

51.2V 280Ah Energy Storage Battery



Compact Size and Easy Installation

The module design enables quick installation



Expandable at Need

Units can be combined to increase energy capacity



Systematic Safety Design & Technologies

Multi-stage protection design enhances the safe storage; meets the standards of international safety certifications



High Energy Density

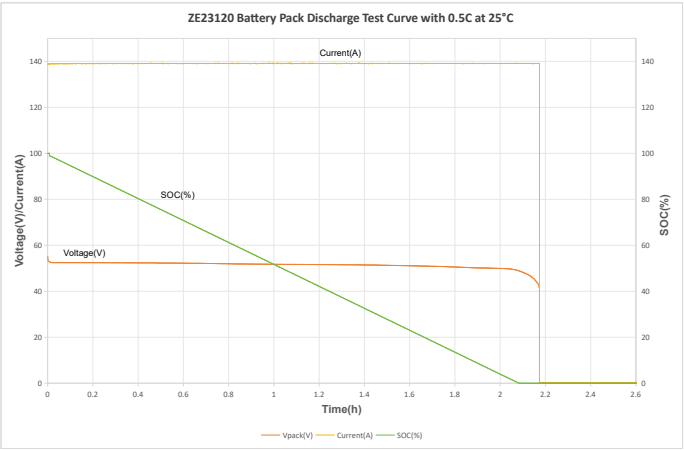
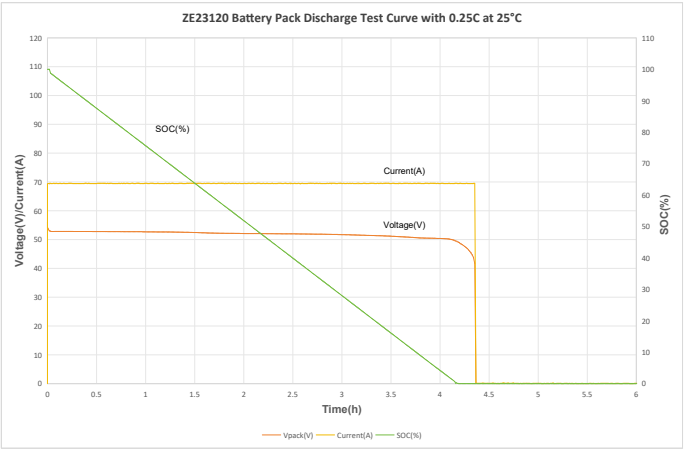
The compact structure achieves market-leading energy density

TECHNICAL DATA

Battery Model	ZE23120
Cell Chemistry	LFP
Cell Manufacturer and Model	ACE 72174204-Fe-280
Number of Cells	16pcs(16S1P)
Nominal Voltage (V)	51.2
Cycle Life	7600 cycles,70% SOH @ 0.5C/0.5C, 90%DoD(5%SOC~95%SOC), 25±5°C
Expected Cycle Life①	8000 cycles,70% SOH @ 0.5C/0.5C, 90%DoD(5%SOC~95%SOC) , 25±5°C
Calendar Life	10 years
DC Round Trip Efficiency at BOL	92%
DC Round Trip Efficiency at EOL	90.50%
Typical Capacity (Ah)	280
Nominal Energy Capacity (Wh)	14336
Weight (Kg)	120±2.0
Dimension(W*D*H) (mm)	440*780*219.5
Max Continuous Discharge Current (A)	140
Discharge Overcurrent	180A±5A (6mins) & 210A±5A (1.5mins) & 250A±5A (2 secs)
Operating Voltage (V)	44-56
Recommended Charge Voltage (V)	56
Max Continuous Charge Current (A)	140
Charge Overcurrent	160A±5A (6mins) & 180A±5A (1.5mins) & 200A±5A (2 secs)
Circuit Breaker Model	PEBS-L-80-125-C-2P
Cooling Method	Fan cooling
Operating Ambient Temperature Range°C	Charge:0°C~60°C Discharge:-20°C~60°C
Recommended Operating Temperature Range°C	Charge:15°C~35°C Discharge:15°C~35°C
Storage Temperature Range°C	-20°C~60°C
Recommended Storage Temperature Range°C	15°C~25°C
Communication	RS485,CAN
IP Rating	IP20
Operating Humidity Range	0%RH-95%RH (Non - condensing)
Installation	Floor-mounted
Scalability	Max.20 modules in parallel (286.72kWh)
Protection	Voltage protection, Temperature protection, Current protection
Certification	UN38.3, IEC62619, CE EMC, RoHS, Reach, EU, RCM

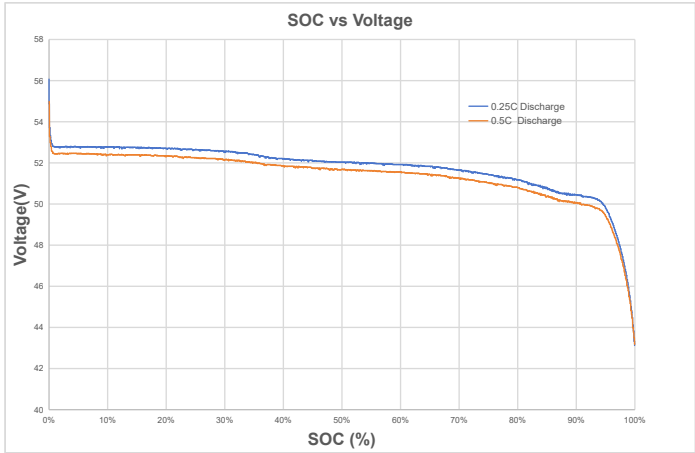
① Simulation data for reference, not for warranty

Discharge performance characteristics at different C rates



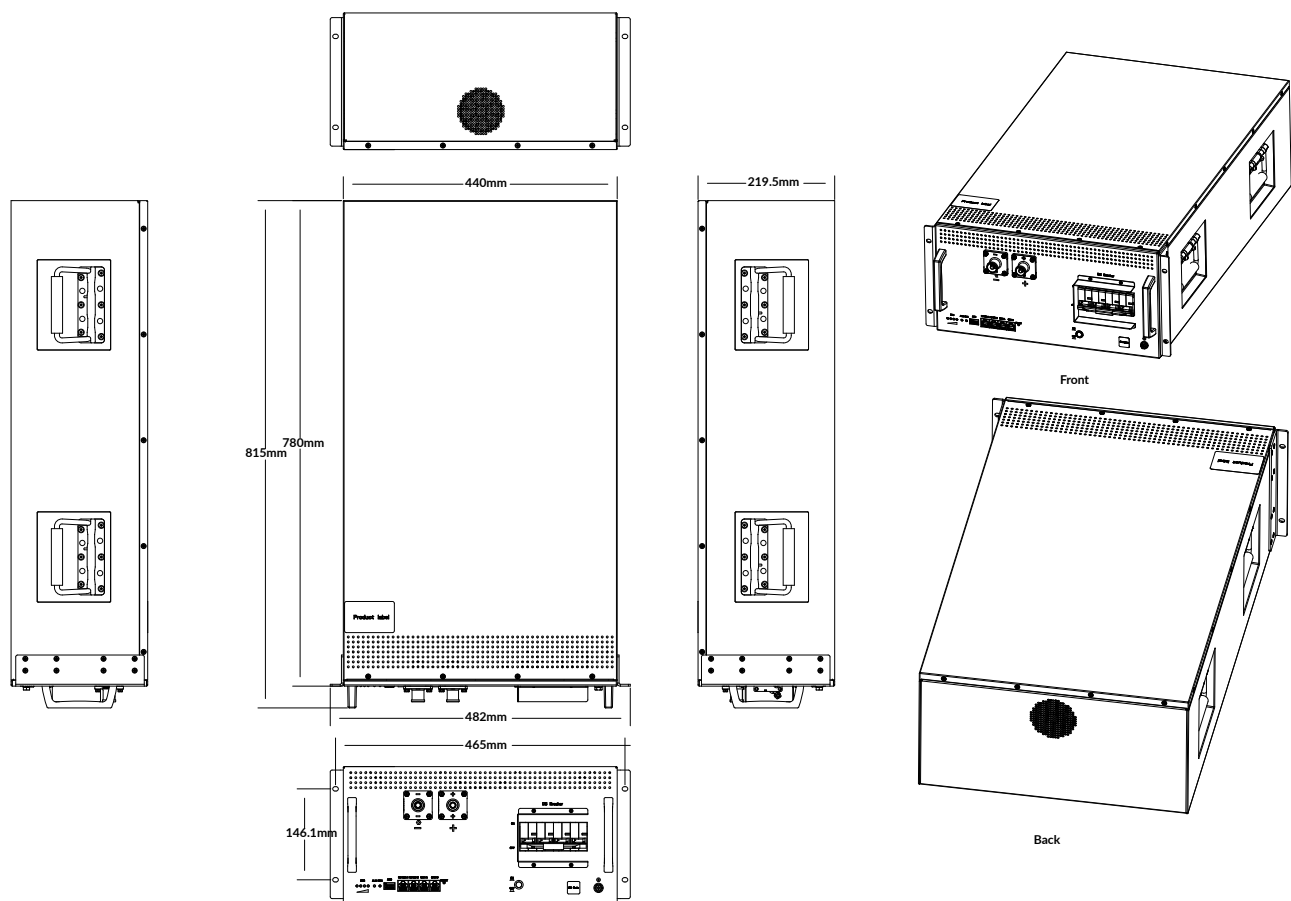
0.25C discharge at 25°C			0.5C discharge at 25°C		
Vpack(V)	SOC(%)	Current(A)	Vpack(V)	SOC(%)	Current(A)
54.89	100	70	54.94	100	140
52.80	98	70	52.44	98	140
52.82	95	70	52.44	95	140
52.80	90	70	52.43	90	140
52.73	80	70	52.35	80	140
52.61	70	70	52.19	70	140
52.26	60	70	51.89	60	140
52.07	50	70	51.71	50	140
51.96	40	70	51.58	40	140
51.78	30	70	51.40	30	140
51.38	20	70	50.95	20	140
50.61	10	70	50.23	10	140
50.39	5	70	50.01	5	140
50.30	3	70	49.85	3	140
49.17	0	70	48.83	0	140

SOC VS voltage at different C rates



0.25C discharge at 25°C		0.5C discharge at 25°C	
SOC(%)	voltage(V)	SOC(%)	voltage(V)
0	54.89	0.00	54.94
3	52.78	3.00	52.44
5	52.78	5.00	52.44
10	52.76	10.00	52.39
20	52.71	20.00	52.35
30	52.53	30.00	52.17
40	52.19	40.00	51.85
50	52.03	50.00	51.67
60	51.92	60.00	51.51
70	51.65	70.00	51.20
80	51.17	80.00	50.79
90	50.45	90.00	50.05
95	49.85	95.00	49.46
98	47.27	98.00	47.07
100	43.20	100.00	43.20

Battery design



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