



# FUSION LITHIUM BATTERY

## V-LFP-12-28

### LITHIUM IRON PHOSPHATE BATTERY

#### PERFORMANCE

- Long Cycle Life >2000 cycles @ 100% DOD.
- High Density, High Discharge Current, High Temperature Range.
- Low Weight, Maintenance Free.
- Fast Charging.
- Environment Friendly.

#### FEATURES

- Lithium Iron Phosphate (LiFePO<sub>4</sub>)
- Integrated Battery Management System (BMS)
- BMS Intelligent Cell Balancing
- Sealed ABS Plastic Housing

#### BATTERY DATA SHEET

##### Electrical Parameters

Nominal Voltage	12V
Rated Capacity	28Ah
Energy	336Wh
Resistance	≤30m Ω
Efficiency	99%
Cycle Life	>2000 cycles @ 1C, 100% DOD
Self Discharge	2% per Month
Max. Battery connected in Series	4PCS
Max. Battery connected in Parallel	20PCS

##### Discharge Parameters

Continuous Discharge Current	30A
Peak Discharge Current	120A (10 seconds)
Recommended Volt. Disconnect	10V
BMS Discharge Cut-off Voltage	8V
Reconnect Voltage	9.2V
Short Circuit Protection	200~600 us

##### Compliance Certificate

Certifications	UL1642, UL2054
	CE
	IEC62133 & CB
	KC
	BIS
Shipping Classification	UN3480, Class 9, UN38.3

##### Mechanical Parameters

Dimension (L x W x H)	181 x 77 x 167 mm
	7.13 x 3.03 x 6.57"
Weight	2.97kg (6.55lbs)
Terminal Type	M5
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP65
Cell Type-Chemistry	LiFePO <sub>4</sub> Cell
SOC Display (Optional)	None

##### Charge Parameters

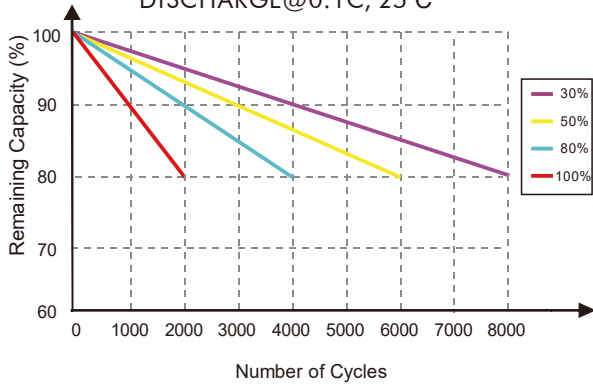
Charge Method	CC-CV
Charge Voltage	14.4~14.8V
Recommended Float Voltage	13.8V
Recommended Charge Current	15A
Maximum Charge Current	30A
BMS Charge Cut-off Voltage	15.6V

##### Temperature Parameters

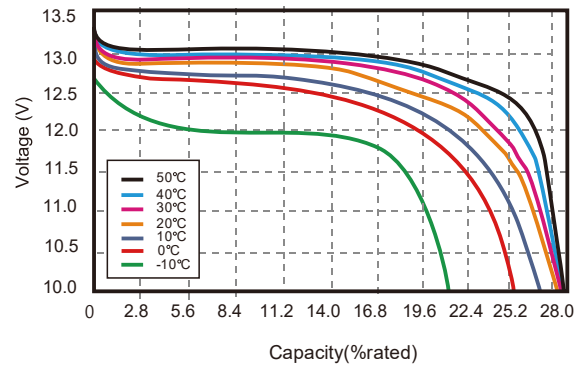
Discharge Temperature	-20 to 60°C (-4 to 140°F)
Charge Temperature	0 to 45°C (32 to 113°F)
Storage Temperature	-25 to 60°C (-13 to 140°F)
BMS Low Temperature Cut-off	-10°C (14°F)
BMS Low Temperature Turn-On	0°C (32°F)
BMS High Temperature Cut-off	65°C (149°F)
BMS High Temperature Turn-On	48°C (118.4°F)

## Performance Characteristics

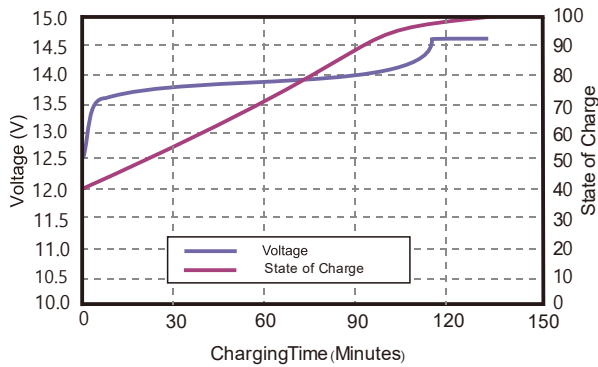
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.1C, 25°C



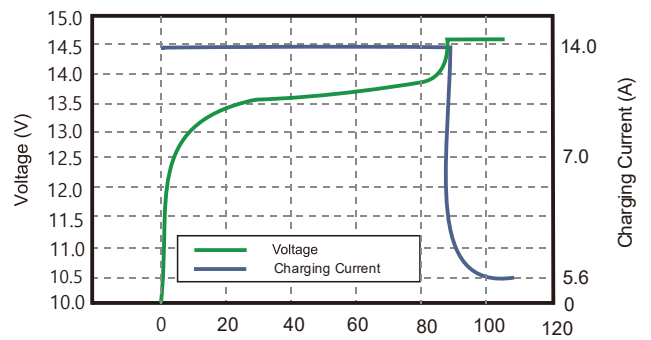
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @ 1C, 25°C



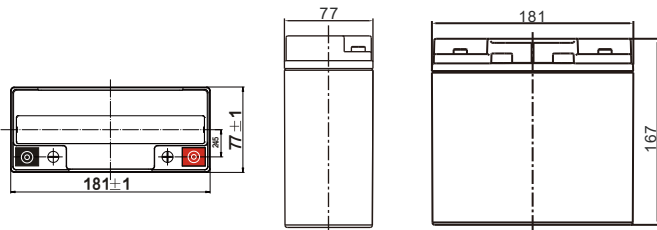
STATE OF CHARGE CURVE @0.5C, 25°C



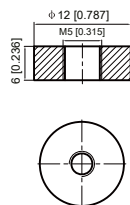
CHARGING CHARACTERISTICS @0.5C, 25°C



## Battery Dimension



M5  
Terminal



## Battery Applications

- + Marine (House Batteries)
- + RV / Camping (Automotive)
- + Data Center UPS
- + Telecom Backup Power
- + Military Power Supply
- + Solar Energy Storage System
- + Solar Street LED Lightings
- + Autonomously Guided Vehicles (AGVs)
- + Industrial Robotics & Handling Equipment
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Electric Bike & Motorcycles
- + Electric Mobilities( E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Medical Devices
- + Electric Boats
- + Electric Fences

**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling. See FUSION User's Manual for Proper Operation. Fusion Lithium BATTERIES. All Rights Reserved.



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