

Safety

- Cylindrical LiFePO₄ cells (UL1642)
- IEC62133 (cell), IEC62619(cell), UN38.3 (cell/pack)
- ROHS (cell), CE system certification, IP65 Rating

Design

- Standard-size (BCI) ABS container for easy VRLA replacement
- Fast charge/discharge performance
- Maintenance-free operation

Battery Management System (BMS)

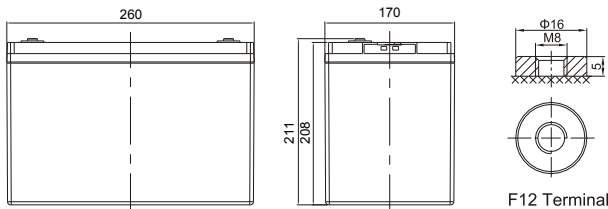
- Integrated hardware BMS inside
- Independent charge & discharge protection
- Short-Circuit Protection, Over-Voltage Protection, Low-Voltage Protection, Over-Current Protection, Low-Temperature Protection, Over-Temperature Protection

R12-100LFP

LiFePO₄ BATTERY



Rolls high performance LiFePO₄ batteries offer exceptional cycle life and are up to 50% lighter than equivalent lead-acid models.



SPECIFICATIONS

R12-100LFP

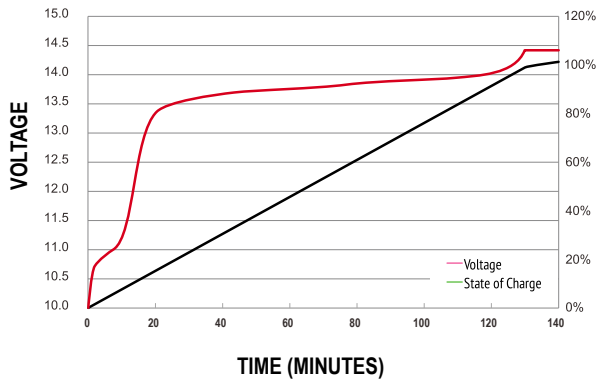
PRODUCT DIMENSIONS: (LxWxH incl terminal)	260mm (10.24") x 170mm (6.69") x 211mm (8.3")
PRODUCT WEIGHT:	11.5 Kg / 25.4 Lbs
NOMINAL VOLTAGE: (V)	12.8V
NOMINAL CAPACITY: (AH)	100 AH
TOTAL ENERGY: (KWh)	1.28 KWh
RECOMMENDED END OF DISCHARGE VOLTAGE: (V)	12.0V
END OF DISCHARGE PROTECTION VOLTAGE: (V)	10.0V
INTERNAL BMS MODEL:	4S100A
TERMINAL:	F12 (M8)
CYCLE LIFE:	>6000 @ 80% DOD, >3000 @ 100% DOD
SERIES CONNECTION:	4 UNITS MAX
PARALLEL CONNECTION:	4 UNITS MAX

CHARGING

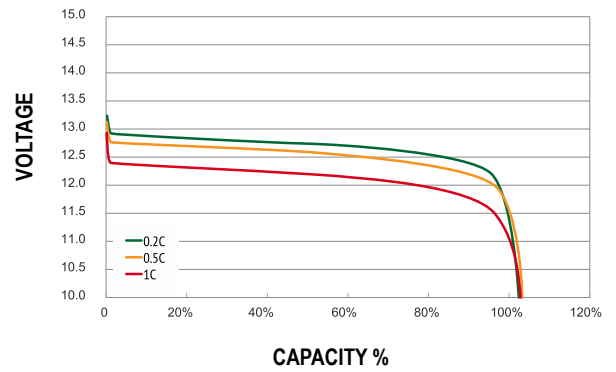
CHARGE VOLTAGE RANGE: (V)	14.0 - 14.6V	*DO NOT USE TEMPERATURE COMPENSATION (BTS)
RECOMMENDED CHARGE VOLTAGE: (V)	14.4V	
RECOMMENDED CHARGE CURRENT: (AMPS)		
0~5°C (32~41°F)	≤0.1C	10 A
5~10°C (41~50°F)	≤0.2C	20 A
10~35°C (50~95°F)	≤0.5C	50 A
35~50°C (95~122°F)	≤0.2C	20 A
CHARGE MODE:	CHARGE AT RECOMMENDED VOLTAGE & CURRENT BY TEMPERATURE UNTIL CHARGE CURRENT DROPS TO ≤ 0.05C (CC,CV)	
MAX CONTINUOUS CHARGE CURRENT: (AMPS)	50 A	
MAX CONTINUOUS DISCHARGE CURRENT: (AMPS)	100 A	
SURGE CURRENT LIMIT: (AMPS)	700 A (300ms)	
CHARGE TEMPERATURE RANGE:	0°C~55°C (32~131°F)	
DISCHARGE TEMPERATURE RANGE:	-20°~60°C (-4~140°F)	
STORAGE TEMPERATURE RANGE:	-5°~45°C (23~113°F)	

R12-100LFP LiFePO₄ BATTERY

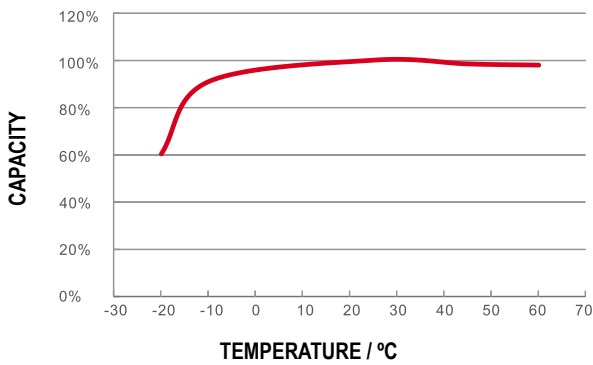
CHARGING CHARACTERISTICS - (0.5C @ 25°C)



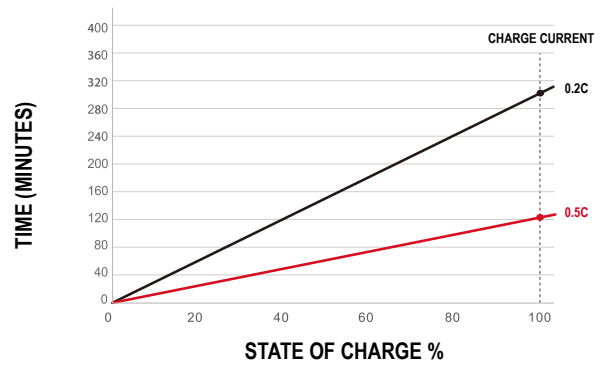
DISCHARGE CHARACTERISTICS (@ 25°C)



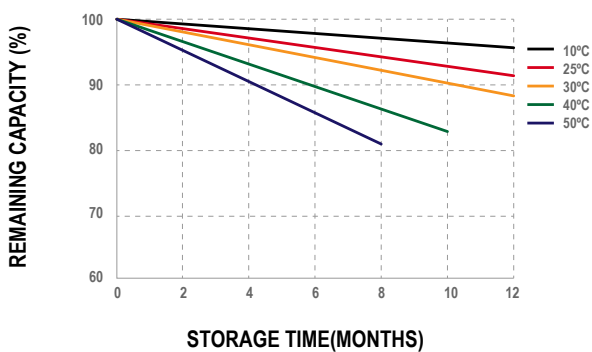
TEMPERATURE VS CAPACITY



CHARGE TIME 0.2C / 0.5C @ 25°C



SELF-DISCHARGE BY TEMPERATURE



CYCLE LIFE VS DEPTH OF DISCHARGE @ 25°C

