

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)

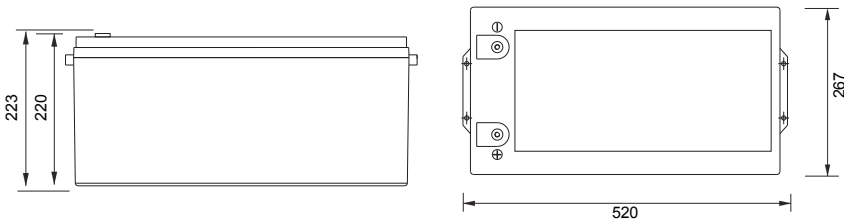
- Integrated hardware BMS inside
- Independent charge & discharge protection
- Short-Circuit Protection, Over-Voltage Protection, Low-Voltage Protection, Over-Current Protection, Low-Temperature Protection, Over-Temperature Protection

R12-300LFP

LiFePO₄ BATTERY



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



SPECIFICATIONS

R12-300LFP

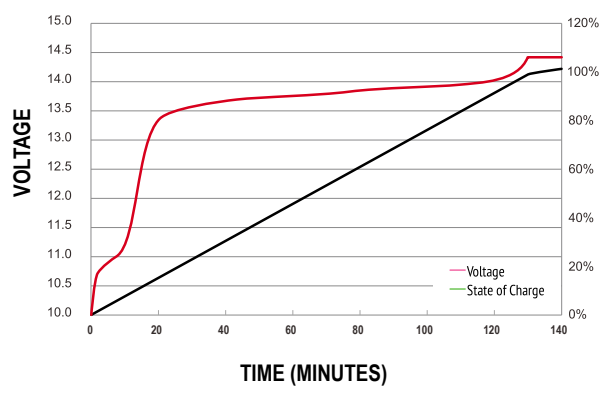
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|---|--|--|
| PRODUCT DIMENSIONS: (LxWxH incl terminal) | 521mm (20.5") x 267mm (10.51") x 223mm (8.78") | |
| PRODUCT WEIGHT: | 33 Kg / 72.8 Lbs | |
| NOMINAL VOLTAGE: (V) | 12.8V | |
| NOMINAL CAPACITY: (AH) | 300 AH | |
| TOTAL ENERGY: (KWh) | 3.84 KWh | |
| RECOMMENDED END OF DISCHARGE VOLTAGE: (V) | 12.0V | |
| END OF DISCHARGE PROTECTION VOLTAGE: (V) | 10.0V | |
| INTERNAL BMS MODEL: | 4S200A | |
| TERMINAL: | F12 (M8) | |
| CYCLE LIFE: | >6000 @ 80% DOD, >3000 @ 100% DOD | |
| SERIES CONNECTION: | 4 UNITS MAX | |
| PARALLEL CONNECTION: | 4 UNITS MAX | |

CHARGING

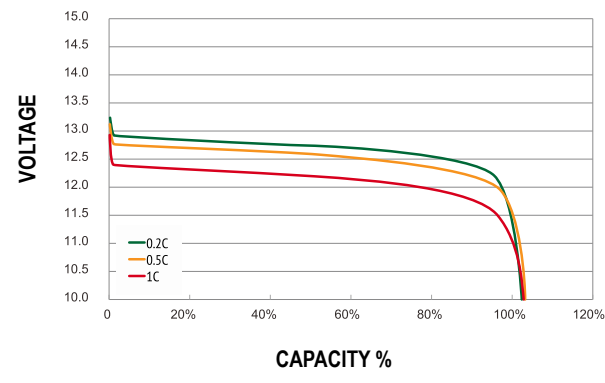
| | | |
|--|--|--|
| CHARGE VOLTAGE RANGE: (V) | 14.0 - 14.6V | *DO NOT USE TEMPERATURE COMPENSATION (BTS) |
| RECOMMENDED CHARGE VOLTAGE: (V) | 14.4V | |
| RECOMMENDED CHARGE CURRENT: (AMPS) | | |
| 0~5°C (32~41°F) | ≤0.1C | 30 A |
| 5~10°C (41~50°F) | ≤0.2C | 60 A |
| 10~35°C (50~95°F) | ≤0.5C | 150 A |
| 35~50°C (95~122°F) | ≤0.2C | 60 A |
| CHARGE MODE: | CHARGE AT RECOMMENDED VOLTAGE & CURRENT BY TEMPERATURE UNTIL CHARGE CURRENT DROPS TO ≤ 0.05C (CC,CV) | |
| MAX CONTINUOUS CHARGE CURRENT: (AMPS) | 150 A | |
| MAX CONTINUOUS DISCHARGE CURRENT: (AMPS) | 200 A | |
| SURGE CURRENT LIMIT: (AMPS) | 800 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) | |

R12-300LFP LiFePO₄ BATTERY

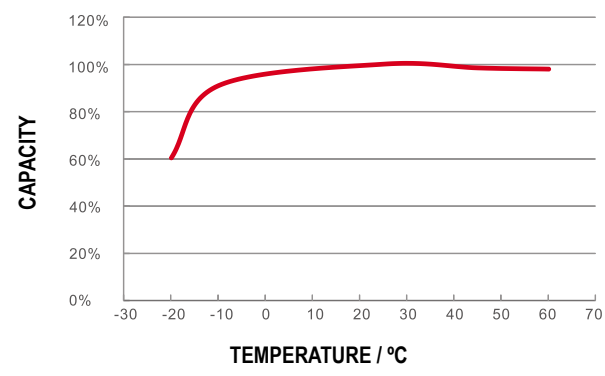
CHARGING CHARACTERISTICS - (0.5C @ 25°C)



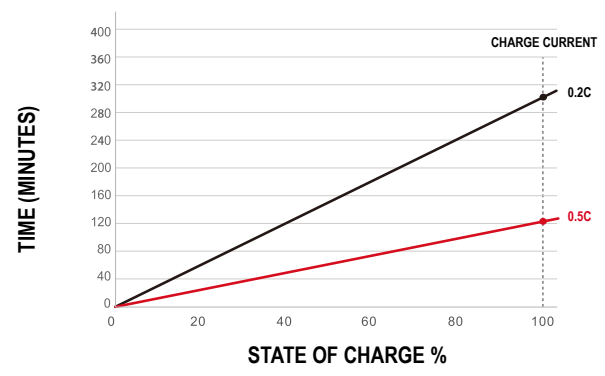
DISCHARGE CHARACTERISTICS (@ 25°C)



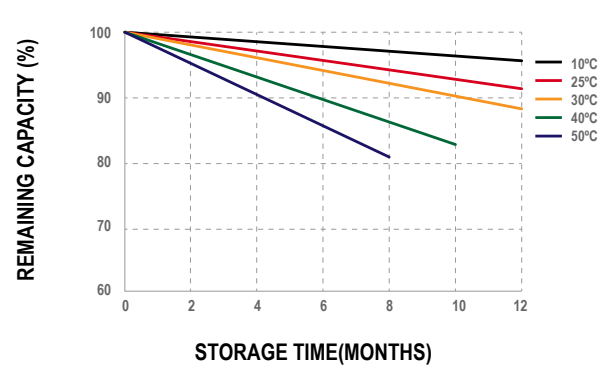
TEMPERATURE VS CAPACITY



CHARGE TIME 0.2C / 0.5C @ 25°C



SELF-DISCHARGE BY TEMPERATURE



CYCLE LIFE VS DEPTH OF DISCHARGE @ 25°C

