

Lithium Iron Phosphate (LiFePO₄) Battery

TW-LFP48.0V300AH TW-LFP51.2V300AH

Features

- ◆ Lithium iron phosphate battery cell technology is used for higher safety. 80% DOD charging and discharging under standard conditions, more than 6000 cycles
- ◆ High integrated analog front-end, isolated power circuit
- ◆ Integrated serial port IC, high voltage accuracy ($\leq 20\text{mV}$), high current accuracy ($\leq 2\%$ @ FS)
- ◆ 4-circuit battery temperature detection ($\leq 2\text{ }^\circ\text{C}$), SOC estimation function, SOH estimation function
- ◆ Short circuit protection function, adjustable overcurrent protection, multiple sleep and wake-up modes, low power consumption
- ◆ Dual RS485 communication, adjustable parameter setting, buzzer alarm function, LED status indication function, charging equalization function
- ◆ Wide temperature range: $-20\text{ }^\circ\text{C}\sim 60\text{ }^\circ\text{C}$
- ◆ Support parallel (up to 15 Sets) application expansion, not recommended for series use

Application

- ◆ Standby power supply, Home energy storage, Outdoors power station
- ◆ Solar and wind power generation system



Lithium Iron Phosphate (LiFePO4) Battery

TW-LFP48.0V300AH TW-LFP51.2V300AH

General Specifications

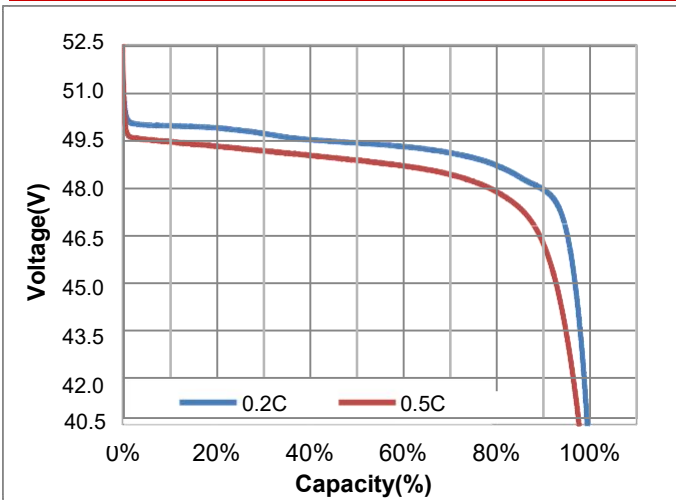
Electrical Characteristics	Nominal Voltage	48V	51.2V
	Nominal Capacity	300Ah	
	Energy	14400Wh	15360Wh
	Internal Resistance	20≤mΩ	
	Cycle Life	≥6000 Cycles @ 0.2C/25°C Charging/Discharging at 80%DOD, Until 70% Capacity.	
	Self Discharge	≤3.5% per month at 25°C	
Charging	Charging Voltage	53.2-54V	56.8-57.6V
	Charging Mode (CC/CV)	At 0°C~45°C temperature, charged to 54.0V/57.6V at a constant current of 0.2C, and then, changed continuously with constant voltage of 54.75V/58.4V until the current was not more than 0.02C.	
	Standard Charging Current	60A	
	Max. Charging Current	100A	
Discharging	Standard Discharging Current	60A	
	Max. Continuous Current	100A	
	Max. Pulse Current	150A(<30S)	
	Discharging Cut-off Voltage	40.5~42.0V	43.2~44.8V
Operating Condition	Charge Temperature	0°C to 45°C(32°F to 113°F) @60±25% Relative Humidity	
	Discharge Temperature	-20°C to 60°C(-4°F to 140°F) @60±25% Relative Humidity	
	Storage Temperature	0°C to 45°C(32°F to 113°F) @60±25% Relative Humidity	
	Water Dust Resistance	IP22	
Structure	Cell & Format	IFR N300,15S1P	IFR N300,16S1P
	Casing	SPCC	
	Dimension(L*W*H*TH)	880*520*300mm	
	Net Weight	125Kg	131Kg
	Terminal	120A Quick plug and pull self-locking plug	
	Communication Port	RS485/CAN/RS232	
	Adaptable Inverter Brand	Growatt, Goodwe, SofarSolar, Deye, Voltronic, Victron, SRNE...	

Lithium Iron Phosphate (LiFePO4) Battery

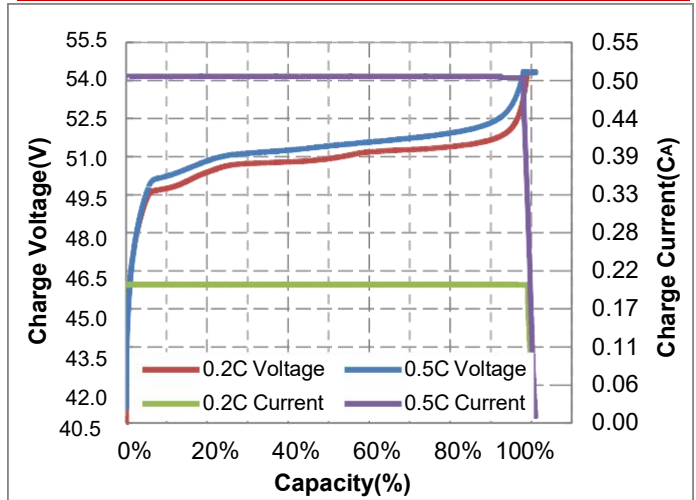
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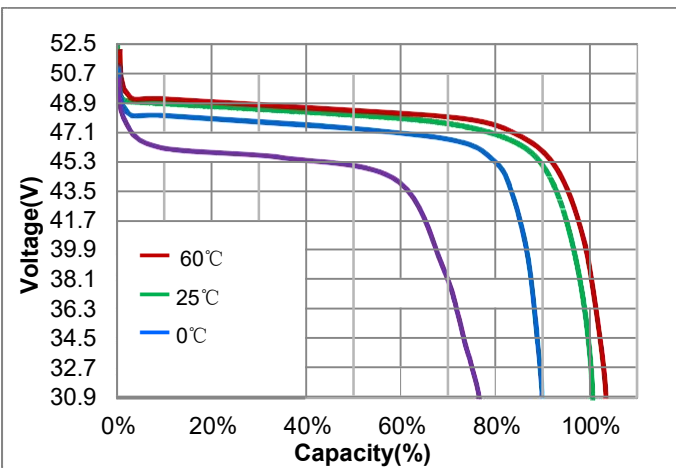
Different Rate Discharge Curve @ 25°C



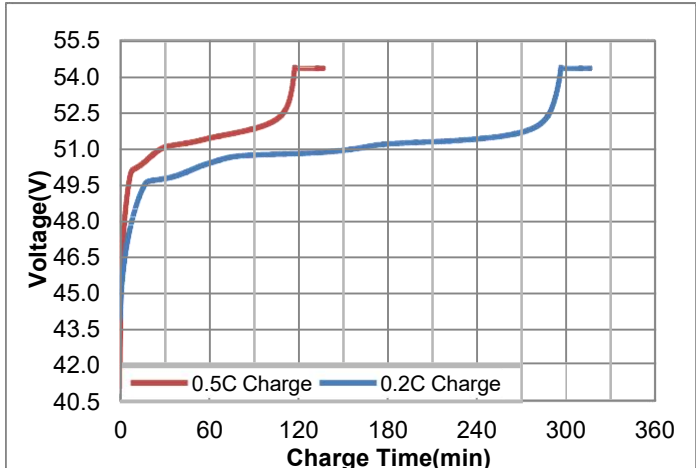
Charge Characteristics @0.2C, 25°C



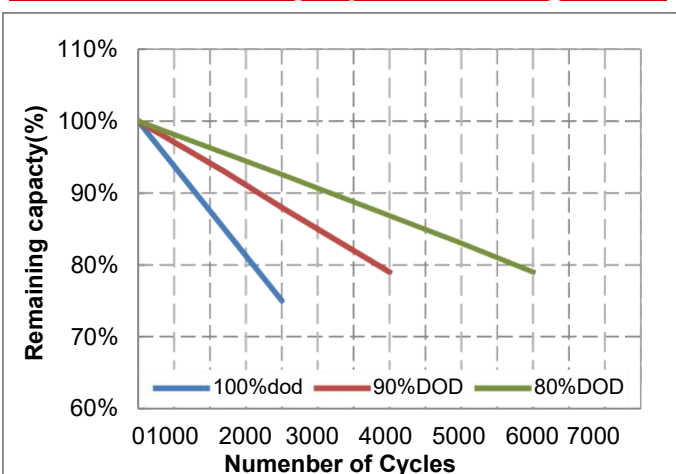
Different Temperature Discharge Curve @0.2C, 25°C



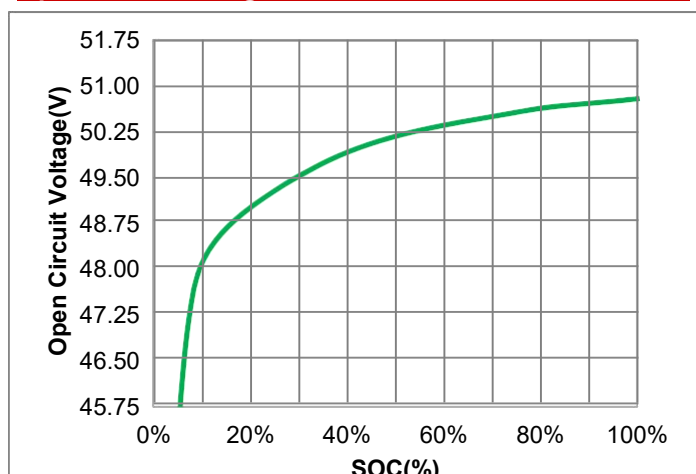
Charge Characteristics @0.2C&0.5C, 25°C



Different DOD Discharge Cycle Life Curve @0.2C, 25



Open circuit voltage VS SOC%

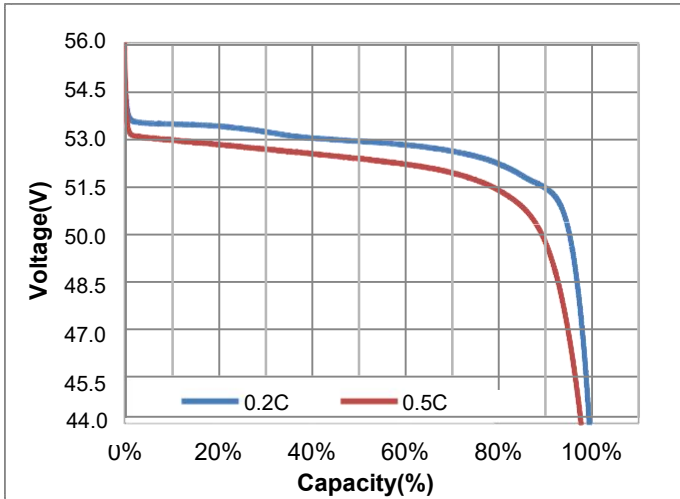


Lithium Iron Phosphate (LiFePO4) Battery

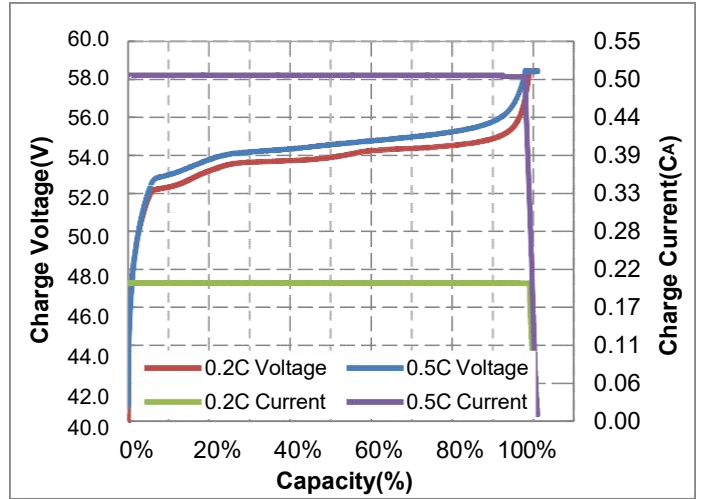
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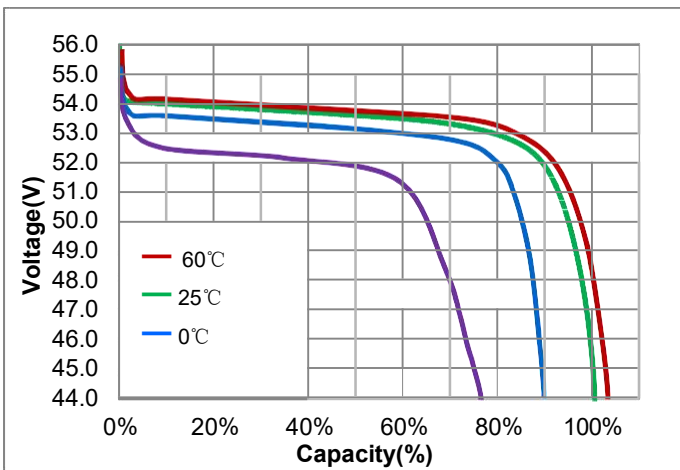
Different Rate Discharge Curve @ 25°C



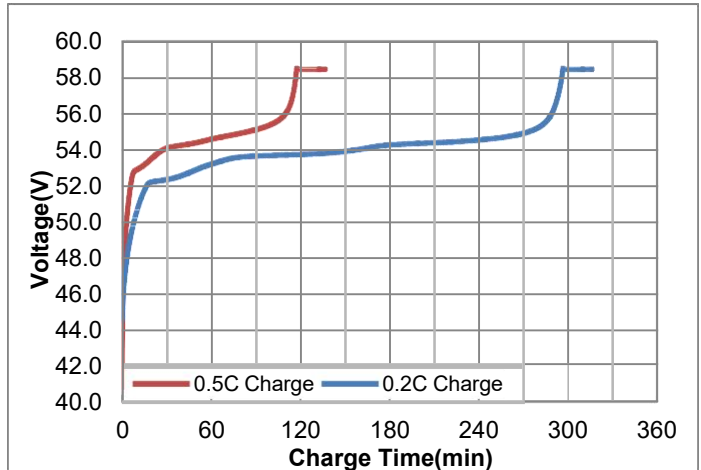
Charge Characteristics @0.2C, 25°C



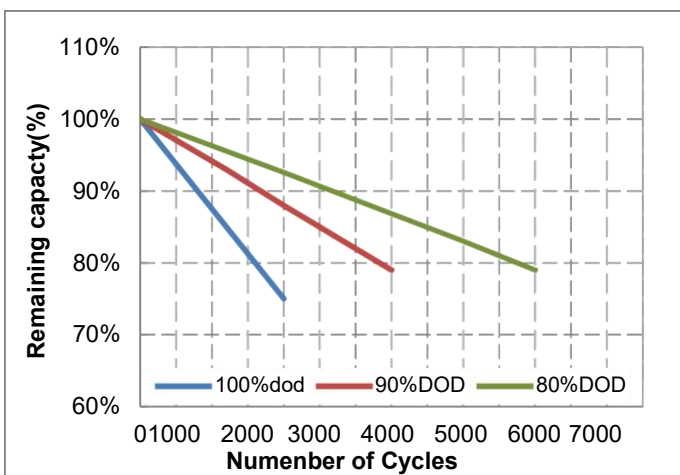
Different Temperature Discharge Curve @0.2C, 25°C



Charge Characteristics @0.2C&0.5C, 25°C



Different DOD Discharge Cycle Life Curve @0.2C, 25



Open circuit voltage VS SOC%

