

# 20FT CONTAINER 5 MWh



## BATTERY ENERGY STORAGE SYSTEM

Based on the latest  
LFP standard 20ft container

**UP TO 5 MWh PER 20FT HC UNIT**

**FLEXIBLE PROJECT CONFIGURATION**

**READY FOR AC- AND DC COUPLING**

**OPTIONAL: NETWORK BOOSTER FOR NETWORK OPERATORS**



The **TRICERA 20ft HC storage unit** is a compact 1,500V design, efficiently housing batteries, a battery control and energy management system, HVAC system, DC protections and extensive safety features, suited for all environmental conditions.

The batteries can be configured for **up to 5.0 MWh** for use in various applications. Several different battery topologies are available depending on power requirements for **up to 1C**.

TRICERA offers a robust, modular solution based on proven industrial technology that minimizes installation and maintenance time, extends system life and increases safety.

## FEATURES

- Individually customizable and **scalable** in capacity, performance and HVAC system according to customer and project requirements
- Cost effective and flexible battery rack construction **FLEX RACK** to incorporate various types of automotive battery modules
- AC- and DC-Coupling** in hybrid systems possible e.g., wind energy, photovoltaic, CHP, EV Charging
- Includes TRICERAs **in-house developed software** BCC and EMS
- On- / Off-Grid ready**
- Battery Cluster Controller (BCC)**
  - Monitoring and control of batteries, communication and HVAC system
  - System BMS integrated in BCC
  - Monitoring of safety functions and alarming when limit values are exceeded
  - Communication to Inverter
- Energy Management System (EMS)**
  - Available for several services
  - Interface to marketer
  - Interface communication via Modbus TCP / IP



# 20FT CONTAINER 5 MWh



## TECHNICAL SPECIFICATIONS

<b>Electrical Parameters</b>	Battery chemistry <sup>1</sup>	LFP
	DC Voltage <sup>1</sup>	Up to 1,500 V <sub>DC</sub>
	Nominal DC Energy Capacity <sup>1</sup>	5 MWh
	C-Rate <sup>1</sup>	1 C or 0.5 C or 0.25 C
	Aux Load Energy per Enclosure <sup>2</sup>	42 kW <sub>peak</sub>
<b>System Parameters</b>	Heating and Cooling <sup>2</sup>	Liquid cooling system
	Operating Temperature <sup>2</sup>	-15 bis +45 °C ambient temperature
	Altitude	Up to 2,000 m
<b>Housing</b>	Container	20ft High Cube Open Side
	Corrosion class <sup>2</sup>	C3, Up to C5 optional
	Dimensions	2,896 x 2,438 x 6,058 mm (HxBxL)
	Weight	Up to 45,000 kg
	Other	Static tested, CSC-Plaque
<b>Fire detection and Suppression</b>	Smoke Detection, Temperature Sensors, visual and acustic signal, BCC Monitoring and Detection, Gas extinguishing system	
	Optional: • Sprinkler system as dry riser with external C-coupling and fine spray nozzles	
<b>Software</b>	Intelligent Energy Management System (EMS) - Key functions:	Frequency Regulation, Ancillary Service, Renewable Integration, Energy Arbitrage, Demand Management, Load Leveling, Peak Shaving, Micro Grid System, Black Start Capability Integration, Grid Stability, Commercial Application
	Communication interface	via Modbus TCP / IP
<b>Norms</b>	EN 60364, EN 60664, EN 61439-1, ISO 13849, EN 61000-6-2, EN 61000-6-4, IEC 62619, UN 38.3, UL 9540 A, NFPA 855	

<sup>1</sup> Depending on available battery type

<sup>2</sup> Depending on project location and use case

V1.03/02.26

