LITE 2 COMMERCIAL HV RANGE

Range Overview Specification Sheet

freedom WON

	Commercial 100/80 HV	Commercial 200/160 HV	Commercial 230/184 HV	Commercial 300/240 HV	Commercial 400/320 HV	Commercial 500/400 HV
Total Energy Capacity [kWh]	100	200	230	300	400	500
Energy, 80% DoD [kWh]	80	160	184	240	320	400
Energy, 90% DoD [kWh]	90	180	207	270	360	450
Current Capacity [Ah]	200	400	400	600	800	1000
Max & Cont. Charge Current [A]	200	360	300	600	700	700
Max & Cont. Charge Power [kW]	102	184	173	307	358	358
Max/Cont. Discharge Current [A] [1]	300/250	432/360	360/300	720/600	840/700	840/700
Max/Cont. Discharge Power [kW] [1]	154/128	221/184	207/173	369/307	430/358	430/358
Nominal Voltage [V]	512	512	576	512	512	512
Max/Min. Operating Voltage [V]	568/456	568/456	639/513	568/456	568/456	568/456
Max Recommended Inverter Total Rated Power (cont.) [kVA]	120	200	230	300	400	400
Short Circuit Current [kA]	5	10	10	15	19	24
Battery Dimensions - H x W x D [mm] [2]	1405x1636x365	1403x1600x721	1388x2300x540	1460x2420x730	1460x2940x730	1450x3520x730
Crated Dimensions - H x W x D [mm]	1600x1790x575	1555x1780x815	1575x2485x630	1575x2570x815	1584x3285x848	1575x3990x835
Battery Weight [kg]	800	1542	1718	2370	3076	4400
Crated Weight [kg]	914	1664	1882	2564	3300	On-Site Build
DC Connection Power Cables (no. per electrode) [mm^2] [3]	1x95mm^2 Helukabel NSGAF öU (Detachable Power Connector)	1x120mm^2 Helukabel NSGAF öU (Detachable Power Connector)		1x185mm^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					
Battery Cooling	Natural Convection (heat generation is negligible inside the battery)			Fan and louver cooling solution		
Suitable Ambient Temp [°C] [4]	10°C to 25°C					
Extreme Operating Temp [°C]	-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					

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 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 the bottom entry of 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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