cleantron®

GX High Voltage

Scalable High Voltage System





BMU

System

Scalable Voltage 24 to 920 V DC
Scalable Capacity 230 Ah * [x] HV Strings
Active Cooling Optional Immersion

Cooling/Heating

Chemistry LFP

Options Funsaf ISO 13849 PL-C

IEC 61508 SIL-1

ASIL-C

The Cleantron GX is an advanced Battery Module designed for scalability and modularity in Voltage and Capacity. It is engineered for applications requiring mechanical integrity, IP rating, C-rates and scalability in Voltage and Capacity.

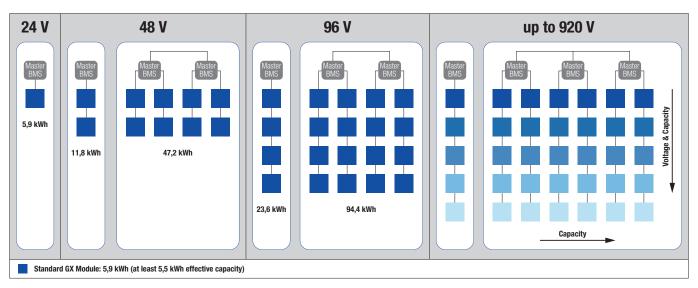
The Cleantron GX is suitable for Electric Mobility, Industrial applications, as well as, Agricultural, and Construction equipment. The GX module serves as the ideal building block for modular systems, adjusting multiple [X] modules in parallel for higher currents and capacity, and multiple [Y] modules in series for higher voltage.

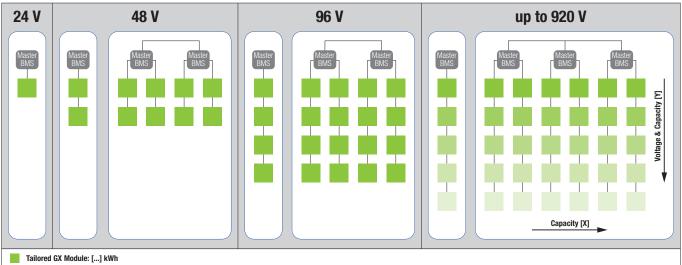
The GX Module is available with a capacity of 5.9 kWh (at least 5.5kWh effective capacity)

The GX modules are enabled for the latest immersion cooling technology. Here the cells can be immersed in a coolant liquid that runs through a channel between the cells. This coolant liquid can also be used for heating the cells. Alternatively, the modules can also be used without immersion cooling and resistive heater elements for heating the cells. This largely depends on the application and the use case of the battery system.



Cleantron GX System: Scalable in Voltage & Capacity





Safety

- Short Circuit Protection
- Over & Under Voltage Protection & Recovery
- Over-Current Protection & Recovery (Charging & Discharge Currents)
- Over-Temperature Protection & Recovery
- Pack-level Pyro technical fuse
- Module-level passive fuse

Electronic

- Cell Balancing
- CAN-BUS Communication
- Key Switch Function
- Firmware Customization:
 - » Long Life Settings
 - » Tailored Communication Protocols
 - » Sleep Function Settings
- Battery passport enabled
- High voltage interlock loop
- Insulation Monitoring



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