



POWER SOLID

The Crown of Power Solution

Lithium Battery

PS-LiB481000#N

48V, 100Ah

General Features

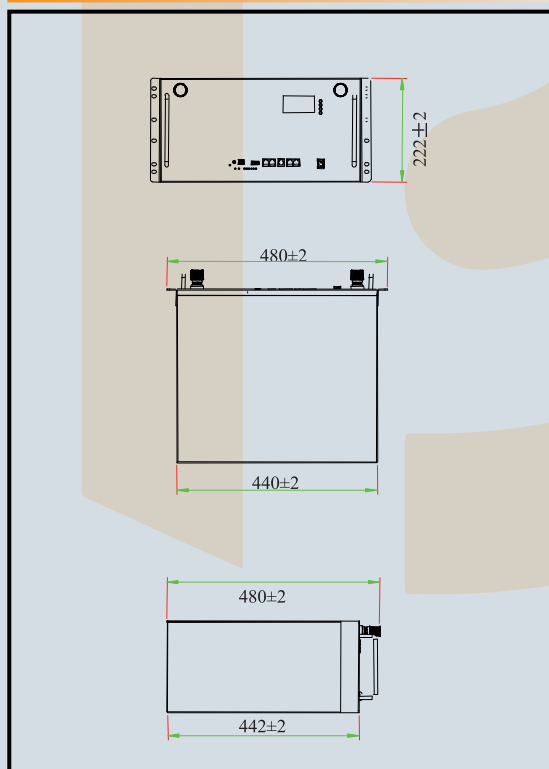
- **Longer Cycle Life:** Offers up to 15 times longer cycle life and 5 times longer float/calendar life than a lead-acid battery.
- **lighter Weight:** About 40% weight of a comparable lead-acid battery, save up to 60% in weight.
- **Quick Charge:** Short charge time compared with a lead-acid battery.
- **Low Self-Discharge:** Lower self-discharge compared with a lead-acid battery, longer storage time without recharging.
- **Superior Safety:** Multi-protection methods built inside to protect the battery from overcharge, over-discharge and short circuit situations.
- **High Efficient:** Higher round-trip energy efficiency of the average (92%) than lead-acid battery 80% (discharge from 100% to 0% and back to 100% charged).
- **Max. Parallel applicability:** 15 pieces



Specifications

Nominal voltage		48V
Nominal capacity		100Ah
Dimensions	Length	442±2mm (17.40inch)
	Width	480±2mm (18.89inch)
	Height	222±2mm (8.74inch)
	Total height	222±2mm (8.74inch)
Approx. weight		41kg (90.39lbs)±2.5kg

Outer Dimensions(mm)



Characteristics

Electrical Parameters (25°C)	Rated Voltage	51.2V
	Rated Capacity (C ₅)	100Ah@25°C
	Energy	5120Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M10
Internal resistance (Fully charged, 25°C)		≤150mΩ
Cycle life		>3000 cycles @ 0.2C 100%D.O.D
Capacity affected by temperature	40°C	101%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature		25°C± 3°C (77°F± 5°F)
Operating temperature range	Discharge	- 20°C~ 60°C (-4°F ~ 140°F)
	Charge	0°C~ 45°C (32°F ~ 113°F)
	Storage	0°C~ 40°C (32°F ~ 104°F)
Self heat function		Available
Water Dust Resistance		IP65
Charge Voltage		58.4V
Standard Charge Mode (25°C±2°C, <75%RH)		0.2CA Constant Current to 58.4V, then Constant Voltage 58.4V until the current drops to 0.02CA, before use, rest 30 minutes
Charge Current		20A
Maximum Charge Current		50A
Charge Cut off Voltage		58.4V
Continuous Discharge Current		100A
Maximum Pulse Current		300A (<10ms)
Discharge Cut Off Voltage		46V
Communicate Protocol (optional)		RS485/RS232/CAN
SOC (optional)		Screen/LED/PC Software
Application connection		1 string 1 parallel
Mechanical	Cells	16 Strings
	Container	Metal

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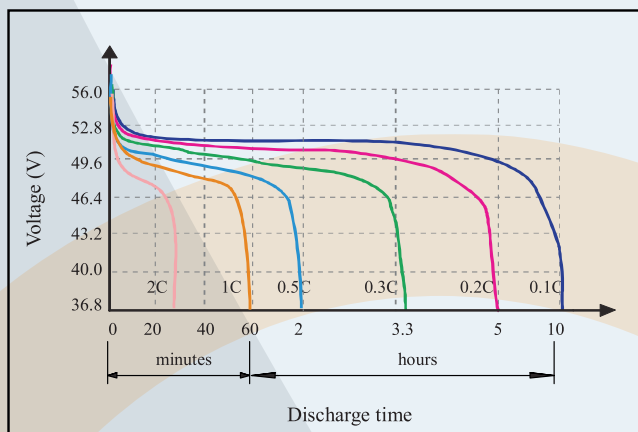
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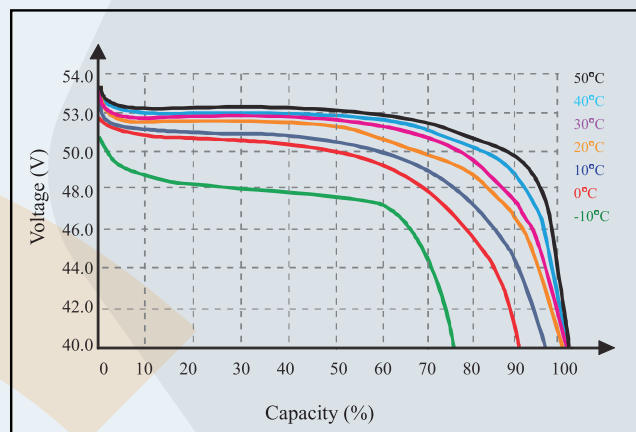
48V, 100Ah

Discharge Data

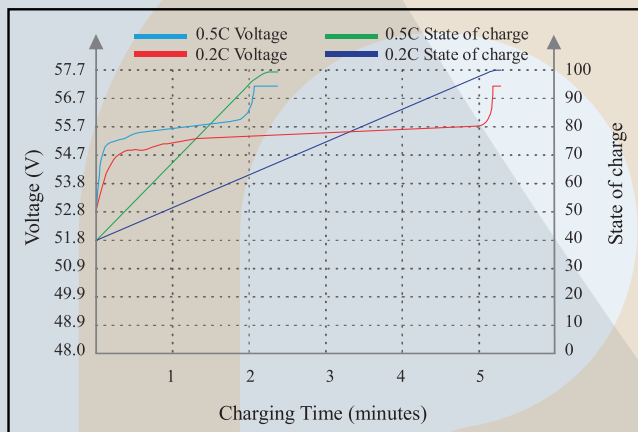
Discharge characteristics (25°C)



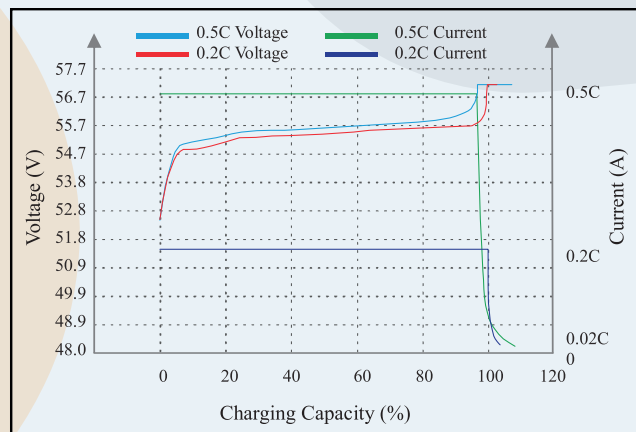
Temperature affect on discharge characteristics (0.5C)



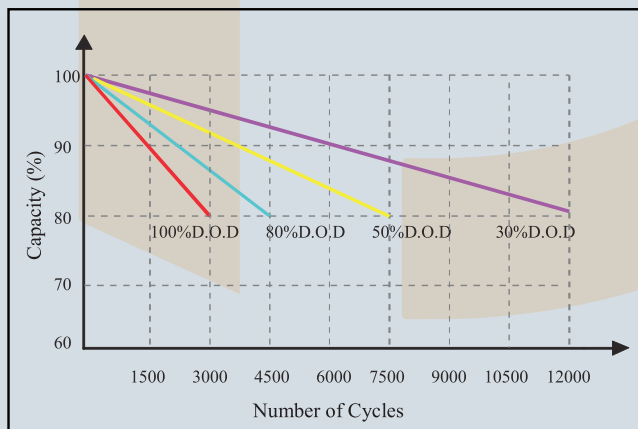
State of Charge Curve (25°C)



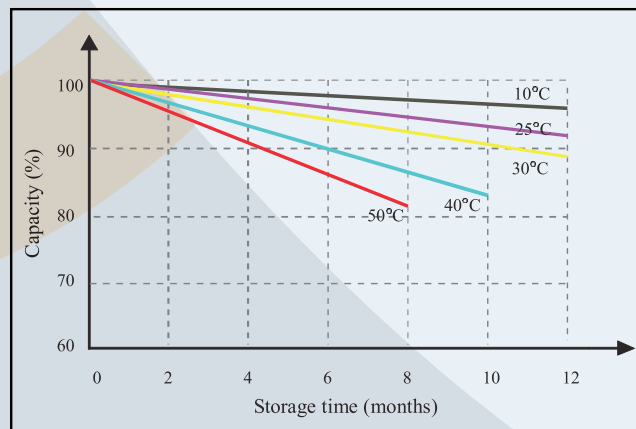
Charge characteristics (25°C)



Cycle life on D.O.D (25°C)



Self Discharge Characteristics Curve



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