



## Freedom Lite Telecoms 19" Rack Mount LiFePO4 Energy Storage

Freedom Lite U Model	5U 5/4	7U 10/7	7U 20/14
Max Energy, 100% DoD [kWh]	5	10	20
Energy, 70% DoD [kWh] (1)	3.5	7	14
Nominal Voltage [V](2)	52		
Current Capacity [Ah]	100	200	400
Max/Cont Current [A] (3)	80		125
Max/Cont Power [kW] (3)	4,2		6
Weight [kg]	63	116	2 x 116
Enclosure	Aluminium – powder coated, IP54 enclosure rating, includes four handles for easy handling and installation, rack shelf excluded. 7U 20/14 consists of two modules (primary and secondary) the same size as the 7U 10/7		
Dimensions as mounted in rack	Height – 5U (222mm) Width – 444mm Depth – 582mm	Height – 7U (308mm) Width – 444mm Depth – 582mm	2 x modules with same dimensions as 7U 10/7
DC Connection – Fly Leads, [per positive and negative] (4)	1 x 16mm <sup>2</sup>		1 x 35mm <sup>2</sup>
Protection	Shunt Trip Circuit Breaker sized to suit max current, tripped by BMS if critical fault (incl. overcurrent, cell under and over voltage, temperature, weak cell detection, minimum SOC control), manual reset		
Warranty	10 year (or 3500 cycles) warranty for 70% average DoD and max 100% DoD		
Service Life [5]	13-15 yrs (5000 cycles) expected life at 70% average DoD, 20 years at 50% average DoD (7 000 cycles)		
Human Interface	Serial RS232 Plug for PC Programming, <i>Optional</i> - State of Charge Display (0 to 100%) with Error Light, Error Reset Button,		
External Interfacing	CAN Bus for compatible inverters and charge controller communication and control <i>Optional</i> – Digital and Analogue Outputs if CAN integration not available <i>Optional</i> – WiFi data logging of battery information to internet portal		
Expandability	Multiple units may be connected in parallel as “Master” with “Slave(s)” for increased capacity (Slaves must be specified with order)		

- 1) DoD = Depth of Discharge, recommended average daily 70% DoD for extended life in high cycling applications. Max allowable DoD is 100%.
- 2) Voltage suitable for 48V inverters. 26V option also available.
- 3) Upgrade options available for higher power
- 4) Fly Leads 1,6m long, power cable Red = Positive, Black = Negative, conductors in table refer to one electrode i.e. per positive and negative connections. Longer cables or enclosure mounted DC plug option available on request.
- 5) End of Life (EoL) defined as cell dropping to 70% of BoL capacity.