freedom WON

LiTE Commercial 800/640 HV+

Total Energy Capacity [kWh]	800
Energy, 80% DoD [kWh]	640
Energy, 90% DoD [kWh]	720
Current Capacity [Ah]	1200
Max/Cont. Charge and Discharge Current [A] [1]	800/700
Max/Cont. Charge and Discharge Power [kW] [1]	533/466
Nominal Voltage [V]	666
Max/Min. Operating Voltage [V]	738/593
Max Recommended Inverter Total Rated Power (cont.) [kVA]	500
Battery Dimensions - H x W x D [mm] [2]	1395x5580x730
Crated Dimensions - H x W x D [mm]	On-site build
Battery Weight [kg]	7000
Crated Weight [kg]	On-site build
DC Connection – Fly Leads (no. per electrode) [mm^2] [3]	1 x 185mm^2 Polybraid
Round Trip Efficiency [%]	96-97
Enclosure	Heavy duty custom Aluminium powder coated enclosure. Container options – 6m up to 2 x 800/640 models, 12m up to 4x 800/640+ models (shipping weight restrictions might require partial site assembly of battery for weight above 22T).
Protection	Shunt Trip Circuit Breaker sized to suit max current, can be tripped by BMS if critical fault, manual reset. Protection for overcurrent, cell under and over voltage, temperature, weak cell detection and other critical events
Control Interface	CAN Bus for diagnostics & troubleshooting. RJ45 Strictly for BMS & inverter communication
Human Interface	On and Off buttons, State of Charge display (0 to 100%), Error light, Error Reset button, USB plug for programming and data access with PC, main breaker
On-board Management	Full battery management system and internal trip protection
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Cell Form Factor	Large Format heavy-duty prismatic cells of 200Ah each and 3.2V nominal voltage, laser welded electrode connections
Battery Cooling	Fan and louver cooling solution
Suitable Ambient Temp [°C] [4]	0°C to +35°C
Extreme Operating Temp [°C] [4]	-20°C to +60°C
Warranty [5]	10 years or 4 000 cycles for average 80% DoD, and max 90% DoD
Service Life [5]	>16 years (>5 500 cycles) expected life at 80% DoD per cycle, >20 years (>7 500 cycles) at 50% DoD

Notes to Specification Sheet

The LiTE Commercial high voltage range is available in two variants, namely the HV and HV+. The HV models are suitable for the ATESS HPS range of hybrid battery inverters and the HV+ is suitable for the PCS range of battery inverters and associated PBD DC charge controllers. The 230/184HV+ model is suitable for both the HPS and PCS ranges. Note that integration with other inverter brands is feasible – please contact Freedom Won for assistance.

1. The maximum values given apply to both charge and discharge. For systems requiring more power, two or more batteries must be installed in parallel. Max current duration 5min every 10min. 1.5 x Max overload can be handled for 5 seconds. Current limits rated for 10°C to 25°C battery temperature. De-rating will apply outside this temperature range.
2. Excluding protrusions.
3. Fly Leads 4.0m long as standard, power cable Red = Positive, Black = Negative, conductors in table refer to one electrode i.e. per positive and negative connections. Up to 8m long available at extra cost (must be specified in order). Note that the fly leads exit the battery on the right-hand side near the floor on all the LiTE Commercial HV and HV+ models. This is to suit the bottom entry of the floor standing ATESS inverters. A cable trench is recommended for routing this cable along with all the other cables going to and from the inverter (a cable tray is an alternative).
4. Charging below 0°C not permitted. Extended time above 35°C not recommended for optimal battery life.
5. See Freedom Won Warranty document for further detail.

DISTRIBUTORS AND RESELLERS

Contact your nearest Accredited Freedom Won Distributor or Accredited EPCs for further sales and technical support.

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