



FUSION BATTERY

LITHIUM

V-LFP-12-20

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 (LiFePO₄)
- Integrated Battery Management System (BMS)
- BMS Intelligent Cell Balancing
- Sealed ABS Plastic Housing

BATTERY DATA SHEET

Electrical Parameters

Nominal Voltage	12.8V
Rated Capacity	20Ah
Energy	256Wh
Resistance	≤30mΩ
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	20A
Peak Discharge Current	60A (5 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	3.0kg (6.6lbs)
Terminal Type	M5
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP65
Cell Type-Chemistry	LiFePO ₄ 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	10A
Maximum Charge Current	20A
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)

HEAD OFFICE

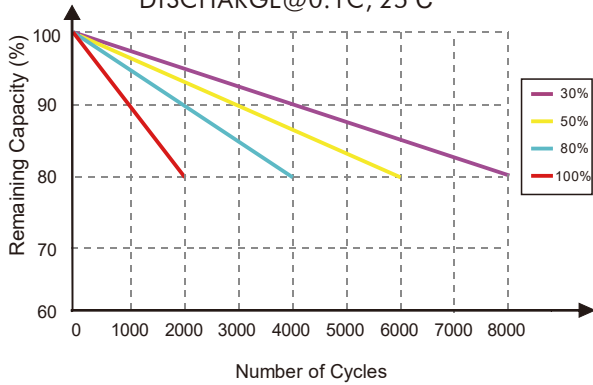
Unit 30 76 Hume Highway LANSVALE NSW 2166

Tel: +(02) 9755 7851 Fax: +(02) 9755 7852

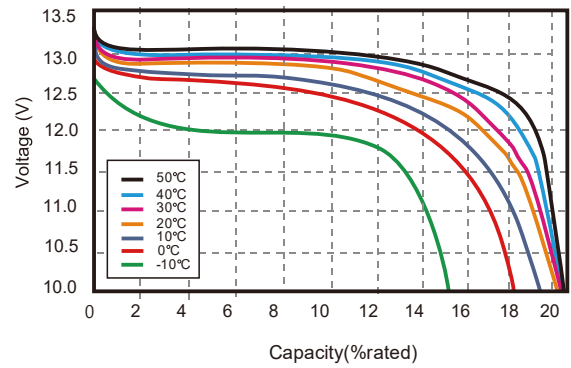
Email: batteries@superstart.com.au

Performance Characteristics

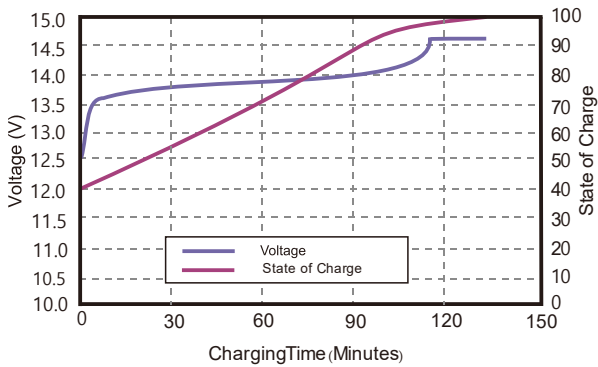
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25°C



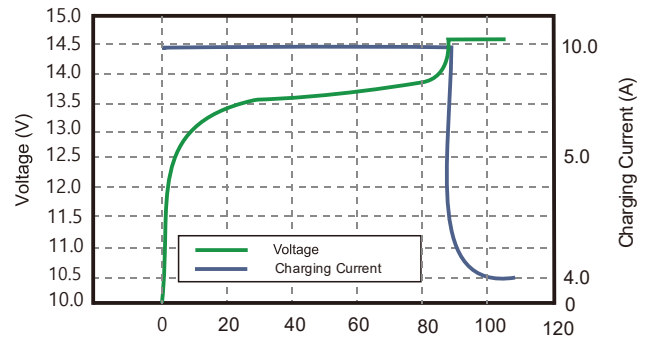
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @ 1C, 25°C



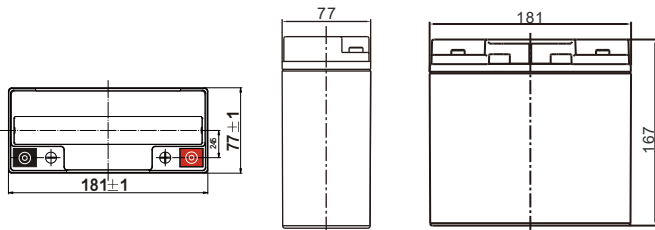
STATE OF CHARGE CURVE @0.5C, 25°C



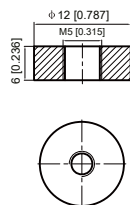
CHARGING CHARACTERISTICS @0.5C, 25°C



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.
See Fusion user manual for operating Procedures.
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