



ML280-25.6 S

Lithium LiFePO4 Battery

Lead Acid Replacement Series



LITHIUM LiFePO4 Battery

ELECTRICAL PERFORMANCE

Rated voltage	25.6V, 8 string
Battery voltage range	20-29.2V
Rated capacity	300Ah
Total energy	7.68KWH
Cycles	within 8000 cycles@ 0.5C charge and discharge, 80%DOD, Temp.25 ±2°C
Charge-discharge capacity efficiency	≥96%
Cells	EVE A Grade , LiFePO4 Cell 280Ah (310Ah)
Standard charging current (A)	0.2C ~ 0.5C (60A~140 A)
Standard discharge current (A)	0.2C ~ 0.5C (60A~140 A)
Maximum continuous charging and discharging current (A)	150A

MECHANICAL PERFORMANCE

Gross weight	65KG
Shell material	Steel
Product size (mm)	403*240*479±2mm (L*W*H)
Input-output mode	OT-terminal
Enclosure Protection	IP 21
Composition mode of battery pack	8 series and 1 parallel, a total of 1 battery pack.

TEMPERATURE PERFORMANCE

Battery system charging and discharging ambient temperature	Charge at 0~45 °C and Discharge at -20°C~ 60 °C
Environmental relative humidity	10%-85%

BMS PERFORMANCE

Charging protection	Recommended Charge Voltage	29.2 V
	Overcharge protection voltage	3.65 V ±50 (mv)
	Overcharge protection delay	2000 ± 1000 (ms)
	Overcharge protection recovery voltage	3.50 V ±50 (mv)
	Charging overcurrent delay	30±5S)
Balanced	Balanced turn-on voltage	3.3 V
	Balanced current	100A

BMS PERFORMANCE

Discharge protection	Overdischarge protection voltage	2.5 ± 0.1 V
	Overdischarge protection delay	2000 ±1000 (ms)
	Overdischarge protection recovery voltage	2.7 ±(0.1) V
	Delay of discharge overcurrent protection	7±(3)S
	Short circuit protection delay	350 ±150(US)
Max Batteries Connection	Maximum Batteries in Series	2
	Maximum Batteries in Parallel	2

	Voltage (V)	Capacity (AH)	Energy (KWH)	DOD (depth of discharge)	Usable Energy (KWH)	Equivalent
ML280-25.6 S	25.6	300	7.7	90%	6.9	"(25.6V 300Ah) Lithium Battery Equivalent to TWO connected in Series (12V420Ah) Lead Acid Battery "
420Ah LA battery	24	420	10.1	70%	6.9	



INSTRUCTIONS

1. • Use a lithium charger (60A recommended, 150A max) to preserve capacity and warranty.
2. • It is not recommended to use a lead acid battery charger as it will reduce the warranty to 18 months.
3. • You can only connect 2 batteries max in series and 2 in parallel. Series connection reduces warranty to 18 months.
4. • The product is non-disassembling, with no unauthorized dismantling and maintenance only by Marvel Technical team.
5. • Using a Lithium battery provides 30~40% more effective capacity than its Lead-Acid Equivalent.