

LiFe 40-24

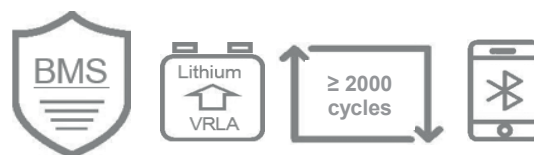
24V / 40Ah

Lithium - Iron Phosphate



Features

High energy density
Automatic protection with battery management system (internal)
Low self-discharge
Long cycle life
Excellent performance in all operating temperatures
Cost effective
Fast charge
Drop-in replacement
Guaranteed Safety



Nominal characteristics

Nominal Voltage	: 25.6V
Nominal capacity	: 40Ah
Energy	: 1024Wh
IR	: $\geq 25\text{m}\Omega$ @100% SOC
Efficiency	: $\geq 99.5\%$
Maximum Modules in Series	: 1 (Single Use)

Mechanical characteristics

Case Material	: ABS
Dimensions (LxWxH)	: 258x166x215 mm
Weight	: 10.5kg $\pm 3\%$
Terminal Type	: F12 (M8)
BCI Group No.	: 24
Cell Type-Chemistry	: Prismatic LiFePO ₄

Charge & discharge characteristics

Voltage Window	: 21.6 - 29.2V
Max. Continuous Charge	: 40A
Max. Continuous Discharge	: 40A
Peak Discharge Current	: 80A ($\geq 10\text{s}$)
Recomm. Charge Current	: 20A
Recomm. Discharge Current	: 20A

Operating Conditions

Cycle Life	: ≥ 2000
Operating Temperature	: Charge 10°C ~ 45°C Discharge -20°C ~ 55°C
Storage Temperature	: 20°C ~ 30°C
Storage Duration	: 12 months at 25°C

BMS characteristics

Primary Charging Protection	: Current	55~65A
	: Delaytime	30 $\pm$ 2s
Secondary Charging Protection	: Current	$\geq 65\text{A}$
	: Delaytime	2 $\pm$ 1s
Primary Discharging Protection	: Current	55~85A
	: Delaytime	15 $\pm$ s
Secondary Discharging Protection	: Current	80~150A
	: Delaytime	2 $\pm$ 1s
Over-charge Voltage Protection	: Voltage	$\geq 30.8\text{V}$
	: Delaytime	1~2s
Over-discharge Voltage Protection	: Voltage	$\geq 18.4\text{V}$
	: Delaytime	1~2s
Temperature Protection	: PCB Temp.	$\geq 80^\circ\text{C}$
	: Recover	$\leq 65^\circ\text{C}$

Constant Current Discharge Data (Amp @25°C)

	1h	2h	3h	5h	10h
Cut-off voltage (21.6V)	40A	20A	13.3A	8A	4A

Constant Power Discharge Data (Watt @25°C)

	1h	2h	3h	5h	10h
Cut-off voltage (21.6V)	925W	473W	324W	195W	104W

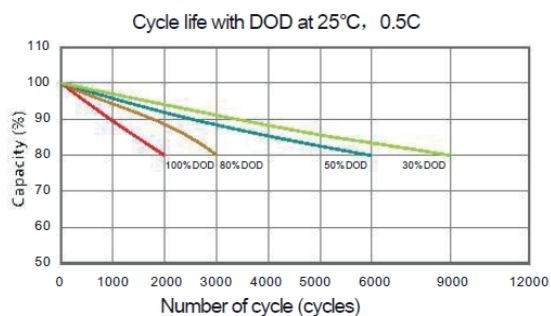
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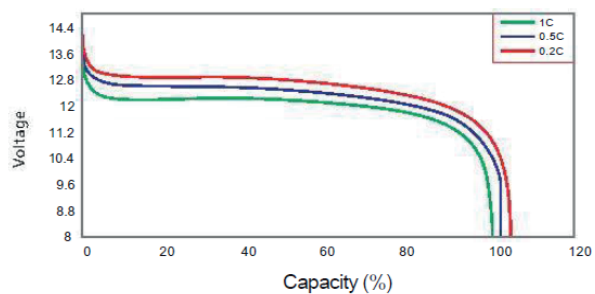
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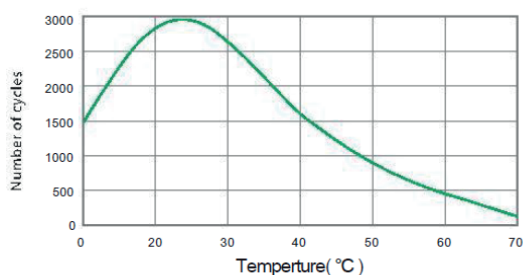
Number of Cycles Vs. DOD



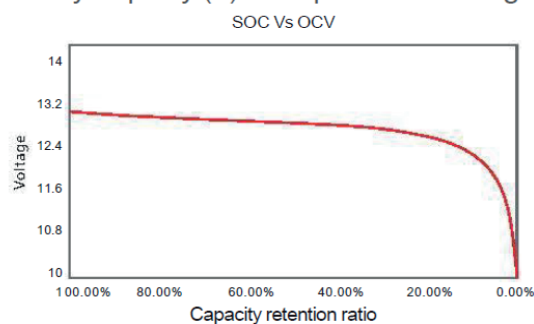
Discharge Performance at R.T.



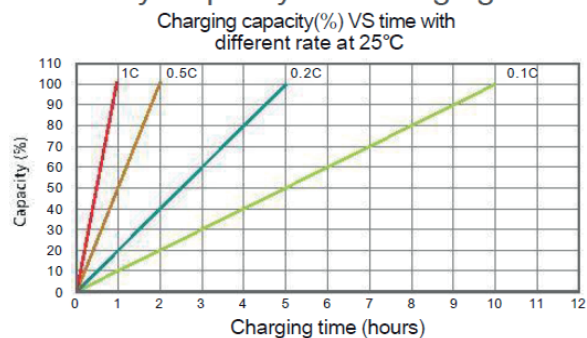
Cycle Life in Relation to Temperature



Battery Capacity (C) Vs. Open Circuit Voltage (OCV)



Battery Capacity Vs. Charging Time



Temperature Effects on Capacity

