

# LITE MARINE RANGE

## Range Overview Specification Sheet

freedom  
WON



	LiTE Marine 5/4			LiTE Marine 10/8			LiTE Marine 20/16			LiTE Marine 30/24		
Total Energy Capacity [kWh]	5			10			20			30		
Energy, 80% DoD [kWh]	4			8			16			24		
Max/Cont. Discharge Current [A] <sup>1</sup>	200/100 (52V)	300/200 (26V)	300/300 (13V)	300/200 (52V)	300/300 (26V)	300/300 (13V)	480/400 (52V)	480/480 (26V)	480/480 (13V)	480		
Max & Cont. Charge Current [A]	100 (52V)	200 (26V)	300 (13V)	200 (52V)	300 (26V)	300 (13V)	400 (52V)	400 (26V)	400 (13V)	400		
Nominal Voltage [V]	Available in 13V, 26V and 52V options											
Max. Recommended Inverter Total Rated Power (cont.) [kVa]	8 (52V)	8 (26V)	4 (13V)	10 (52V)	8 (26V)	4 (13V)	15 (52V)	12 (26V)	6 (13V)	25 (52V)	12 (26V)	6 (13V)
Max. Daily DoD Suggested (average)	80% DoD											
Battery Dimensions - H x W x D [mm] <sup>2</sup>	265x600x330			280x870x330			280x870x600			282x1170x600		
Crated Dimensions - H x W x D [mm]	406x696x448			416x986x478			478x986x716			478x1306x706		
Total Weight [kg]	49			89			173			254		
Crated Weight [kg]	64			111			203			294		
DC Connection - Fly Leads (no. per electrode) [mm <sup>2</sup> ] <sup>3</sup>	Helutherm 145 1x50 (Marine Approved)						Helutherm 145 1x120 (Marine Approved)					
Round Trip Efficiency [%]	96-98											
Enclosure	Aluminium powder coated, tamper proof, waterproof IP65 corrosion resistant, handles or eye bolts for lifting, rubber feet. Suitable for partially protected areas away from direct sunlight and extreme moisture											
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	CAN Bus (Note that an external relay control harness is an optional item and must be specified with the order if the application needs the battery to control relays such as for alternator regulator remote enable)											
Human Interface	USB plug for programming and data access with PC, main breaker, Error Reset button, SoC display, Error light											
On-board Management	Full battery management system and internal trip protection											
Battery Cooling	Natural convection (heat generation is negligible inside the battery)											
Suitable Ambient Temp [°C] <sup>4</sup>	0°C to +35°C											
Extreme Operating Temp [°C] <sup>4</sup>	-20°C to +60°C											
Warranty <sup>5</sup>	Standard Warranty: 10 years (or 6000 cycles) 80% DoD, 0.5C Max Discharge, 0.25C Max Charge, Max 25°C											
Service Life	>16 years (>5500 cycles) expected life at 80% DoD, >20 years (>7500 cycles) at 50% DoD											
Essential Accessories	Note that for connecting the battery to a PC a USB "printer" cable is required (one is supplied with each battery) CAN Bus Termination Resistor - one required per battery (one included with battery) CAN Bus Cable (RJ45 LAN Cable) - one required per battery (not supplied with battery). Note some inverters will require a special (non-standard pin configuration) cable - see installation manual.											

### Notes to Specification Sheet

This range is not designed for direct exposure to salt water such as for above deck on a small boat. The intended use is below deck away from actual water spray. The product is also recommended for use on seaside properties where airborne sea moisture is present.

1. Max discharge load (current) duration where lower than continuous - 30 seconds per 60 second cycle. 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. Including end handles or eye bolts.
3. DC Cables 1,8m long, power cable Red = Positive, Black = Negative, conductors in table refer to one electrode i.e. per positive and negative connections.
4. Charging below 0°C not permitted. Extended time above 45°C not recommended for optimal battery life.
5. Warranty is 10 years of 6000 cycles at an average of 80% DoD per cycle, 60% capacity guaranteed by end of warranty. End of Life (EoL) defined as cell dropping to 60%. This warranty applies to LiTE units sold after 1 September 2019. For LiTE units sold prior please contact Freedom Won for warranty information.

DISTRIBUTORS AND RESELLERS

Contact your nearest Accredited Freedom Won Distributor or Reseller Installer for further sales and technical support.

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