

# COMPISO System Unit 100-2GAMP4

The COMPISO System Unit (CSU) 100-2GAMP4 is a turnkey P-HIL solution for electrical power system test benches. It is equipped with eight independent four-quadrant digital power amplifiers that can be operated from DC up to 5 kHz full span output voltage. The system offers various AC, DC and hardware-in-the-loop (HIL) operation modes. The system delivery includes the power path, the necessary safety infrastructure and software applications to configure and run the system.

The CSU100-2GAMP4 can operate in various system modes, including: AC, DC, free amplifier and HIL operation modes. The operation mode defines the connection of the eight COMPISO digital amplifiers (CDA) in the system.

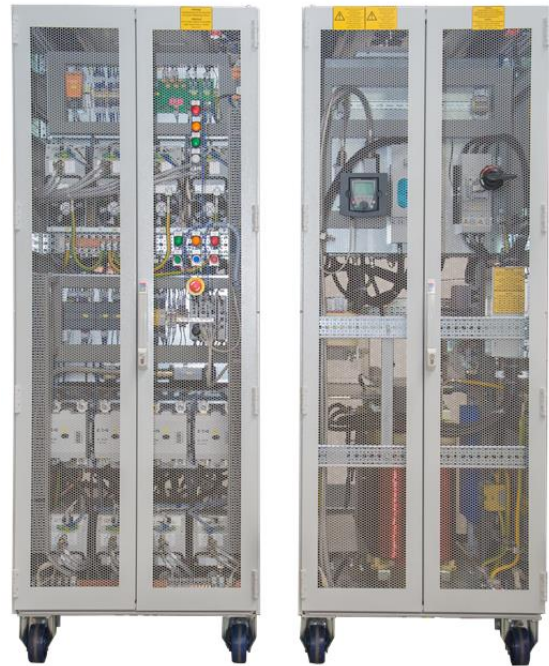


Figure 1 – CSU 100-2GAMP4 cabinets

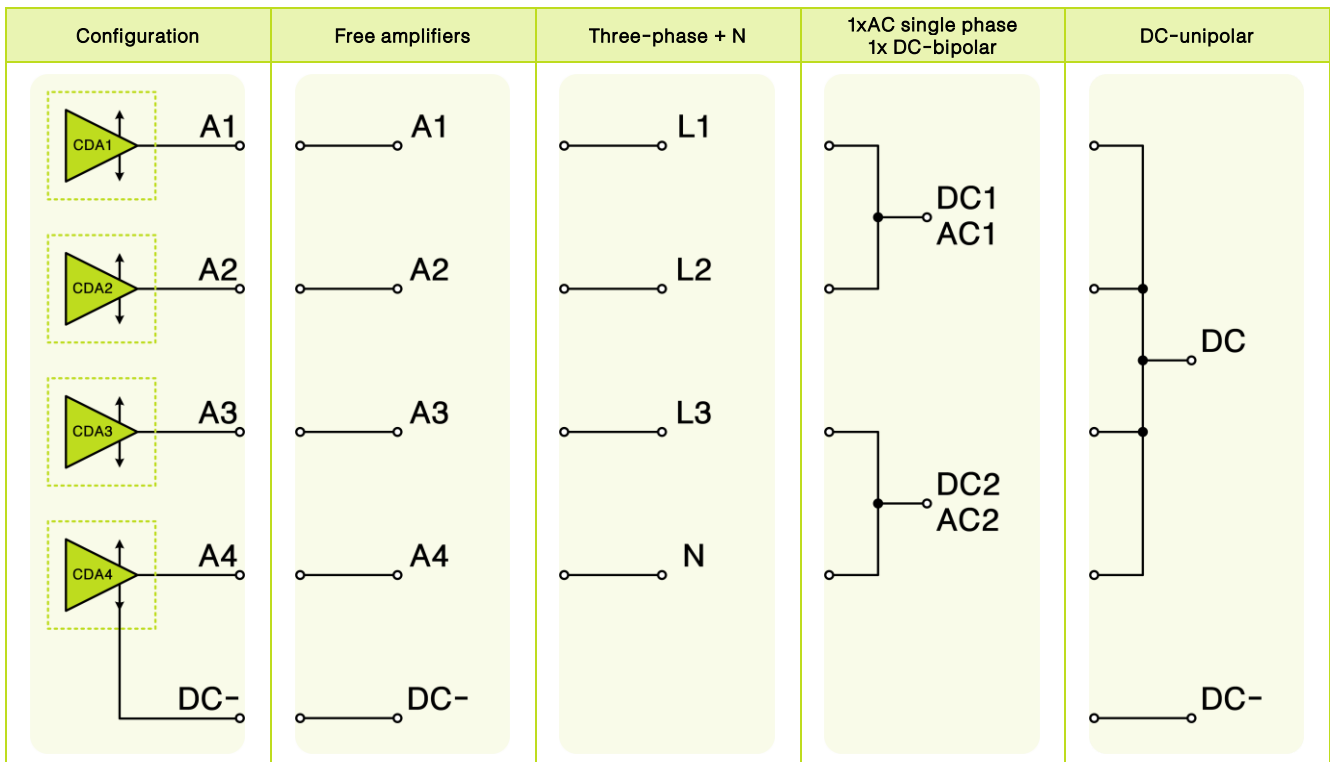


Figure 2 – Operation Modes

## Data Sheet – Summary

DC operation		AC operation	
<b>DC unipolar operation mode</b>		<b>1x AC single phase operation mode</b>	
V <sub>DC</sub> MAX	732 V <sub>DC</sub>	V <sub>AC</sub> MAX	500 V <sub>RMS</sub>
I <sub>DC</sub> MAX	600 A <sub>DC</sub>	I <sub>AC</sub> MAX	250 A <sub>RMS</sub>
<b>1x DC bipolar operation mode</b>		<b>Three-phase + N operation mode</b>	
V <sub>DC</sub> MAX	±713 V <sub>DC</sub>	V <sub>LL</sub> MAX	433 V <sub>RMS</sub>
I <sub>DC</sub> MAX	300 A <sub>DC</sub>	I <sub>L</sub> MAX	126 A <sub>RMS</sub>
Frequency range		Rated output power	
from DC up to 5kHz full span output voltage		S <sub>MAX</sub>	100 kVA

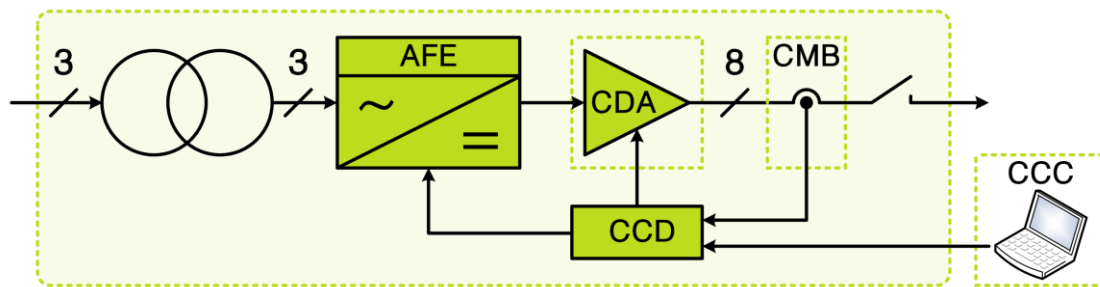


Figure 3 – CSU topology

## P–HIL Turnkey Solution

The CSU100-2GAMP4 is delivered with the following components

- Three-phase Active Front End (AFE) with galvanic isolation
- Eight independent four-quadrant amplifiers
- Output contactor at each amplifier output
- Voltage and current measurement device at each amplifier output
- High speed real-time communication board
- Fibre optic interfaces for communication with external HIL-processors
- Fibre optic interfaces for connecting EGSTON analogue and digital input and output boxes
- Cabinet safety infrastructure
- COMPISO Control Center (CCC) graphical user interface software, to parametrize and monitor the CSU system

## Applications

<b>Basic</b> <ul style="list-style-type: none"> <li>• Arbitrary Waveform Generator</li> <li>• Electrical Load</li> </ul>	<b>Aerospace / Defense</b> <ul style="list-style-type: none"> <li>• 400 Hz AC Grid Emulator</li> <li>• DC Grid Emulator</li> <li>• Electrical Load Emulator</li> <li>• Power Electronics Device Emulator</li> </ul>
<b>Power Grid</b> <ul style="list-style-type: none"> <li>• AC &amp; DC Source / Load</li> <li>• Power Grid Emulator (16 2/3, 50, 60, 400 Hz)</li> <li>• PV-Module Emulator</li> <li>• Inverter Test Bench</li> <li>• Wind-Generator Test Bench</li> <li>• Harmonic Injection Generator</li> <li>• Signal Generation compliant with standards</li> </ul>	<b>Automotive</b> <ul style="list-style-type: none"> <li>• Drive Train Emulator</li> <li>• Battery Emulator / Tester</li> <li>• Electric Machine Emulator</li> <li>• Drive Train Inverter Test Bench</li> </ul>