

Li^{TE} Commercial 52V Range

Li^{TE} Commercial 300/240

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| Total Energy Capacity [kWh] | 300 |
| 80% DoD Energy [kWh] | 240 |
| 90% DoD Energy [kWh] | 270 |
| Current Capacity [Ah] | 6 000 |
| Max. Cont. Charge and Discharge Current ¹ [A] | 2 800 |
| Max & Cont. Charge and Discharge Power ¹ [kW] | 140 |
| Nominal Voltage ² [V] | 52 |
| Max. Inverter Cap. [kVA] | 135 |
| Total Weight [kg] | 2 640 |
| Height [mm] | 1 450 |
| Depth (from wall)[mm] | 725 |
| Length (width along wall)[mm] | 2 209 |
| DC Connection – Fly Leads, [no. per electrode] ³ [mm ²] | 6×120 |
| Round Trip Efficiency | 96-97% |
| Enclosure | 3mm thick Aluminium, powder coated, tamper proof, indoor use |
| External Interface | CAN Bus |
| On-board Management | Comprehensive battery management system and internal trip protection |
| Human Interfaces | 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 |
| 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 |
| Battery Chemistry | Lithium Iron Phosphate (LiFePO ₄) |
| Cell Form Factor | Large Format ultra-heavy-duty prismatic cells of 200Ah each and 3,2V nominal voltage, fully sealed in plastic casing with bolt on electrode connections |
| Battery Cooling | Natural Convection (heat generation is negligible inside the battery) |
| Suitable Ambient Temp [°C] | 0°C to +40°C |
| Extreme Operating Temp [°C] ⁴ | -20°C to +60°C |
| Remote Monitoring | Real time data logging and transmission via WiFi to online portal of key battery information |
| Warranty ⁵ | 10 years or 4 000 cycles for average 80% DoD, and max 90% DoD |
| Service Life – Cycles & Years | >16 years (>5 500 cycles) expected life at 80% DoD per cycle, >20 years (>7 500 cycles) at 50% DoD |

Notes to Specification Sheet

- 1 The maximum (peak) and continuous current and power ratings are the same for the Li^{TE} Commercial battery range. The maximum values given apply to both charge and discharge. For systems requiring more than 140kW, two or more batteries must be installed in parallel.
- 2 For higher battery voltages refer to the Freedom Won Li^{TE} Commercial HV and HV+ ranges.
- 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 5m long available at extra cost (must be specified in order). Note that the fly leads exit the battery on the right end side near the top.
- 4 Charging below 0°C not permitted. Extended time above 45°C not recommended for optimal battery life.
- 5 See Freedom Won Warranty document for further detail.

Note: All models are available fully built ex-factory. If you require the battery to be assembled on site for logistical reasons relating to the battery weight, please specify in the order (additional costs will apply)

LITHIUM BATTERY SOLUTIONS SINCE 2010

FROM YOUR TRUSTED BATTERY PARTNER

freedomwon.co.za | +27 (0) 10 597 7794

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