BA50-8

Securi-Prod Lithium-Ion NMC Battery 12V 20Ah



The **BA50-8** Securi-Prod Lithium-Ion NMC Battery 12V 20Ah is designed for industrial and residential 12V DC applications, including electric gate motors, CCTV cameras, alarm systems, etc. Featuring advanced NMC cell technology and an integrated low-power BMS, it delivers high energy density, stable voltage, reliable performance, long cycle life, and enhanced safety, making it an ideal replacement for lead-acid batteries.

Benefits

- High energy density.
- Long Cycle Life.
- Integrated Advanced BMS
- High operational reliability.
- Fast and Efficient Charging.
- Wide Operating Temperature.
- Lightweight & Robust.
- Eco-Friendly.
- Maintenance-Free.

Specification	
Model	BA50-8
Nominal Voltage	10.8 V
Operating Voltage Range	7.5V - 12.6 V
Nominal Capacity @ 25 ˚C	20.0 Ah
Nominal Energy @ 25 ˚C	216 Wh
Cycle life @ 25 ˚C (0.33C)	up to 6000 cycles (80 % DOD)
Discharge	
Max Continuous Discharge Current (C-rate)	20.0A (1C)
Peak Discharge Current 10s (C-rate)	40.0A (2C)
End of Discharge Voltage	7.5V
Charge	
Charge Method	Constant Current , Constant Voltage (CC/CV)
Charge Voltage	12.6 V - 13.6V
Recommended charge current (c-rate)	6.6A (0.33C)
Operating Conditions	
Discharge Operating temperature	-20 ˚C to + 60 ˚C
Charge Operating temperature	+10 ˚C to +60 ˚C
Storage temperature	-20 ˚C to 60 ˚C
Humidity	Max ≤ 95%
Protection (BMS)	
Over-Voltage Cut-off	12.75 V
Short Circuit protection	Yes (internal BMS)
Other	
Dimensions(L×*W*×*H*)mm	150×101×66
Weight (est.)g	1025
Self-discharge rate	≤ 3 % per month @ 25 ˚C

Safety & Handling

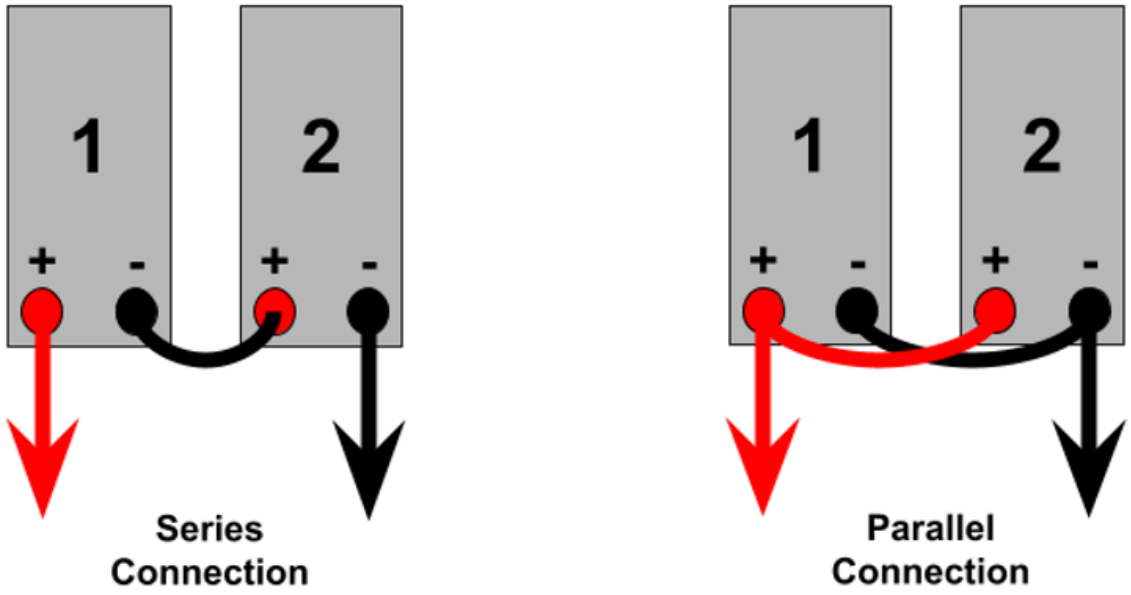
- Use only a compatible lithium-ion charger (CC/CV type).
- Do not short-circuit, crush, puncture, or expose the battery to fire or high temperatures.
- Avoid overcharging or deep discharging beyond rated limits.
- Store in a cool, dry location between 10°C and 30°C.
- Dispose of responsibly in accordance with local regulations.

End-of-Life & Recycling

- At the end of its service life, this lithium-ion battery must be disposed of in accordance with applicable environmental regulations.
- Customers may return the battery to Advanced Battery Technologies or an authorized collection point for safe end-of-life handling and recycling.
- All transportation and handling costs associated with end-of-life returns are the Responsibility of the Customer.

Series & Parallel Connection:

Connection Example:



A maximum number of batteries connected:

- In Series: 4
- In Parallel: 8

Note:

- To increase voltage, the series connection method is used.
  For example: 12V + 12V = 24V. When connected in series the capacity remains the same.
- To increase capacity, a parallel connection method is used.
  For example: 20Ah + 20Ah= 40Ah. When connected in parallel the voltage remains the same.
- Series & Parallel combinations are **NOT Recommended.**

Cautions:

- ⚠ **Do not submerge the battery in water.**
- ⚠ **Do not expose the battery to an open flame or extreme temperatures**.
- ⚠ **Do not crush or disassemble.**
- ⚠ **Avoid short circuits.**
- ⚠ **Store at 50% capacity, recharge every 3 months if not in use.**

