

# LOW VOLTGE ENERGY STORAGE SYSTEM CABINET MODEL

## The design idea of cabinet model

The cabinet model designed for indoor photovoltaic system is easily adaptable energy storage solution. The cabinet model are a family of 48V battery modules and accessories. The 48V family is designed as a drop-in replacement for similar sized lead-acid batteries offering twice the run-time and nearly half the weight.

The 48V series is designed for lower voltage, lower power and longer run-time applications. They are built with LFP Technology that offers outstanding intrinsic safety and excellent float and cycle life resulting in low cost of ownership.



## Key Features



### Safety and Long cycle life

LiFePO4 composition - provides exceptional safety and longevity High safety and reliability 6,000cycles and 10 year service life



### Smart & Intelligent

Integrated state-of-the-art BMS to manage and monitor battery information including voltage, current and temperature as well as balance cell charging/discharging rates



### Easy installation

Wall/Ground-mounted, convenient installation



### Modularization

With smart BMS, the power-wall model can be cross connected to fix large capacity.

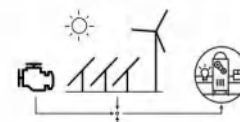
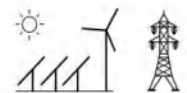
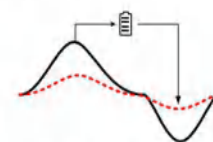


### Compatibility

Compatible with most of the available hybrid inverter



### Applications



## Nominal Parameters

Battery Technology	Lithium iron Phosphate (LiFePO4)			
Model	B-LFP48-50	B-LFP48-100	B-LFP48-150	B-LFP48-200
Rated Voltage (V)	51.2	51.2	51.2	51.2
Rated Capacity (Ah)	50	100	150	200
Energy (kWh)	2.50	5.00	7.50	10.00
Dimension one (mm)	W442*H132*D600mm (max)	W442*H177*D600mm (max)		W442*H177*D800mm (max)
Dimension two (mm)	-	-		W442*H220*D800mm (max)
Weight (Kg)	28	48	85	98
Design life (25°C)	15 years			
Cycle Life (25°C)	6000 cycles			

## Electrical Characteristics

Voltage Range (V) DC	44.8 to 58.4V DC			
Standard charge current (A)	10A (0.2C)	20A (0.2C)	30A (0.2C)	40A (0.2C)
Standard discharge current (A)	10A (0.2C)	20A (0.2C)	30A (0.2C)	40A (0.2C)
Max continuous charge current (A)	50A (1C)	100A (1C)	100A (0.67C)	100A (0.5C)
Max continuous discharge current (A)	50A (1C)	100A		
Battery Pack Round-Trip Efficiency	>95% (under specific condition)			
Communication Interface	RS485/CAN			
DC Disconnect	Circuit Breaker, Contactor, Fuse			

## Operating Conditions

Installation Location	Indoor / (stand wall-mounted)		
Operating Temperature	Charge	-10 to 45°C	
	Discharge	15 to 30°C	
	Storage	-10 to 45°C	
		25°C	6months
		45°C	3 months
60°C	1 month		
Humidity	5% to 95%		
Altitude	Max. 2,000m		
Cooling Strategy	Natural Convection		

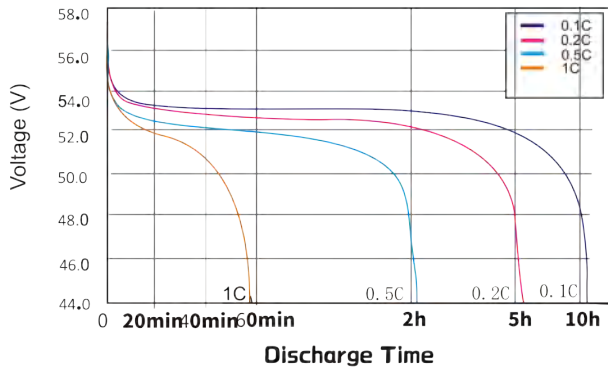
## Certification

Safety	Cell	UL1642
	Battery Pack	CE / RCM / FCC / TUV (IEC 62619) / UL1973
EMC	IEC61000-6-1, IEC61000-6-3	
Hazardous Materials Classification	Class 9	
Transportation		
IP LEVEL	IP54 (IP65 Option)	

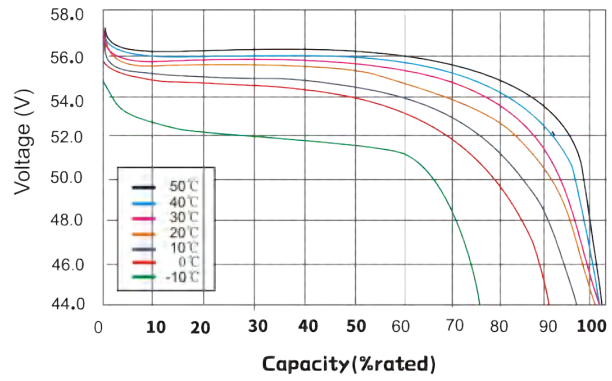
# Discharge Curve

## Characteristics Curve

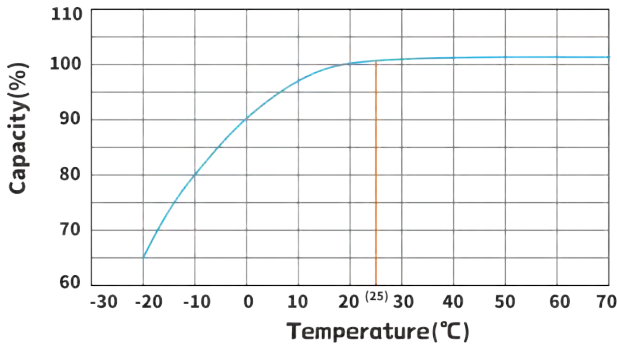
Different Rate Discharge Curve @ 25 °C



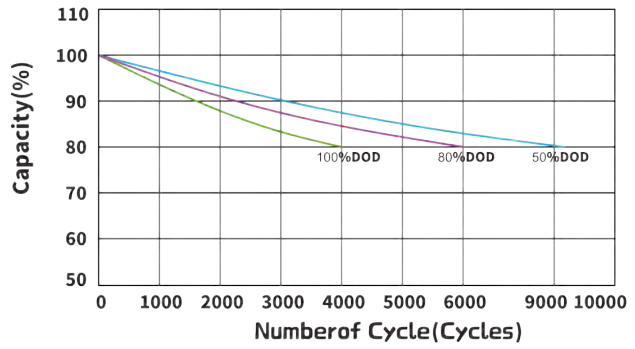
Different Temperature Discharge Curve @ 0.5C



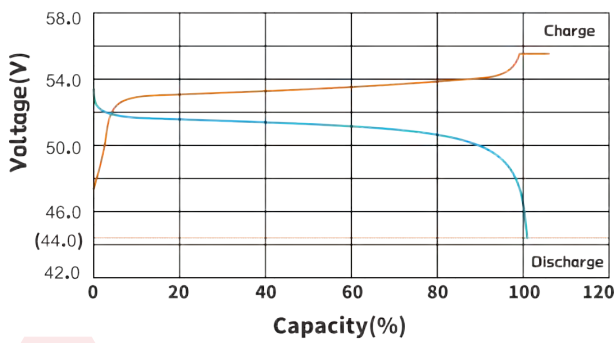
Temperature Effect on Capacity at 0.5C



Cycle Life with DOD at 25 °C  
0.5C Discharge and 0.25C Charge



Charge and Discharge at 25 °C, 0.5C



Different Temperature Self Discharge Curve

