# Lithium Iron Phosphate Battery

# Type: HP-PW-100AH

## Power Type / 3.2V 100AH


The PW (power type) series batteries, featured as high continuous & peak power, battery of this type focus on best power supply ability.

LiFePO4 battery production in 2004. Batteries are widely used in electric vehicles, energy storage, marine, industry, telecommunications, electric tools, etc. For LiFePO4 molecular structure is reliable and has a high degree of electrical conductance. Hipower LiFePO4 batteries offer high continuous / peak power even when nearing the end of the depth of discharge, batteries also will accept large charging current such as regeneration when the EV's are braking or reducing speed. Those features give electric vehicles above average performance when starting or accelerating or climbing.

| Charge data @ 23℃ / 77℉ | |
|---|---|
| Charge voltage: | 3.65 V |
| Cut-off charge voltage: | 3.85 V |
| Charge mode: | CC / CV (3.65V) |
| Standard charge current: | 33.3 (C/3) A |
| Max. cont current in CC state : | ≤ 100 (1C) A |
| (constant current) | @0~90% SOC |
| Peak charge current: | ≤ 200A (2C) @15sec |
| | @0~80% SOC |
| Balance time in CV state : | 1~2 hours |
| (constant voltage) | |
| Floating charge voltage: | 3.40 V |

| Discharge data @ 23℃ / 77℉ | |
|---|---|
| Discharge voltage: | 3.2V @ C/2 discharge |
| Cut-off dischage voltage: | 2.50 V |
| Standard discharge current: | 33.3 (C/3) A |
| Max. cont current: | 300 (3C) A |
| Peak dischage current: | |
| Peak current for 5 sec: | ≤ 800 (8C) A |
| Peak current for 15 sec: | ≤ 500 (5C) A |
| Peak current for 60 sec: | ≤ 500 (5C) A |
| Self-discharge rate: | 3 % (Monthly) |

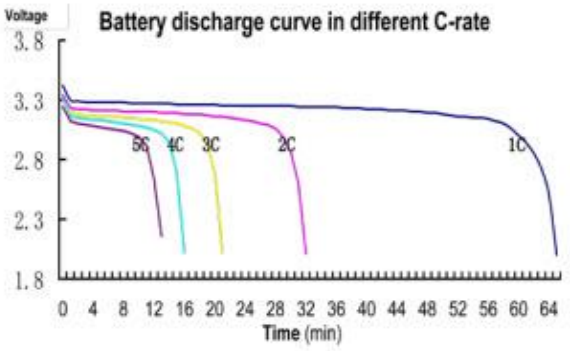
| Appearance | |
|---|---|
| Dimensions (L*W*H): | 163 x 51 x 278 mm |
| include **terminals** & **bus-bar** | 6.42" x 2.00" x 10.9" inch |
| Weight: (Kg / lbs) | 3.4 kg / 7.50 lbs |
| Terminals on poles : | M8 Bolts |
| Poles Distance: (mm) | 90 mm |

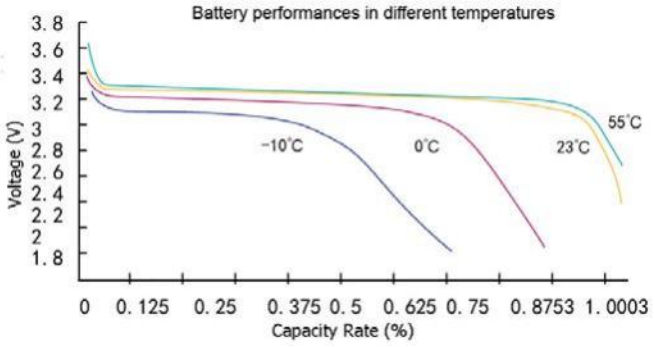
| Capacity, Energy density & Cycle life | |
|---|---|
| Nominal Capacity | 100 AH @ C/3 discharge |
| @ 23℃ / 77 ℉ | |
| Available Capacity | ≥98% @ 1C discharge |
| @ 23℃ / 77 ℉ | ≥95% @ 2C discharge |
| | ≥90% @ 3C discharge |
| Energy density: | 138.4 Wh / l |
| ( C/3, 23℃ / 77 ℉) | |
| Specific energy: | 94.1 Wh / kg |
| ( C/3, 23℃ / 77 ℉) | 471 W / kg @ 15 sec |
| Specific power: | 282 W / kg (continuous) |
| (23℃ / 77 ℉) | ≤ 1 mΩ |
| Inner resistance: | 2000 times @ 80% DOD |
| Cycle Life: | 1000 times @100% DOD |
| (23℃ / 77 ℉) | |

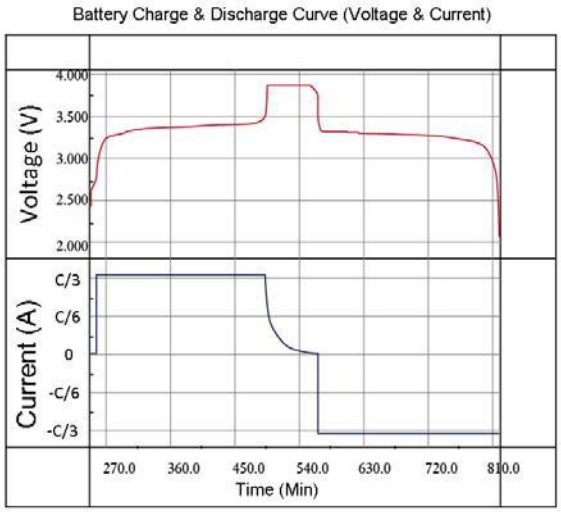
| Termperature & Humidity | | |
|---|---|---|
| Working Temperature | Charging | 0~45℃ / 32~113℉ |
| | Discharging | -20~60℃ / -4~140℉ |
| Storage Temperature | 1 month | -20~60℃ / -4~140℉ |
| | 3 months | -20~45℃ / -4~113℉ |
| | 6 months | -20~25℃ / -4~ 77 ℉ |
| Water / dust resistance | | IP67 |
| Atmospheric pressure | | 86~106 KPa |
| Operation Humidity | | 25~85%, non-condensing |

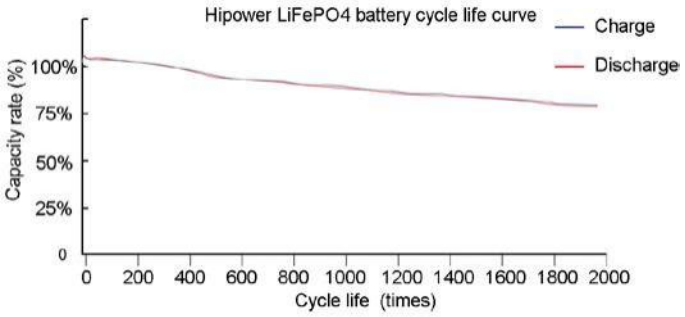
# Common advantages

1. Long cycle life. No memory effect.
2. High C-Rate discharge / charge capability.
3. High peak power available under high DOD.
4. High energy density, small size, light weight.
5. Good performance at high & low temperatures.
6. Environmentally friendly.
7. Intrinsically safe.


Remarks:

1. C-rate can be used to discribe current, "C" means capacity rating (Amp-hour), easy for calculating. For example, 50AH cell, 3C means 3*50= 150A, C/5 means 1/5*50=10A, also can be called 0.2C.
2. Test is accord with QC/T743-2006.

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