LITE 2 COMMERCIAL HV+ RANGE

Range Overview Specification Sheet

freedom WON

	Commercial 300/240 HV+	Commercial 400/320 HV+	Commercial 500/400 HV+
Total Energy Capacity [kWh]	300	400	500
Energy, 80% DoD [kWh]	240	320	400
Energy, 90% DoD [kWh]	270	360	450
Current Capacity [Ah]	400	600	800
Max/Cont. Discharge Current [A] [1]	360/300	840/700	
Max/Cont. Discharge Power [kW] [1]	265/221	570/475	548/457
Max & Cont. Charge Current [A]	300	600	700
Max & Cont. Charge Power [kW]	221	407	457
Nominal Voltage [V]	736	678	653
Max/Min. Operating Voltage [V]	817/655	753/604	724/581
Max Recommended Inverter Total Rated Power (cont.) [kVA]	300	400	500
Short Circuit Current [kA]	10	15	19
Battery Dimensions - H x W x D [mm] [2]	1460x2410x730	1576x2870x730	1406x3850x750
Crated Dimensions - H x W x D [mm]	1575x2645x815	1695x3105x835	1575x3990x835
Battery Weight [kg]	2238	3098	3918
Crated Weight [kg]	2426	3332	4198
DC Connection Power Cables (no. per electrode) [mm^2] [3]	1 x 185mm^2 Helukabel NSGAF öU	1 x 185mm^2 PolyBraid	
Round Trip Efficiency [%]	96-97		
Enclosure	3mm thick Aluminium, powder coated, tamper proof, indoor use		
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	RJ45 Ethernet connection for diagnostics & troubleshooting through eConnect. RJ45 CAN Strictly for BMS & inverter communication		
Human Interface	On and Off buttons, State of Charge display (0 to 100%), error light, error reset button, RJ45 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 prismatic cells of 200Ah each and 3.2V nominal voltage, laser welded electrode connections		

Notes to Specification Sheet

The LiTE 2 Commercial high voltage range is available in HV and HV+. HV models are suitable for the Freedom Won Encore HPS50, 100 and 150 hybrid battery inverters. HV+ is suitable for Freedom Won Encore HPS250 and 500 battery inverters and associated DC charge controllers.

1. 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. Derating will apply outside this temperature range.
2. Excluding protrusions.
3. Battery power connection cables 4.0m long as standard, power cable Red = Positive, Black = Negative, conductors in the 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 battery power connection cables exit the battery on the right-hand side near the floor on all the LiTE 2 Commercial HV and HV+ models. This is to suit bottom entry floor standing 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 30°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 Reseller Installer for further sales and technical support.

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Battery Cooling	Forced air cooling		
Suitable Ambient Temp [°C] [4]	10°C to +25°C		
Extreme Operating Temp [°C] [4]	-20°C to +55°C		
Remote Monitoring	Real time data logging and remote monitoring over Ethernet. Internet connection required		
Warranty [5]	Standard Warranty: 10 years (or 6000 cycles) 80% DoD, 0.5C Max Discharge, 0.25C Max Charge, Max 25°C		
Service Life [5]	>16 years (>6000 cycles) expected life at 80% DoD per cycle		
Battery Standards	Designed and built according to IEC62619, IEC62040, IEC61000, UN38.3		

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