



VLEG 1638C

BATTERY

SPECIFICATION



Overview

VLEG 1638C is 51.2V32Ah Lithium iron phosphate battery module system which designed for energy storage power supply system application. This battery module integrated with intelligent BMS inside, has big advantages on safety, cycle life, energy density, temperature range and environmental protection. This product specification describes the type, size, structure, electrochemistry performance, service life, and BMS characteristics. This specification only applies to the battery module supplied by Voltgo.



Battery Module Features



Simple

Easily installation and capacity expansion,
Maintenance-free (15Y design life).



Intelligent

Real-time monitoring & control, Passive balance,
Bluetooth display, Low-temp heating.



Safe

LFP cell & system safety design.



Performance

High energy density, Excellent service life & Wide
operation temperature range.

Battery Module Specification

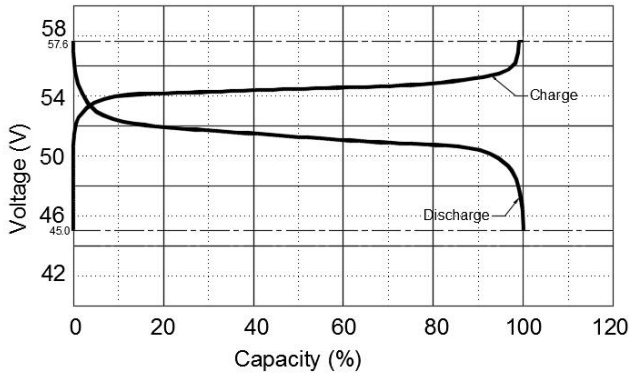
Model	VLEG 1638C
Basic Parameter	
Rated Voltage [V]	51.2
Rated Capacity [Ah]	32
Rated Energy [Wh]	1638
Operation Parameter	
Voltage Range [V]	44.8~56.0
Cut-off Voltage [V]	44.8
Recommend Charge Voltage [V]	56.0~57.0
Recommend Charge Current [A]	10
Max Charge Current [A]	32
Max Discharge Current [A]	96
Internal Resistance [mΩ]	15
Physical Parameter	
Dimension: W*D*H [mm]	261*181*272
Weight [kg]	15±0.5
Display Method	Bluetooth/LED
Environment Parameter	
Humidity [%]	5-95% RH
Charge Temperature Range [°C]	0-45(<0°C, start heating)
Discharge Temperature Range [°C]	-20-50
Storage Temperature Range [°C]	-20-60
Service Life	
Cycle Life	> 6000 (0.5C@ 25°C ,80%DOD)
Design Life [Year]	15
Certification	
Transportation	UN38.3

BMS Parameters

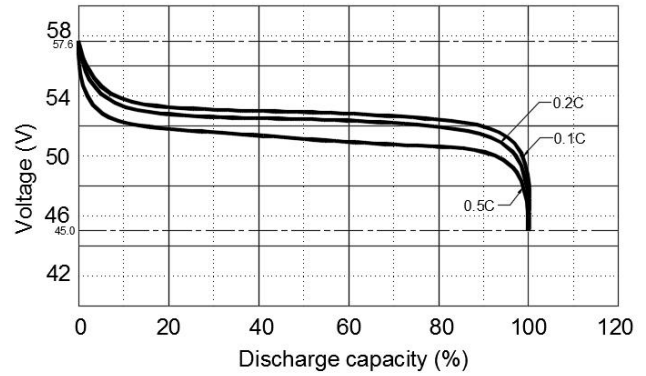
Item	VLEG 1536A	Remark
Charge		
Cell Over-voltage protection [V]	3.8	Recovery @ 3.45V
Module Over-voltage protection [V]	60.0	Recovery @ 55.2V
Over-current protection 1 [A]	>35	Delay 1 0 s
Over-current protection 2 [A]	>45	Delay 3 s
Over-temperature- protection [°C]	<-5 or >70	Recovery @ >0 or <60
Discharge		
Cell low-voltage protection [V]	2.3	Recovery @ 3.1V
Module low-voltage protection [V]	44.8	Recovery @ 48.0V
Over-discharging current 1 [A]	>150	Delay 10s, Recovery in 60s
Over-discharging current 2 [A]	>200	Delay 6s, Recovery in 60s
Short circuit [A]	>500	0.1ms
Temperature protection [°C]	<-20 or >75	Recovery@ >-10 or <65
Other Function		
PCB Temp protection [°C]	>105	Recovery @ <80
Cell balance [mA]	120mA	Passive balance
Temperature accuracy [%]	3%	Measuring range -30~150°C
SOC accuracy [%]	5%	Integral calculation
Power consumption	≤300uA	Sleep mode
	≤14mA	Operating mode
Communication ports	CAN, RS485	Can be customized to match the devices

Battery Performance Curve

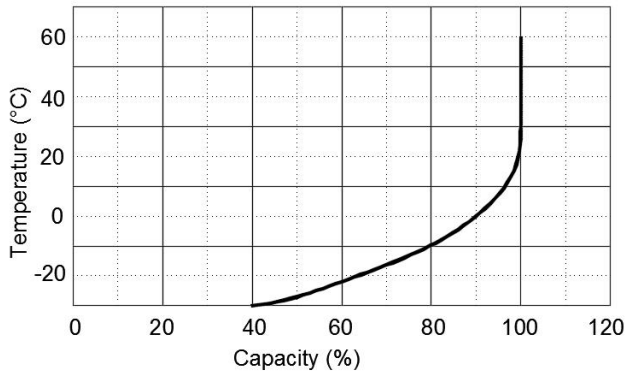
Charge & Discharge curve with 0.5C @ 25°C



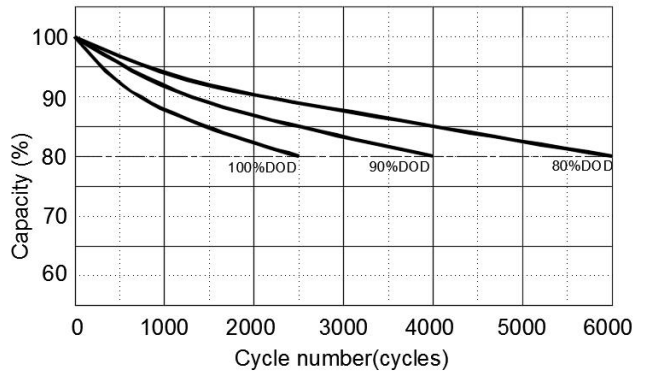
Discharge performance with different rate @ 25°C



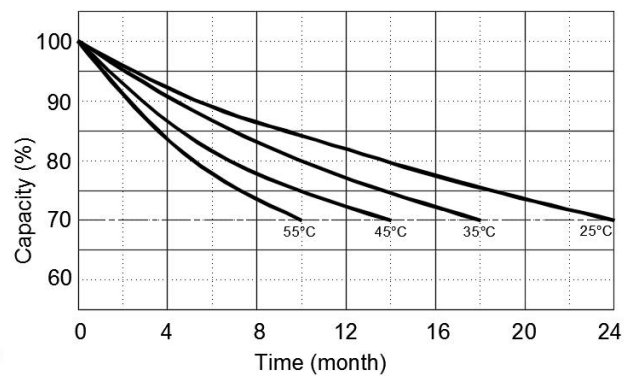
Discharge capacity with different temperature @ 0.5C



Cycle life with DOD @ 0.5C, 25°C



Self-discharge @ different temperature



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