

freedom WON

Green Energy Solutions & Electric Mobility
Plug Into the *Current Future*

Freedom Lite	Home 5/4	Home 10/7	Home 15/11	Home 20/14	Home 30/21	Business 40/28	Business 60/42	Business 80/56
Max Energy [kWh]	5	10	15	20	30	40	60	80
Energy, 70% DoD [kWh] (1)	3,5	7	11	14	21	28	42	56
Energy, 90% DoD [kWh]	4,5	9	13,5	18	27	36	54	72
Current Capacity [Ah]	100	200	300	400	600	800	1200	1600
Max/Cont. Current [A] (2)	250/200	250/200	375/300	375/300	750/600	750/600	1000/800	1000/800
Max/Cont. Power [kW] (2)	13,0/10,4	13,0/10,4	19,5/15,6	19,5/15,6	39,0/36,4	39,0/36,4	52,0/31,2	52,0/31,2
Max Recommended Inverter Rated Power (cont.) [kVA]	8	8	12	12	24	24	36	36
Nominal Voltage [V]	52V, to suit 48V Inverters, min 47V, max 56V							
Weight [kg]	60	108	158	211	310	412	613	811
Dimensions on or against wall - Height x Width x Depth [mm]	550x372x265	916x372x265	916x540x265	916x712x265	953x1044x265	1850x584x310	1850x859x310	1858x1142x310
Enclosure	Aluminium – powder coated white front rated for indoor use							
DC Connection – Fly Leads, [no. per electrode] (3)	1x 50mm ²	1 x 50mm ²	2 x 50mm ²	2 x 50mm ²	2 x 90mm ²	2 x 90mm ²	2 x 120mm ²	2 x 120mm ²
External Interfacing – (4)	<p><i>DB15 Plug</i> – 48V Relay Control and Analogue Outputs. Relay control – Separate Remote Enable for Inverter, Charger, Solar Charge Controller and a Multi-Purpose Programmable Output. Analogue Outputs – 0-5V Signals for Charge Current Limit, State of Charge.</p> <p><i>RJ45 Socket x 2</i> – CAN Bus for Interfacing with Compatible Inverters and System Controllers, connection of parallel batteries.</p>							
Protection	Shunt Trip Circuit Breaker sized to suit max current, can be tripped by BMS if critical fault, manual reset. Includes overcurrent, cell under and over voltage, temperature, weak cell detection, minimum SOC control							
Human Interface	State of Charge Display (0 to 100%), Error light, Error Reset Button, Serial RS232 Plug for Programming, WiFi remote monitoring (optional accessory)							
Warranty [5]	10 years (or 3 500 cycles) warranty for average 70% DoD, and max 90% DoD							
Service Life [5]	15 years (or 5 500 cycles) expected life at 70% DoD (1), 20 years (>7 000 cycles) at 50% DoD							

- 1) DoD = Depth of Discharge max allowable 90% DoD, recommended 70% average daily DoD for extended life, 50% DoD for optimal life.
2) End of Life (EoL) defined as battery dropping to 70% of Beginning of Life (BoL) capacity.

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lithium iron phosphate (LiFePO₄)
the next generation in energy storage