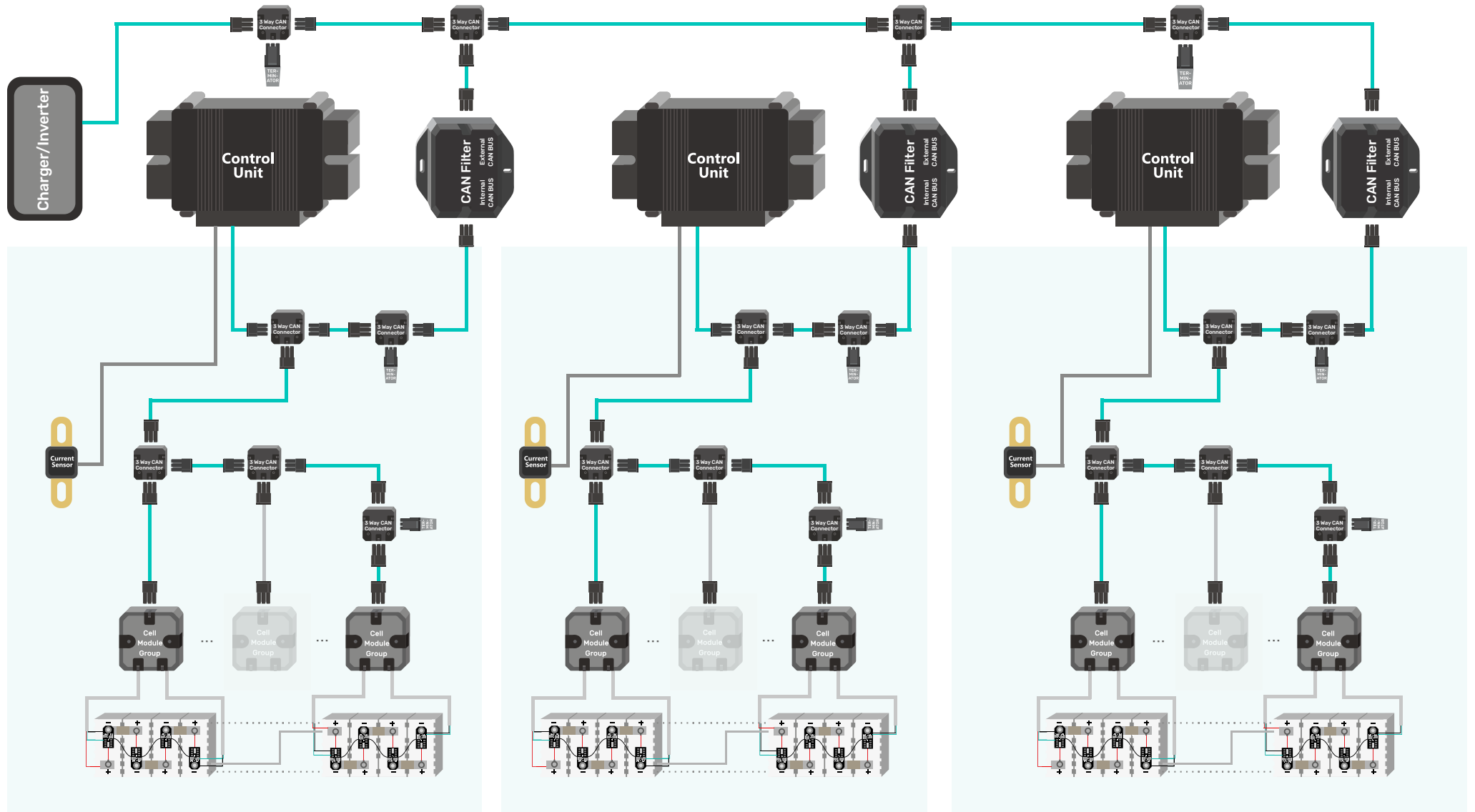


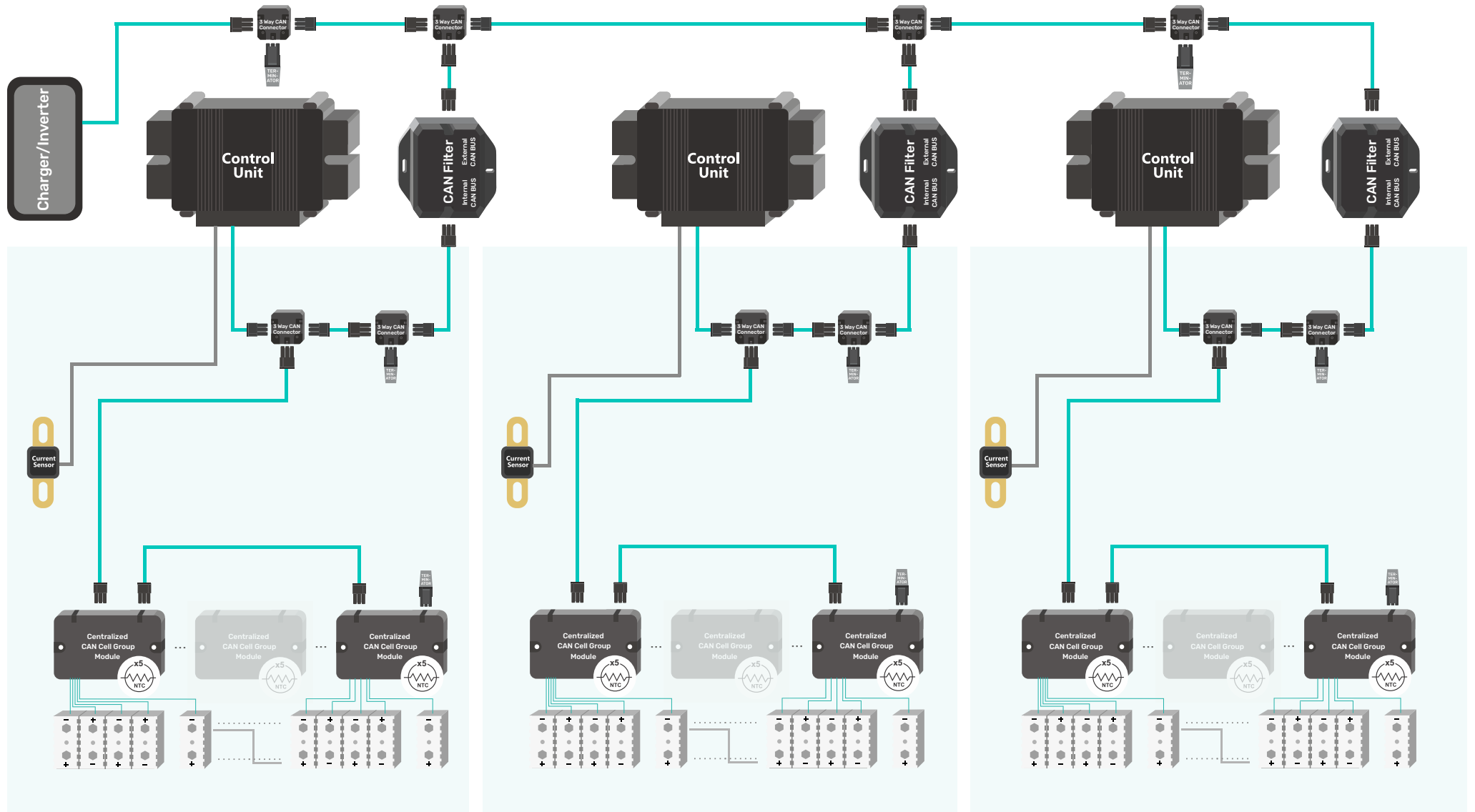


# G1 Clustered Distributed Grouped with CAN filters





# G1 Clustered Centralized CCGM with CAN filters





# G1 Clustered Centralized CCGM with CAN filters

**EMUS G1 Clustered BMS topology** is used to build large Lithium-ion battery systems mostly in electric energy storage (EES) applications where high power, capacity, and modularity are required. Such BMS configuration not only allows to build large ESS system, but also provides redundancy features, for example, if one of the battery strings/subsystems runs out of operation, other battery strings can operate and provide power continuously. Up to 6MWh power energy storage systems can be built with off-the-shelf products and larger systems can be made with customized solutions.

**EMUS G1 Clustered system** is a combination of several commonly used **EMUS G1 Distributed Grouped** or **Centralized CCGM subsystems**. Simply said, up to 18 strings, with each string having its own G1 Control Unit can be interconnected into one large system. Among all the 18 Control Units, one of them is automatically designated as a „Master CU“ and the remaining Control units as „Slave CU“. In such way „Master CU“ is gathering information from „Slave CU“ strings and commands operational logic, as well communicates with external devices such as chargers, inverters, VCU, PLC, etc. All system configuration is easily made on **EMUS Control Panel**, which is provided free of charge to **EMUS** customers.

This system runs on **EMUS** proprietary CAN communication protocol using a special item for efficient CAN traffic distribution called „CAN filter“. CAN filter is filtering internal system's CAN traffic from external CAN traffic, thus making it stable and reliable.

## **EMUS G1 Clustered system** features:

- Wide scalability options for high voltage and capacity systems up to 6MWh\*
  - Redundancy feature  
Wide passive balancing ranges (400mA, 700mA, 1500mA, 3000mA, 6000mA)
  - Operational logic customization with client's external devices
  - Easy and fast installation
  - CAN communication
- \* Higher power systems can be designed with customized solutions, please contact at [sales@emusbms.com](mailto:sales@emusbms.com)

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