

Li<sup>TE</sup> Industrial Range

## Li<sup>TE</sup> Industrial 800/640 HV+

|   |  |
|---|--|
| Total Energy Capacity [kWh] <sup>1</sup>                      | 800  |
| 80% DoD Energy [kWh]  | 640  |
| 90% DoD Energy [kWh]  | 720  |
| Current Capacity [Ah]   | 1200   |
| Max. & Cont. Charge and Discharge Current [A]                 | 800  |
| Max. & Cont. Charge and Discharge Power [kW]                  | 538  |
| Nominal Voltage [V]   | 672  |
| Max/Min Operating Voltage [V]                                 | 746/599  |
| Max. Inverter Capacity [kVA]                                  | 500  |
| Total Weight [tonne]  | 7  |
| Height [mm]   | 1395   |
| Depth [mm]  | 730  |
| Length [mm] <sup>5</sup>                                      | 5580   |
| DC Cables (no. per electrode) [mm <sup>2</sup> ] <sup>2</sup> | 1x185  |
| Round Trip Efficiency   | 96-97%   |
| Enclosure   | Heavy duty custom aluminium 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).          |
| External Interface  | CAN Bus  |
| On-board Management   | Full battery management system and internal trip protection  |
| Human Interfaces  | 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 <sub>4</sub> )  |
| Cell Form Factor  | Large Format heavy duty prismatic cells of 200Ah each and 3.2V nominal voltage, fully sealed in aluminium casing with laser welded electrode connections   |
| Battery Cooling   | Fan cooled   |
| Suitable Ambient Temp [°C]                                    | 0°C to +35°C   |
| Extreme Operating Temp [°C] <sup>3</sup>                      | -20°C to +60°C   |
| Warranty <sup>4</sup>   | 10 years or 4000 cycles for average 80% DoD, and max 90% DoD   |
| Service Life - Cycles   | >16 years (>5 500 cycles) expected life at 70% DoD per cycle, >20 years (7 500 cycles) at 50% DoD  |

### Notes to Specification Sheet

- For capacity more than 800kWh, multiple of these models must be configured in parallel on the same DC bus or with separate DC bus with inverters linked on the AC bus.
- Fly Leads 4m 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 these fixed DC cables exit the battery enclosure on the right-hand end near the floor. This is to suit the bottom entry design of the floor standing ATESS inverters. A cable trench is recommended (where possible) for routing this cable along with all the other cables going to and from the inverter(s).
- Charging below 0°C not permitted. Extended time above 35°C not recommended for optimal battery life.
- See Freedom Won warranty document for further detail.
- Excluding protrusions

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