

## LiFe Power Technology provides advanced lithium iron phosphate energy storage solutions.

The **MCB** Battery Series is made for medical emergency storage. High energy storage efficiency and allows fast recharge, it captures most of the energy generated by the solar panel or wind generator. It is built with lithium iron phosphate cell (LiFePO<sub>4</sub>), it offers light weight with extremely high cycle, long calendar life and this battery is capable of very high energy output. This series also design to withstand extreme temperature range (-20°C to 75°C).

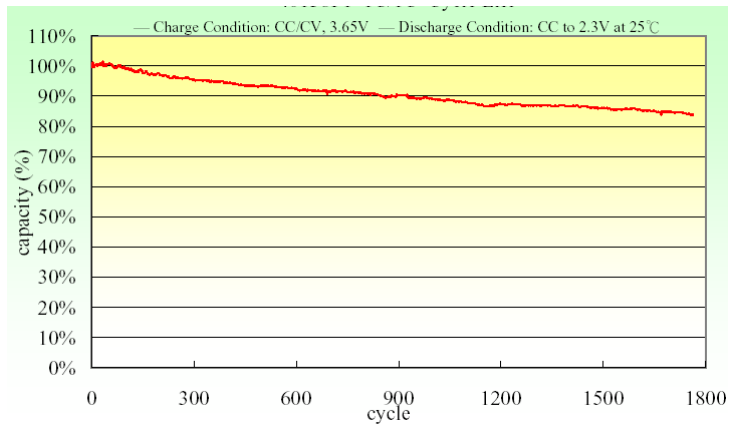
SPECIFICATION	MCB-12V460WM	MCB-12V230WS
System Backup (wh)	460Wh	230Wh/460W
Nominal Voltage (v)	12V	
Output Voltage (v)	12V / 19V / 5V(USB)	12V
Output Power (w)	12V(250W)/19V(100W)/5V(10w) Total Current <20A	12V(250W) Total Current <10A
Nominal Capacity(C/5@25°C)	36 Ah	18 Ah/36 Ah
Capacity display	5 LED or PC	5 LED
Dimension (mm) 尺寸	L197*W131*H175 mm	
Weight	< 7 kg	< 4.8 /6.8kg
Auto wakeup	By wakeup button or charge	
Communication	RS232	RS232
Record	SD card	
BMS Protection	OVP , LVP , OTP , OCCP , ODCP	
Short Protection	BMS and Fuse	
Max. Charge Current	< 20A	< 10A
Charge Voltage	14.6V ±0.2V	
Cell cycle life @C/2 discharge	2000 cycles, 100%DOD@25°C	
Cell cycle life @ 1C discharge	8000cycles, 20%DOD@25°C	
Discharge temperature range	-20°C to 75°C	
Charge temperature range	0°C to 55°C	
Storage temperature range	-40°C to 55°C	
IP rating	IP40	
Technology	LiFePO <sub>4</sub>	

# The Revolutionary Energy Storage Solution

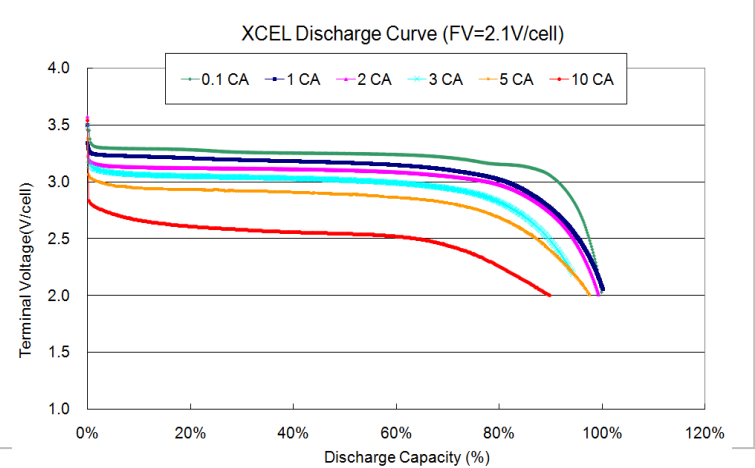
## Key Features:

- High cycles, over 2000 cycles at 80% DOD.
- Continue high energy output, high rate at 2C. (for Cell)
- Built-in automatic protection for over-charge & over-discharge.
- Internal cell balancing. No battery management system required.
- 5 LED for capacity level indicator. (option)
- Internal Shorting Protective Circuitry.
- Communication of monitored data via Battery Management System (BMS)
- Can be charged using most standard chargers
- Fast recharge, can be fully recharged in 1.5~2 hours (option)
- Light weight, 1/2 compare to lead acid battery
- External replaceable fuse for added safety and protection

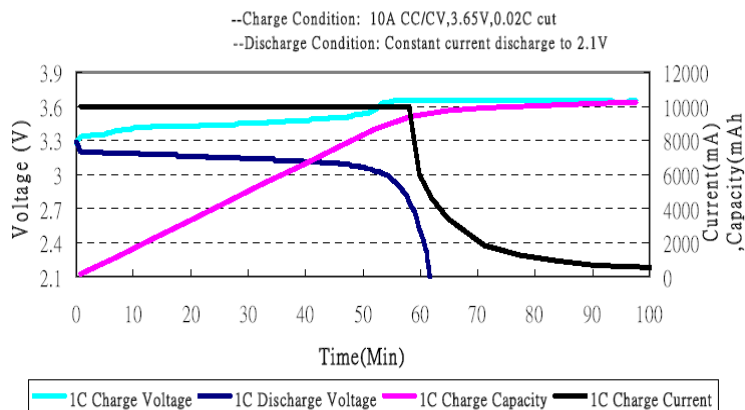
### Cycle Life Performance, 100% DOD



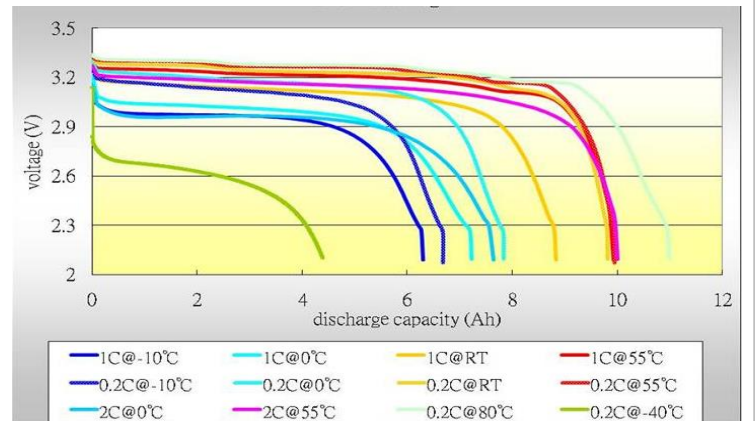
### C rate



### Charge Performance



### Discharge Performance, Various Temperature



## LiFe Power Technology provides advanced lithium iron phosphate energy storage solutions.

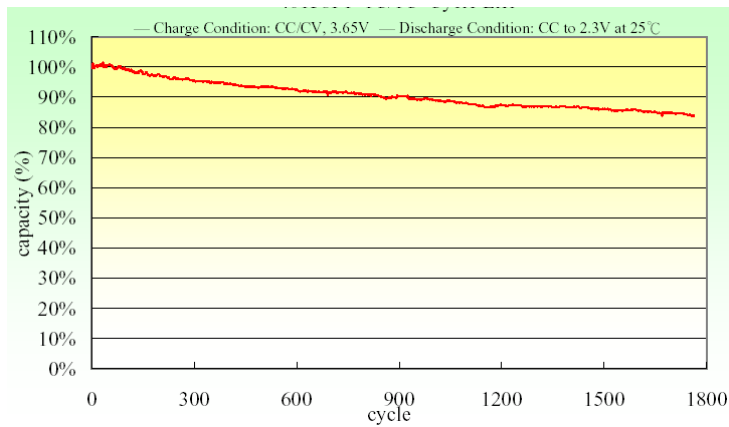
The **MCB** Battery Series is made for medical emergency storage. High energy storage efficiency and allows fast recharge, it captures most of the energy generated by the solar panel or wind generator. It is built with lithium iron phosphate cell (LiFePO<sub>4</sub>), it offers light weight with extremely high cycle, long calendar life and this battery is capable of very high energy output. This series also design to withstand extreme temperature range (-20°C to 75°C).

SPECIFICATION	MCB-140EX-BL	MCB-220FS-SL	MCB-320NP-EXT
Nominal Voltage	12V		
Nominal Capacity(C/5@25°C) Ah	12 Ah	18 Ah	25 Ah
Nominal Capacity(C/5@25°C) Wh	140 Wh	220 Wh	320 Wh
Output Voltage (V)	5V, 12V/16V/19V (optional)		
Communication (to PC)	RS232 (USB)		
Battery Weight (kg)	< 3.6 kg	< 6.5 kg	< 5.1 kg
Dimension (L*W*H mm)	210*180*110mm	330*240*75mm	210*132*165mm
Specific Energy(Cell)	121Wh/kg		
Max. cont. discharge@25°C	<12A	<20A	<20A
Max. pulse discharge(1s)@25°C	15A	25A	25A
Discharge cut-off voltage@25°C	11.2V		
Charge Current ( Built-in charger: AC110~240V, 50/60Hz)	< 10A External charger	< 10A Built-in charger	<20A External charger
Charge Voltage	14.6V ±0.1V		
Cycle life at 0.5C discharge, 80%DOD@25°C	2000		
Cycle life at 1C discharge, 20%DOD@25°C	8000		
Discharge temperature range	-20°C to 75°C		
Charge temperature range	0°C to 55°C		
Storage temperature range	-40°C to 55°C		
Technology	LiFePO <sub>4</sub>		

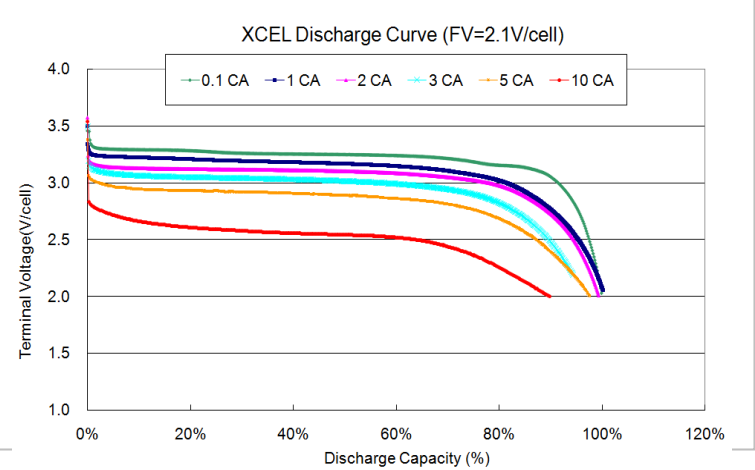
**Key Features:**

- High cycles, over 2000 cycles at 80% DOD.
- Continue high energy output, high rate at 2C. (for Cell)
- Built-in automatic protection for over-charge & over-discharge.
- Internal cell balancing. No battery management system required.
- 5 LED for capacity level indicator. (option)
- Internal Shorting Protective Circuitry.
- Communication of monitored data via Battery Management System (BMS)
- Can be charged using most standard chargers
- Fast recharge, can be fully recharged in 1.5~2 hours (option)
- Light weight, 1/2 compare to lead acid battery
- External replaceable fuse for added safety and protection

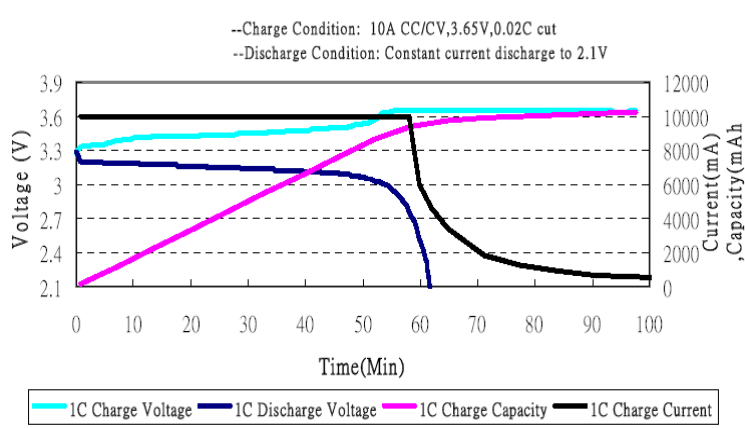
**Cycle Life Performance, 100% DOD**



**C rate**



**Charge Performance**



**Discharge Performance, Various Temperature**

