

APS-Lithium 12VDC Battery

Lead Acid Frame Type

5AH ~ 300AH Capacity



ABOUT PRODUCT

APS- Lithium 12VDC Batteries offer safe lithium phosphate energy storage solutions in standard lead-acid battery capacity rating (AH), as well as the actual frame size of a typical lead-acid battery. The APS-Lithium12VDC battery range is suitable for a wide variety of applications, including but not limited to UPS's, Solar storage, Telco applications etc..... These lithium-ion batteries are designed as a direct drop-in replacement for lead-acid batteries offering twice the run-time and less than half the weight.

PRODUCT PERFORMANCE

APS Lithium Ion Phosphate Batteries (also known as Lithium Iron Phosphate Batteries) are an extremely light weight battery designed for deep-cycle (cyclic) applications and are a completely dry, battery making them spill-proof and leak- proof. They can sit for long periods without losing charge and can also be charged extremely quickly without damaging the battery.

FUNCTION OF PCM/BMS

APS- Lithium-ion cylindrical cells are optimized through the use of its battery PCM/BMS by monitoring cells to provide protection against overcharge, over discharge and short circuit. This methodology enables every battery pack to obtain an independent balancing effect. Overall, the BMS helps to ensure safe and accurate operation.

KEY FEATURES

- High Cycle Capacity (100% DOD= 3000 cycles) (30% DOD= 8000 cycles)
- Extended safety performance
- Wide operating temperature range
- Unrivalled high temperature performance
- Green Energy: No toxic materials contained
- High capacity output
- Steady output voltage
- Low self-discharge
- Double safety protection
- High level vibrations and shock capability

SAFETY CHARACTERISTICS

- Over-charge/Over-discharge protection
- Short-circuit protection
- Puncture withstand capability to withstand
- Thermal-shock capability

NB: The above protection is in place to mitigate any risk in fire, explosion potential

200AH 12VDC



30AH 12VDC



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TECHNICAL SPECIFICATIONS

Electrical Characteristics	
Nominal voltage	12V
Nominal Capacity (@25deg)	5Ah~300Ah
DC Internal Resistance	≤40mΩ~≤50mΩ
Expected Cycle Life	More than 4000 cycles with 1C charge and discharge rate at 25deg
Operation Conditions	
Charge Method	CC-CV
Max. Charge Voltage	14.6V
Continous Charge Current	5A~100A max.
Charge Temperature	0deg~45deg
Continous Discharge Current	5A~100A max.
Peak Instant Discharge Current (10 secs)	10A~200A
Discharge Cut off voltage	10.0V
Discharge Temperature	-20deg~65deg
Storage Temperature	-20deg~65deg
Self Discharge (Stored at 50% SOC)	≤3% per month

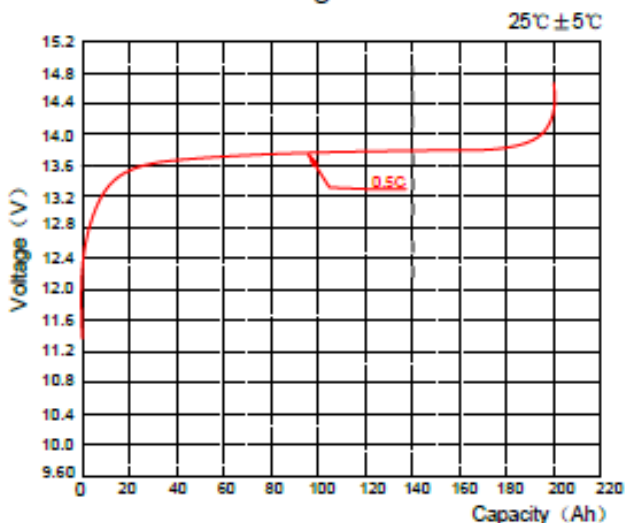
30AH 12VDC



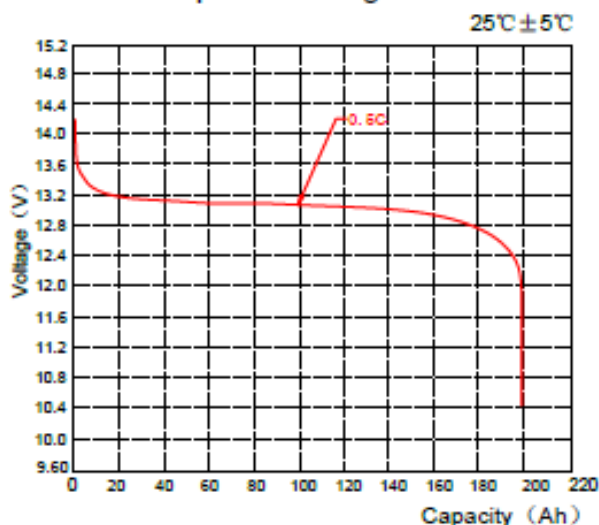
200AH 12VDC



charge curve



Diploid discharge curve



Charge and discharge curve example for 200AH 12VDC APS- Nano Lithium-ion battery



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