

Solbank Battery Container Specifications

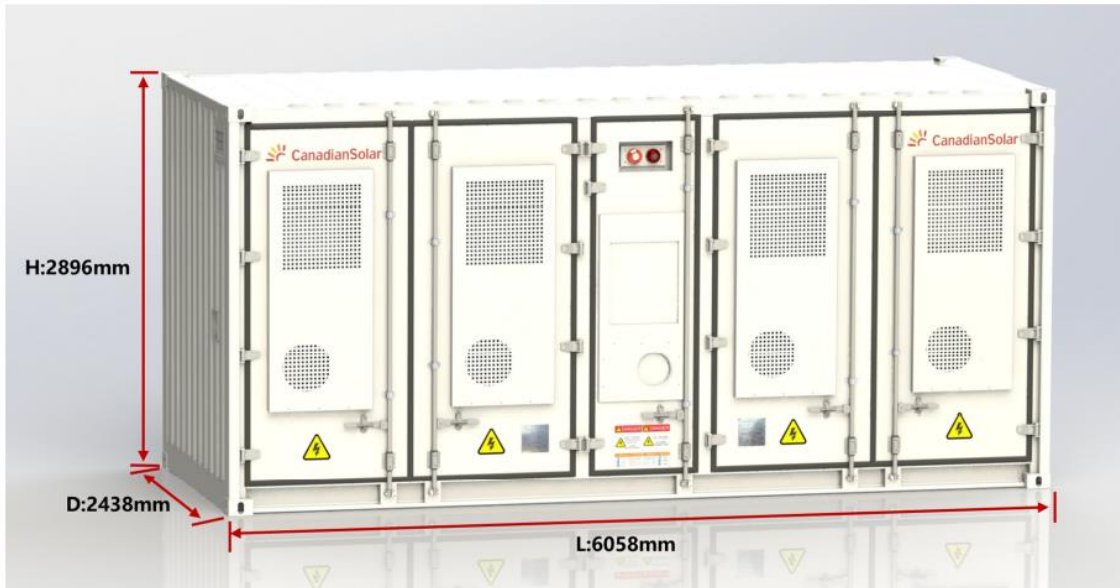


Figure 1. Dimensions of the Solbank Container

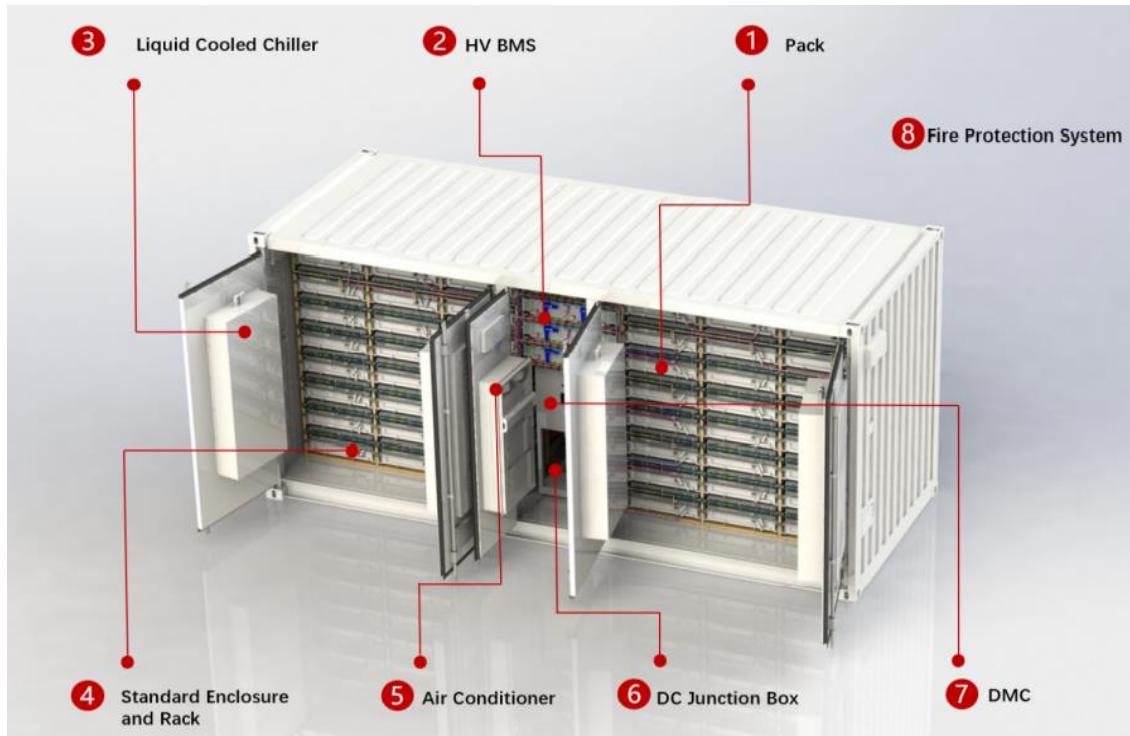


Figure 2. Components of the Solbank Container

Solbank Container Components (from Figure 2):

1. **Pack:** The SolBank Container contains 48 Lithium Iron Phosphate (LFP) battery packs, each consisting of 69 series wired battery cells.
2. **HV BMS:** The SolBank contains 8 HV BMS (High Voltage Battery Management System). These are easily accessed for installation and maintenance within the central bay of the container. The BMS ensure optimal battery functionality and safety.
3. **Liquid Cooled Chiller:** The SolBank's liquid cooling/heating system facilitates improved battery temperature management efficiency relative to traditional forced air systems. Each battery pack is liquid cooled, allowing for greater heat dissipation and uniform cell temperature management. During charge and discharge, cell temperature is maintained between 20°C - 35°C.
4. **Standard Enclosure and Rack:** All models of the SolBank utilize a standard IP-55 rated 20' ft HC container and battery rack design allowing for enhanced system modularity without increased production and equipment costs.
5. **Air Conditioner:** The SolBank's Air HVAC is used to control the temperature of the DMC and Junction Box within the 25°C (± 3) range, as well as the temperature and humidity in the SolBank chamber.

6. **DC Junction Box:** The SolBank's DC (Direct Current) Junction box contains all primary DC buswork, fusing, Surge Protection Devices (SPD), disconnects, and power monitoring required to safely exchanged power between the SolBank and PCS (Power Conversion System).
7. **DMC:** The Distribution Management Cabinet (DMC) and Control Cabinet houses all aux power distribution equipment including 2-hour backup uninterruptible power supply; system communication, control, and monitoring hardware including network switch, and Local emergency management system, and all required communication, signal, and aux power interfaces.
8. **Fire Protection System:** The SolBank combines heat and smoke detection with an explosion-proof ventilation system.