BEAR VOLTS
LITHIUM IRON PHOSPHATE

BV12100BTH - Polar Series

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8V
Nominal Capacity	100Ah
Capacity @ 20A	300min
Energy	1280Wh
Resistance	≤30mΩ @ 50% SOC
Efficiency	99%
Self Discharge	≤3.5% Per Month
Maximum Modules in Series or Parallel	4

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	100A
Peak Discharge Current	260A≤5s
BMS Discharge Current Cut-off	300A±50A [2.2±1ms]
Recommend Low Voltage Disconnect	8.8V
BMS Discharge Voltage Cut-off	8.8V[2.2±0.08 vpc]
Reconnect Voltage	10V[2.5±0.1vpc]
Short Circuit Protection	200-400μs

TEMPERATURE SPECIFICATIONS

Discharge Temperature	-4 to 140℉[-20 to 60℃]
Charge Temperature	-4 to 113℉[-20 to 45℃]
Storage Temperature	-4 to 95℉[-20 to 35℃]
BMS High Temperature Cut-off Discharge	149℉[65℃]
Reconnect Temperature	122℉[50℃]
Low Temperature Cut-off Charge	-4℉[-20℃]
High Temperature Cut-off Charge	129.2℉[54℃]

MECHANICAL SPECIFICATIONS

Dimensions[L*W*H]	260*168*209mm
Weight	9.6KG
Terminal Type	M8 [10-11Nm]
Case Material	ABS
Enclosure Protection	IP65
Cell Type	Prismatic
Chemistry	$LiFePO_4$
Configuration	4S1P

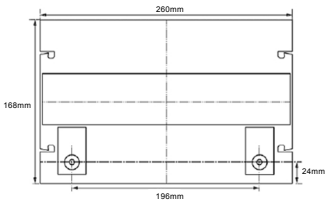
CHARGE SPECIFICATIONS

Recommend Charge Current	5A- 50A
Maximum Charge Current	100A
Recommend Charge Voltage	14.2-14.6V
BMS Charge Voltage Cut-off	15.0V[3.75±0.1V]
Reconnect Voltage	14.6V[3.65±0.1V]
Balancing Voltage	13.2V[3.3±0.025vpc]
Balancing Current	50mA

COMPLIANCE SPECIFICATIONS

Certifications	CE[Battery],UN38.3[Battery] IEC62133[cell], UL1642[cell]
Functions	Bluetooth, Pre-heating
Shipping Classification	UN3480,CLASS9

DIMENSIONAL SPECIFICATIONS



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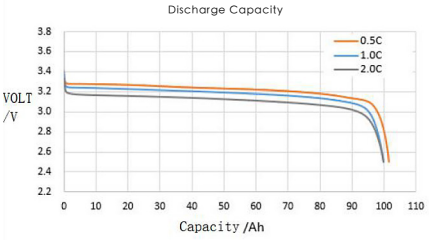
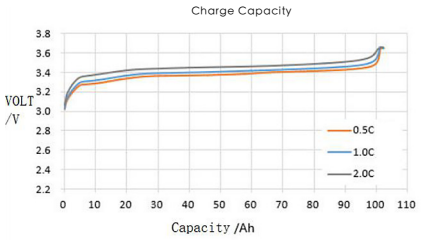
BV12100BTH
Polar Series

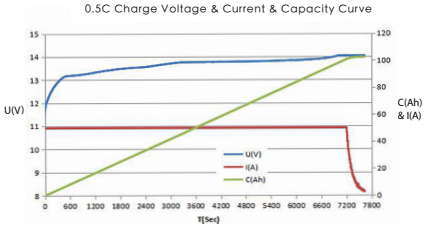
PERFORMANCE SPECIFICATIONS

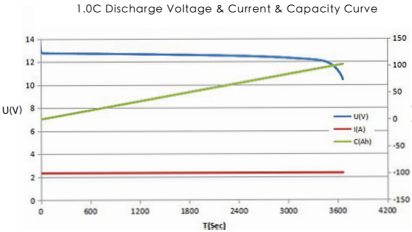
CHARGE/DISCHARGE CAPACITY AT DIFFERENT RATES FOR CELL (ROOM TEMPERATURE)





CHARGE/DISCHARGE CAPACITY AT DIFFERENT RATES FOR BATTERY PACK (ROOM TEMPERATURE)





PRODUCT DISPLAY

UN38.3 CE MSDS

SIZE STANDARD

Group 24

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