

# TECHNICAL SPECIFICATION OF 51.2V100AH WALL-MOUNTED BATTERY

- **5.12KWH ENERGY**
- **6000 CYCLES**
- **CALENDER LIFE >10 YEARS**
- **CUSTOMIZATION ACCEPTABLE**
- **FREE-MAINTENANCE**
- **100 AMP SMART BMS**
- **SUPPORT CANBUS/RS485 COMMUNICATION**
- **SUPPORT MAINSTREAM INVERTER**
- **SUPPORT CONNECTION OF 16 PCS IN PARALLEL**
- **EQUIPPED WITH BATTERY STATUS MONITOR**

### Electrical Characteristic

Model	CD-PWB512100
Norminal voltage	51.2V
Norminal capacity	100AH
Norminal energy	5.12KWH
Internal resistance	≤50mΩ
Output power(Max)	5120W
Self discharge rate	≤3% per month@25°C
Max connection	16pcs in parallel
Cycle life	">6000 cycles @0.5C@80%DOD@25°C"
Working temperature	-20°C~60°C/-4°F~140°F
Storage temperature	-20°C~45°C/-4°F~113°F

### Mechanical Characteristic

Battery cell type	Prismatic battery cell
Battery cell material	Lithium iron phosphate
Battery cell capacity	100Ah
Battery cell layout	16S1P
Shell material	Iron
Dimension	605*405*200mm
Net weight	47KG/103.6LBS
Protection level	IP54
Warranty	5 years
Accessory	"1.2m 4AWG positive&negative wire *2pcs User manual*1pcs, 1m RJ45 wire *1pcs"
Interface	Quick connect terminal*4(positive*2/Negative*2) RS485 terminal *2/CANBUS terminal*1 Address dial*1/SOC indicator*1 LCD display dashboard*1

### Charging&Discharging Characteristic

Standard charge current	50A
Max charge current	100A
Charge method	CC-CV
Charge cut-off voltage	56V
Standard discharge current	50A
Max discharge current	100A
Discharge cut-off voltage	46.4V

### BMS Characteristic

Continuous discharge current	100A(MAX)
Short cuicuit protection	Support, recover when re-charge
Charge current limitation	10A
BMS pre-charge function	Suoport, 2000ms
Overcurrent protection	110A
Overcurrent reaction time	30ms
Overcharge protection	57.6V
Overdischarge protection	43.2V
Communication function	CANBUS/RS485
Current Balance(Passive balance)	150mA(Max)
Working temperature(Recommended)	-20°C~70°C/-4°F~158°F

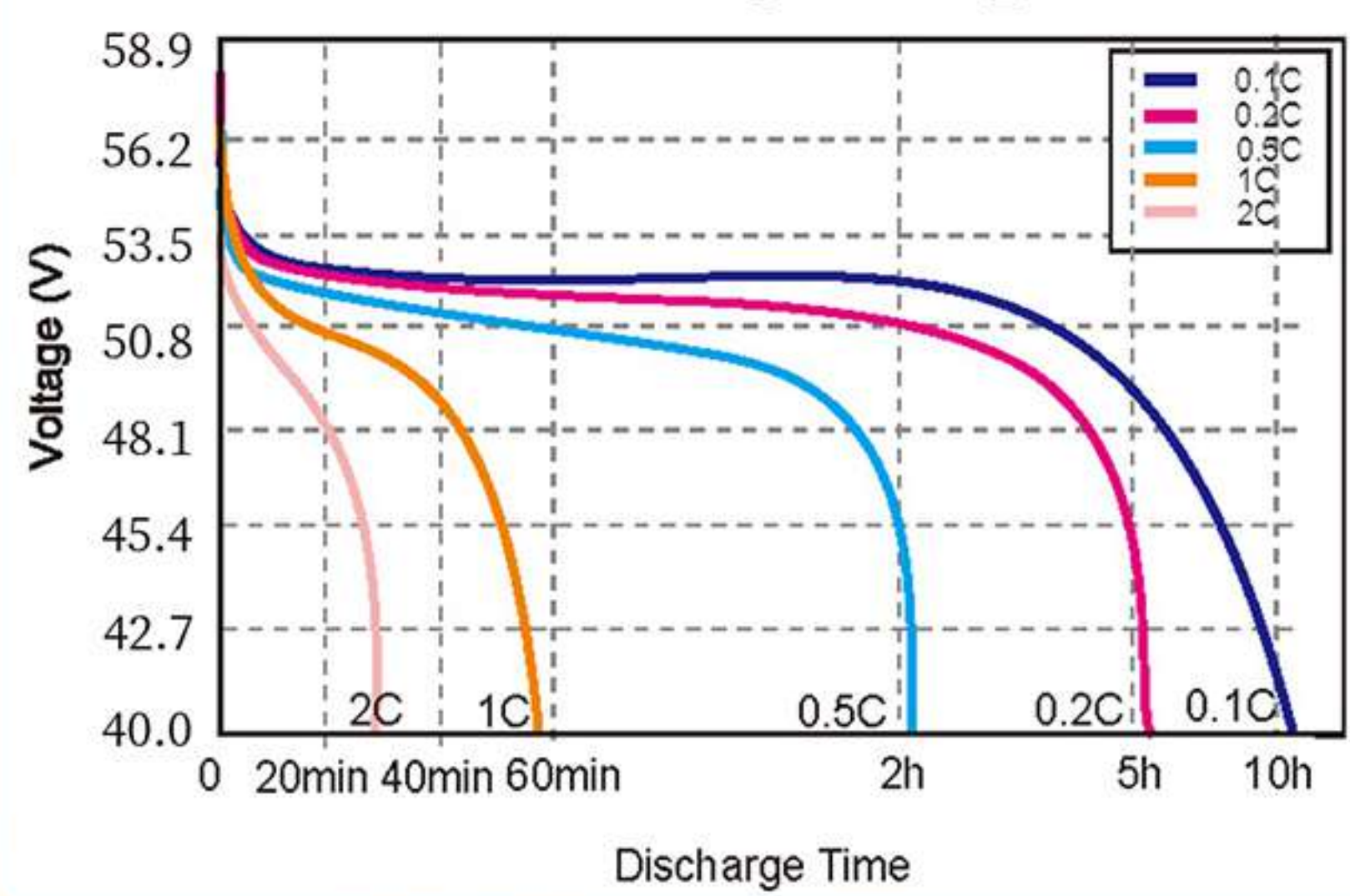


### list of inverters supported

Brand	Communication protocol	Method
GOODWE	Goodwe communication agreement -v1.5	CAN
PYLONTECH	CAN-Bus-protocol-PYLON-v1.3	CAN
GROWATT	Growatt BMS CAN-Bus-protocol_x005f low-voltage-V1.05 -EN version	CAN
VICTRON	canbus_bms_protocol	CAN
LXP	Luxpowertek Battery CAN Protocol	CAN
SOFAR	CAN-Bus-protocol REV5	CAN
DEYE	CAN-Bus-protocol-PYLON-v1.3	CAN
FOXESS	CAN-Bus-protocol-PYLON-v1.3	CAN
RENAC	CAN-Bus-protocol-PYLON-v1.3	CAN
SERMATEC	CAN-Bus-protocol-PYLON-v1.3	CAN
TBB	CAN-Bus-protocol-PYLON-v1.3	CAN
SOLIS	Goodwe communication agreement	CAN
SMA	SMA-BMZ-Protocol-en-10	CAN

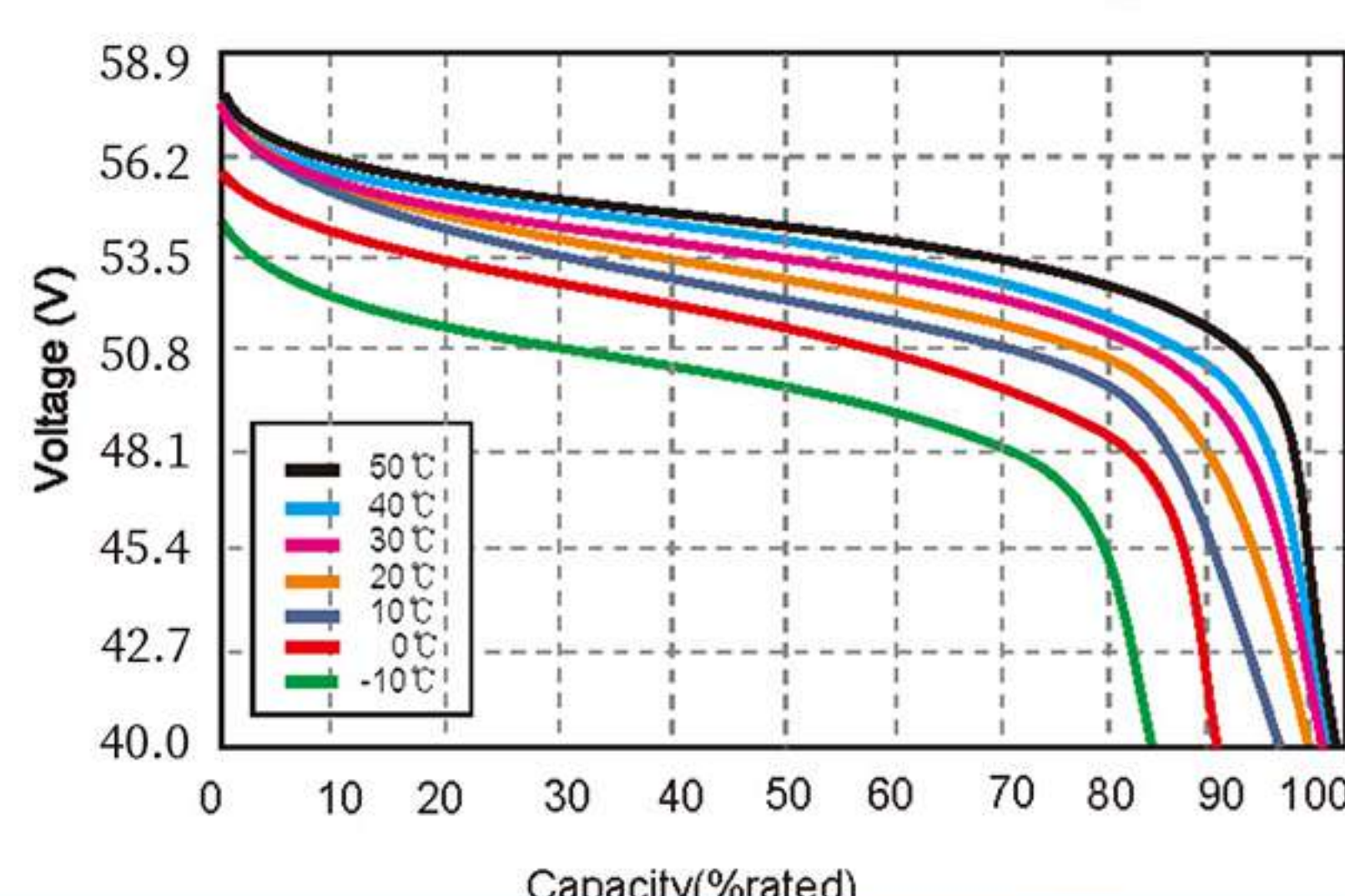
### Curve Of Different Discharge Rate

Different Rate Discharge Curve @25°C



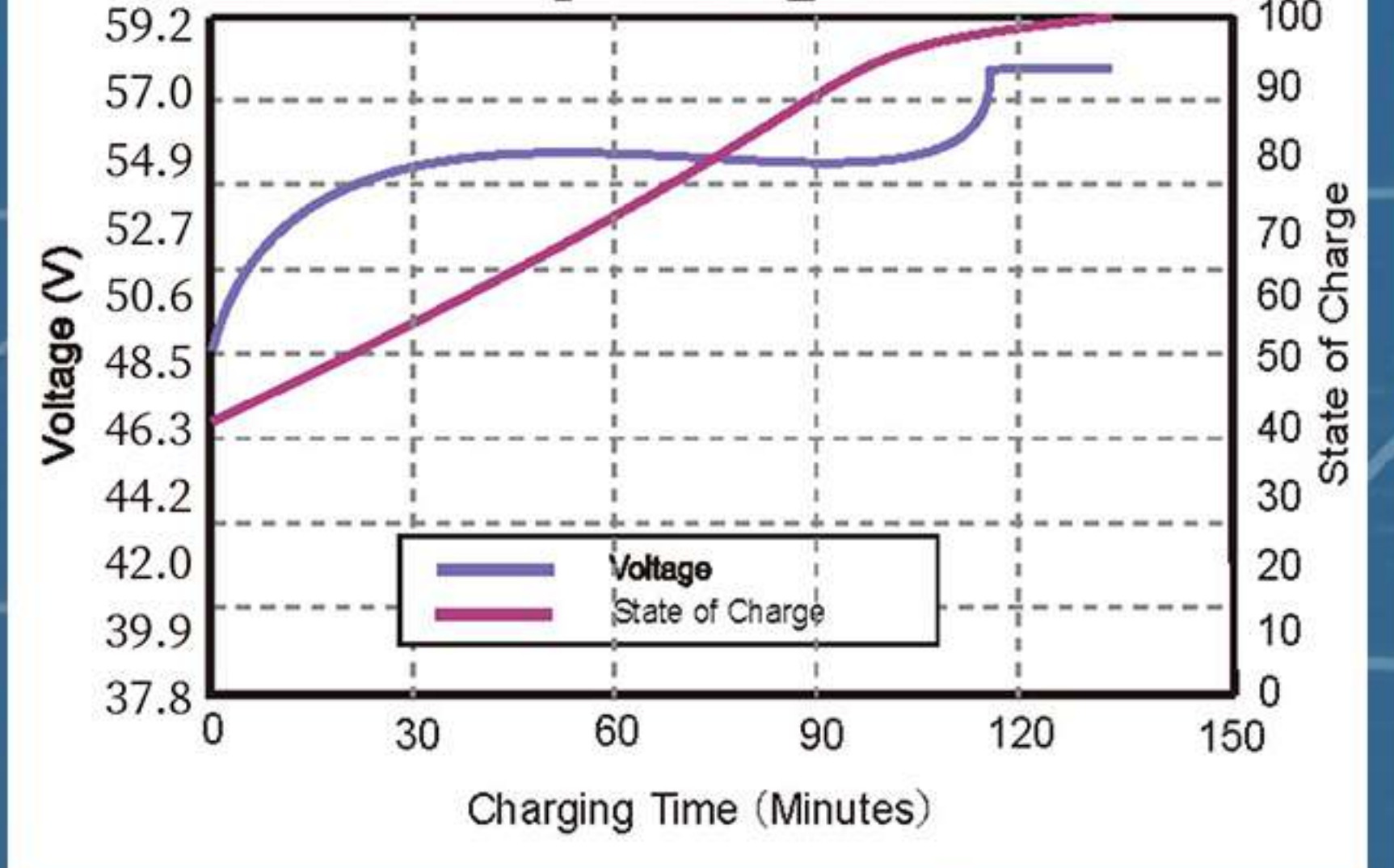
### Discharge Curve At Different Temperature

Different Temperature Discharge Curve @0.5C



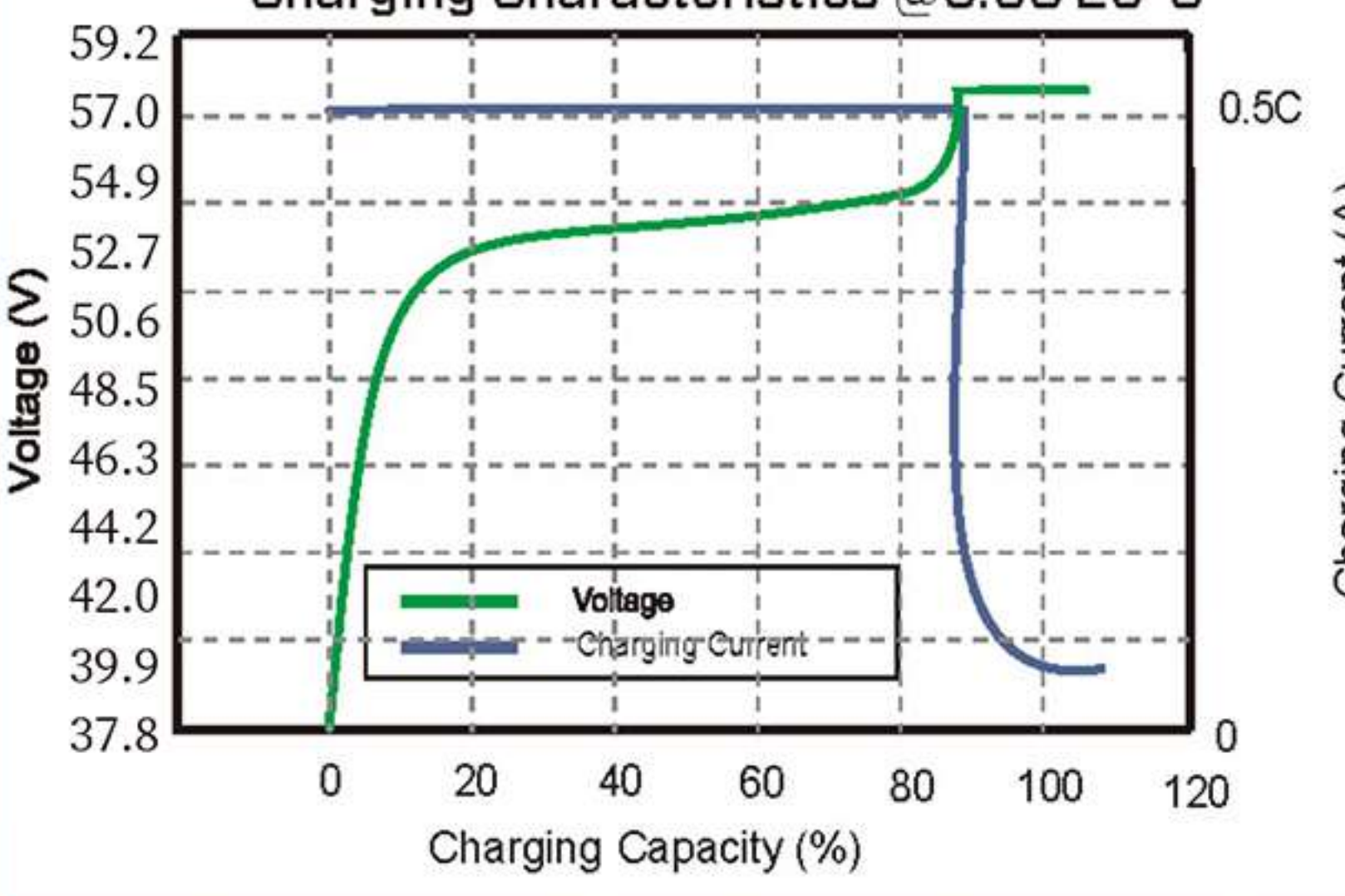
### Charging Curve Of Different SOC

State of Charge Curve @0.5C 25°C



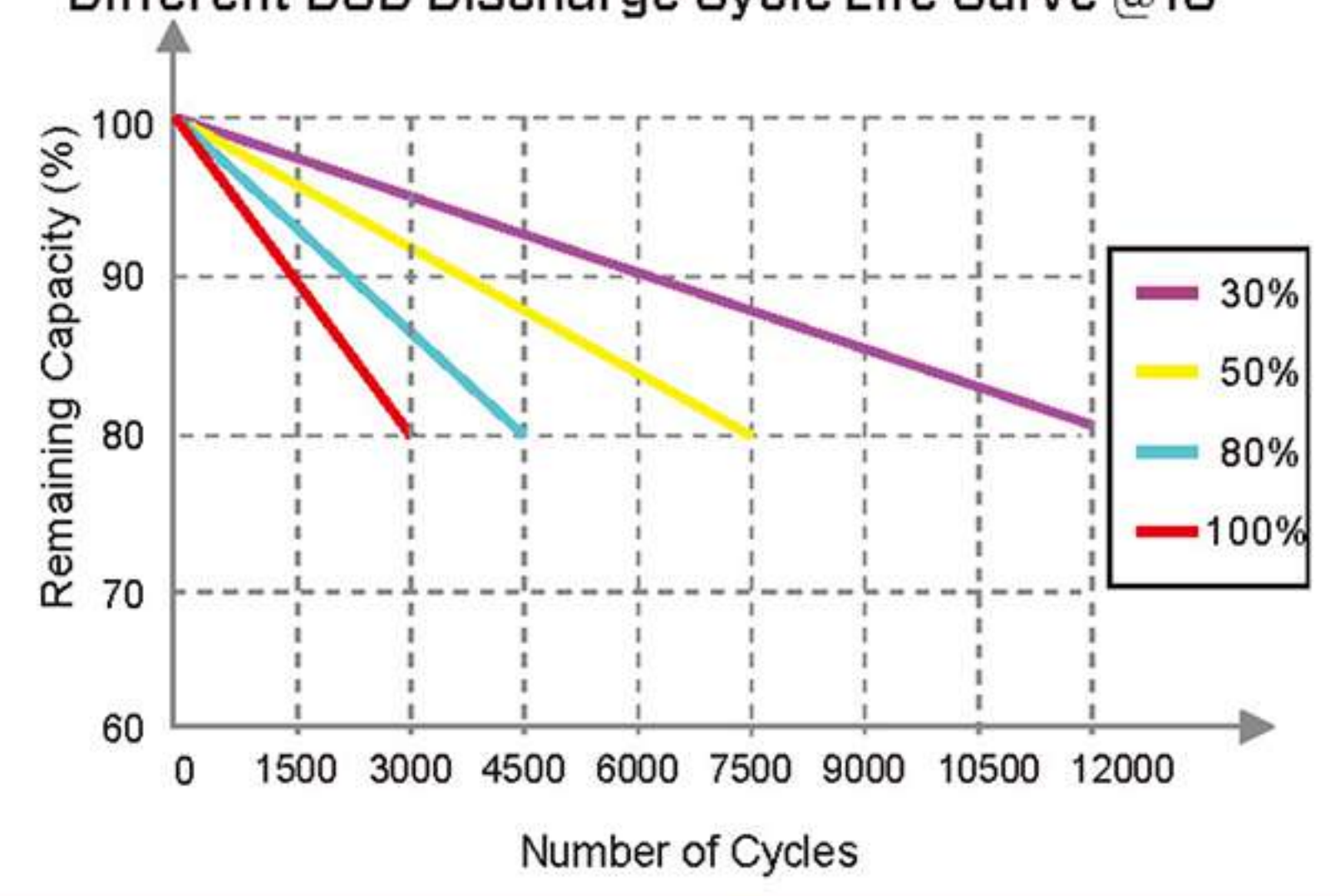
### Charging Characteristics

Charging Characteristics @0.5C 25°C



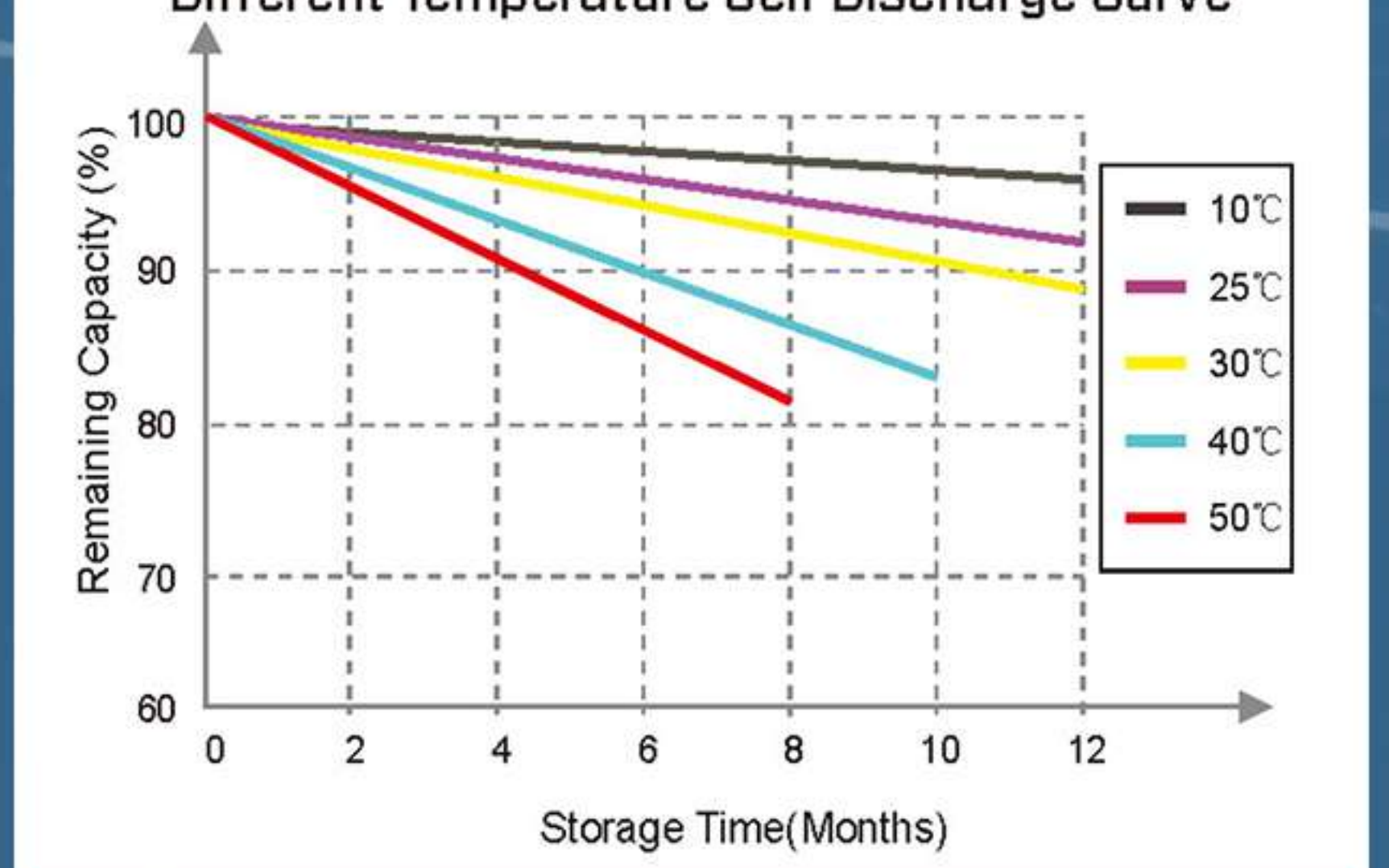
### Cycle Life Curve at Different DOD

Different DOD Discharge Cycle Life Curve @1C



### Self Discharge Curve At Different Temperature

Different Temperature Self Discharge Curve



### Cautions:

- Do NOT expose the battery to water;
- Do NOT expose the battery to fire & high temperature;
- Do NOT short circuit, crush or disassemble;
- Make sure the inverter's setting matches with the battery's charge & discharge characteristic;
- Store at 50% capacity, and recharge the battery every 3 months;
- The storage area should be clean, cool, dry and ventilated;
- Disconnect the battery from the inverter and shut down the BMS when the battery is in storage status;
- Maximum connection in 16 parallel, no series connection supported.