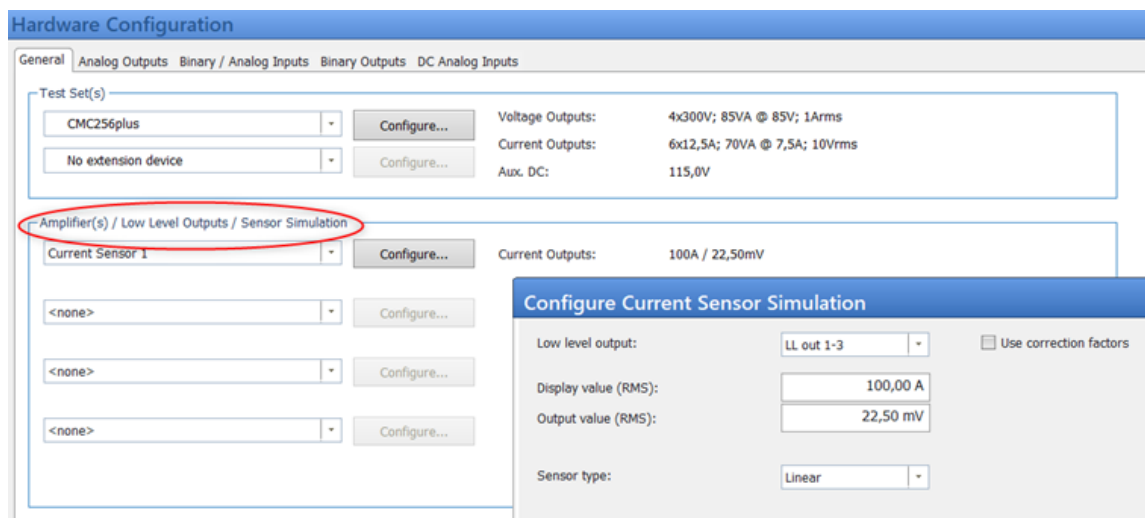


Figure 2: layout used during testing.

The only change is that CMC is configured to inject I/U using its back connection, dedicated to such low-level's scheme.



There are no longer primary/secondary scaling for CT/VT- Instead, you should set only primary values under test object

Device Settings

Device Settings

Device

Name/description:

Manufacturer:

Device type:

Device address:

Serial/model number:

Additional information 1:

Additional information 2:

Nominal Values

Number of phases: ☐ 2 ☒ 3

f nom: Hz

V nom (secondary): kV (L-L)
 kV (L-N)

V primary: V (L-L)
 kV (L-N)

I nom (secondary): A

I primary: A

Substation

Name:

Address:

Residual Voltage/Current Factors

VLN/ VN:

IN / I nom:

Then you may use any test modules (Quick CMC, state sequencer, etc ...) as you used to do ...

There are 2 kit from Omicron:

CMC353/356 : require 1 CMLIB-A + 1 set of Easergy cable (ref= VEHK0157) for testing 1Easergy P5 using LPIT.

Test solutions

► Manufacturer or device specific solutions required

			
Fits	CMC 356, CMC 353, CMC 256plus	CMC 430	
ABB Relion	CMLIB REF6xx 	LLX1 + LAB1 Cable set 	
ABB REF542plus	REF 54x cable connector 	LLX1 + LAB2 Cable set 	
Siemens Siprotec Compact	CMLIB 7Sx8 	LLX1 + LS11 Cable set 	
Schneider Electric Easergy	CMLIB A + Easergy cables 	LLX1 + LSE2 Cable set 	

<https://www.omicronenergy.com/en/products/cmlib-a/>

<https://www.se.com/ww/en/product/EMS59573/easergy-t300-lpvt-voltage-adapter---rj45-input---rj45-outp...>

<https://www.se.com/fr/fr/product/59662/c%C3%A2ble-cca774-pour-module-d%C3%A9port%C3%A9---longueur-4m...>