POWERTEK

PW100-48 [51.2V100Ah]

LiFePO4 Powerwall Battery PW100-48

ELECTRICAL PERFORMANCE

NominalVoltage	51.2 V
NominalCapacity	100Ah
Capacity@20A	600min
Energy	51200 Wh
Communication	CAN2.0/RS232/RS485
Resistance	≤45mΩ@5 0% SOC
Efficiency	＞96%
Module Parallel	Upto3p acks

CHARGE PERFORMANCE

RecommendedChargeCurrent	20A
MaximumChargeCurrent	100A
RecommendedChargeVoltage	57.6V
BMSChargeCut-OffVoltage	<58.4V (3.65V/Cell)
ReconnectVoltage	>57.6V (3.6V/Cell)
BalancingVoltage	<57.6V (3.6V/Cell)
Maximum BatteriesinSeries	16

MECHANICAL PERFORMANCE

Dimension(LxWxH)	600 X 400 X 213
Approx.Weight	49KG
Terminal Type	DIN POST
Terminal Torque	80~100 in-lbs(9~11N-m)
CaseMa terial	SPPC
Enclosure Protection	IP65

DISCHARGE PERFORMANCE

MaximumCo ntinuousDischargeCurrent	100A
Peak DischargeCurrent	110A (3s)
BMSD ischargeCut-OffCurrent	150A (300ms)
Balancing openvoltage	55.2V(3 .45V/Cell)
RecommendedLowVoltageDisconnect	44V (2.75V/Cell)
BMSD ischargeCut-OffVoltage	>32.0V(2s) (2.0V/Cell)
ReconnectVoltage	>40.0V(2.5V /Cell)
ShortCircuitProtection	250~500μs

TEMPERATURE PERFORMANCE

DischargeTemper ature	-4~ 131 °F(-20~55 °C)
ChargeTempe rature	-4~1 13 °F(0~45 °C)
StorageTemperature	23 ~95 °F(-5~35 °C)
BMSHighTemperatureCut-Off	149 °F(65 °C)
ReconnectTemperature	131 °F(55 °C)

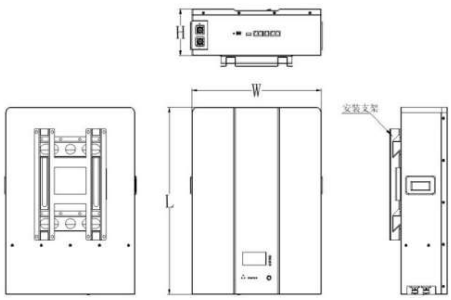
COMPLIANCE

Certifications	CE(battery) UN38.3(battery) UL1642&IEC62133 (cells)
Shipping clasification	UN3480,C LASS9

HEATINGFOIL PERFORMANCE

Heating TemperatureRange	-4to41 °F (-20to5 °C)
HeatingTime	Approximately1hour@7.5A
BMSHeatingFoilCut-Off	158 °F(70 °C)

OUTLINE DIMENSION



L mm	W mm	H mm
600	400	213

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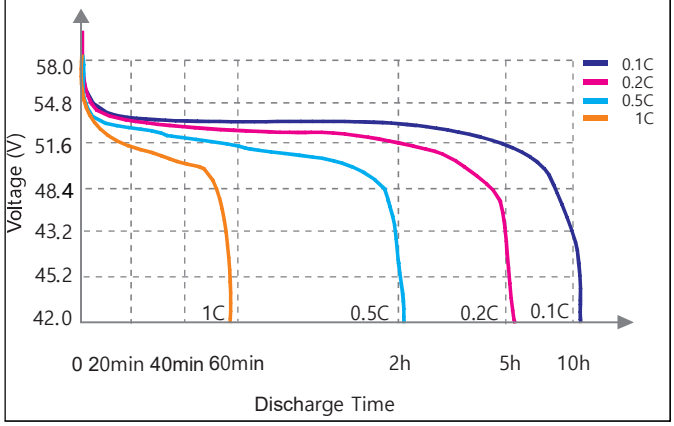
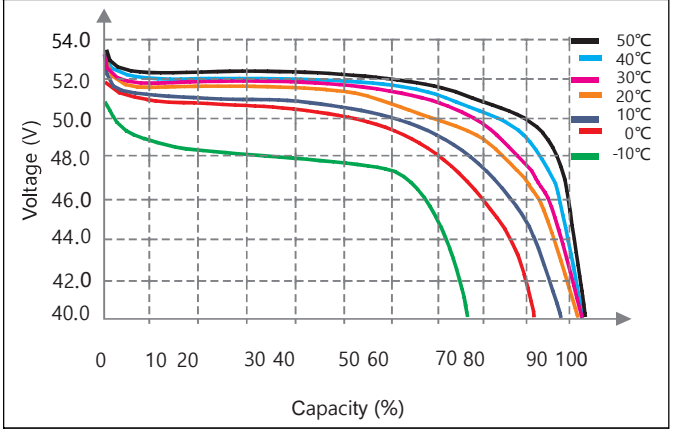
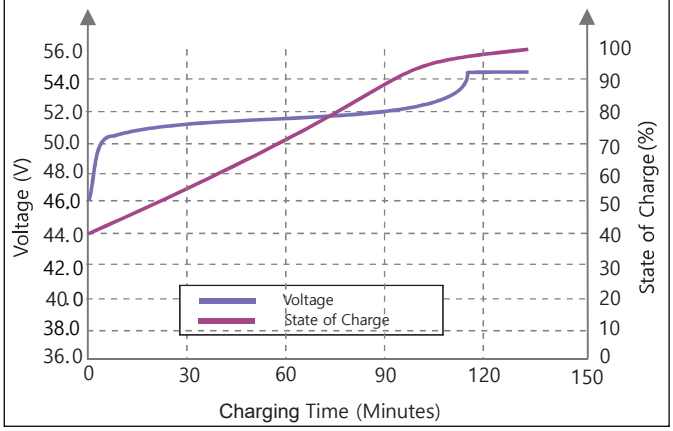
Different Rate Discharge Curve(25 ℃)



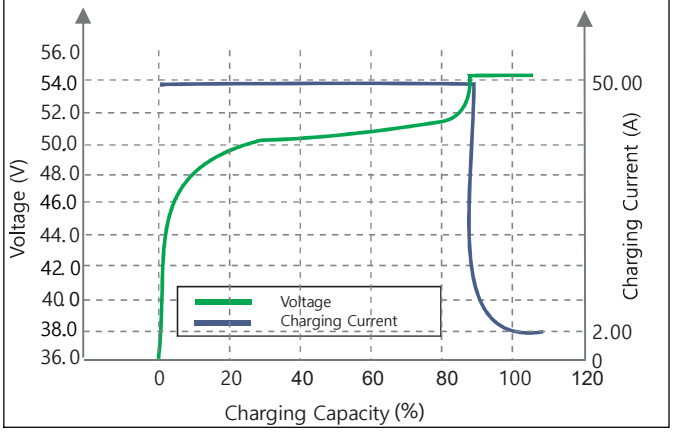
Different Temperature Discharge Curve (1C, 25℃)



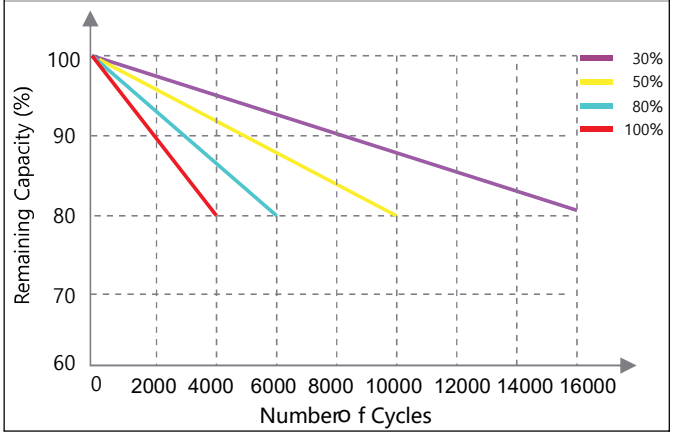
State of Charge Curve (0.2C, 25℃)



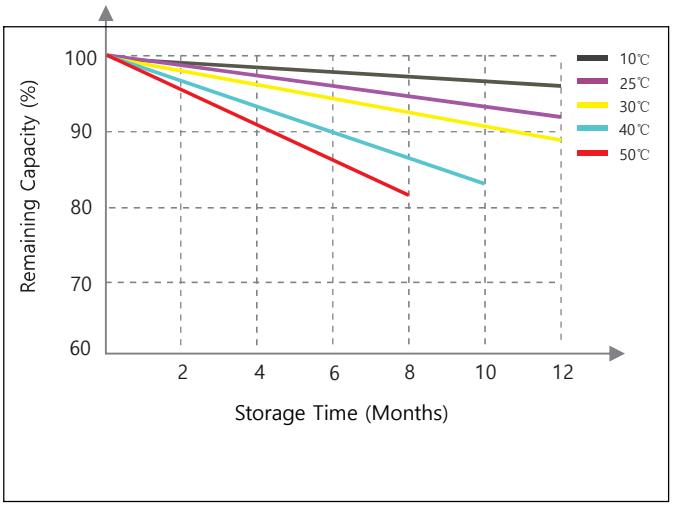
Charging Characteristics (0.5C, 25℃)



Cycle Life vs DOD (D/C @ 0.5C , 25°C)



Different Temperature Self Discharge Curve



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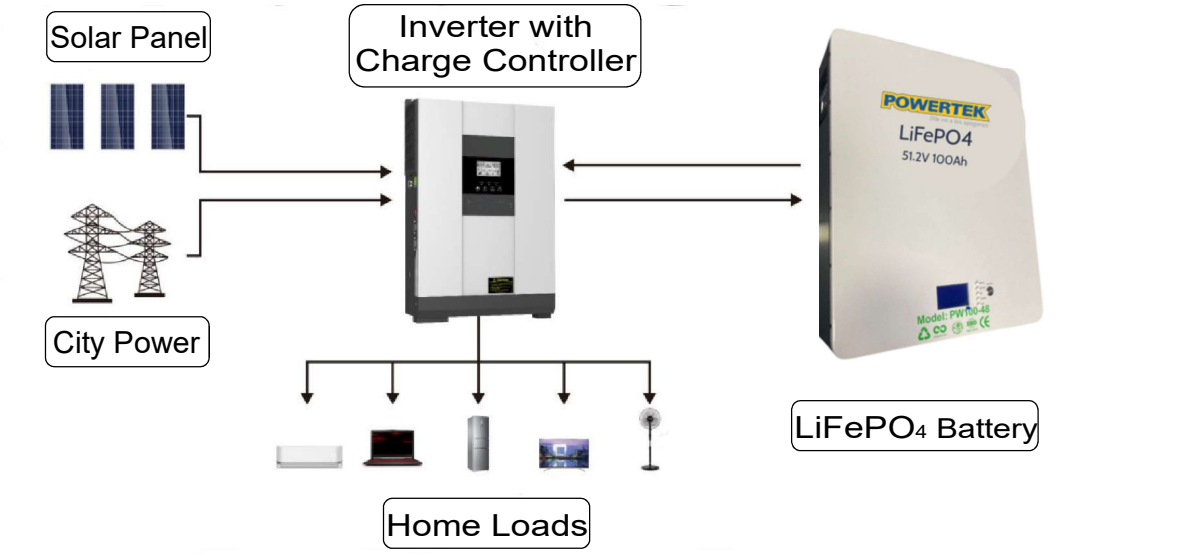
SYSTEM DIAGRAM



FEATURES& BENEFITS

High cyclelife
6000cycles@80%DoDforef fectively lowertotal of ownershipcost

Longer service life
Maintenance-free batterieswithstablechemistry.

Builtincircuit protection
BatteryManagementSystem(BMS)is incorporated against abuse.

Better storage
Upto6months owing toits extremely lowself discharge(LSD)rateandnoriskofsulphation.

Quickly recharge
Savetimeandincrease productivitywithlessdown time owing tosuperior charge/dischargeefficiency.

Extremeheat tolerance
Suitableforuseinawiderrangeof applicationswhere ambient temperature isunusuallyhigh:upto+60°C.

Light weight
A lithium battery can provide more Wh/Kg and it is just 1/3 of its equivalent VRLA-AGM battery in weight.

APPLICATIONS

Lithium IronPhosphate batteries can beusedinmostapplications and they can replace Lead- Acid,GELo r AGM batteries. Suitablea pplications include:

- Solar Storage
- Switching applicationsandmore
- Basetr ansceiver station
- Communication equipments
- Central office
- Telecommunicationsystems
- Electroniccashregisters
- Microprocessorbasedofficemachine
- UPS

CAUTIONS

- DoNOTshortcircuit,reversepolarity,crushor disassemble.
- DoNOTheatorincin erate.
- DoNOT immerseinanyliquid.
- Storeat30~50%SOC. Rechargingevery3monthsis recommended.T It shouldbe stored in a clean,cool, dryand well-ventilated place.

Notes: Performance may vary depending on applications. All specifications are subject to change without prior notice to users. This data is only for reference. No guarantee is intended or implied by the data sheet. For clarification and updated information, please contact us.

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