

# 51.2V 314Ah 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.



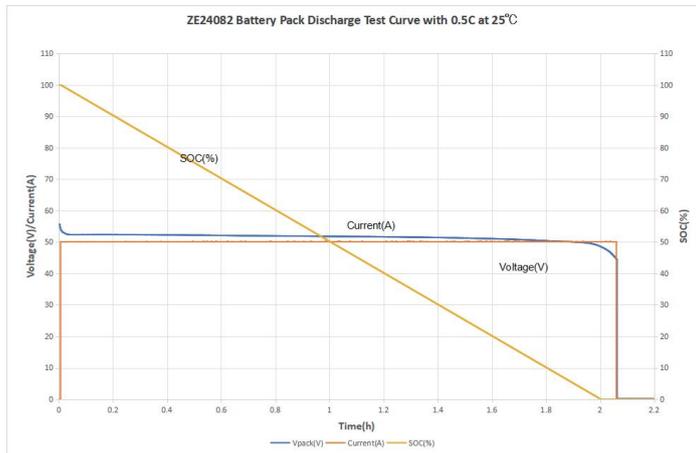
## High Energy Density

The compact structure achieves market-leading energy density.

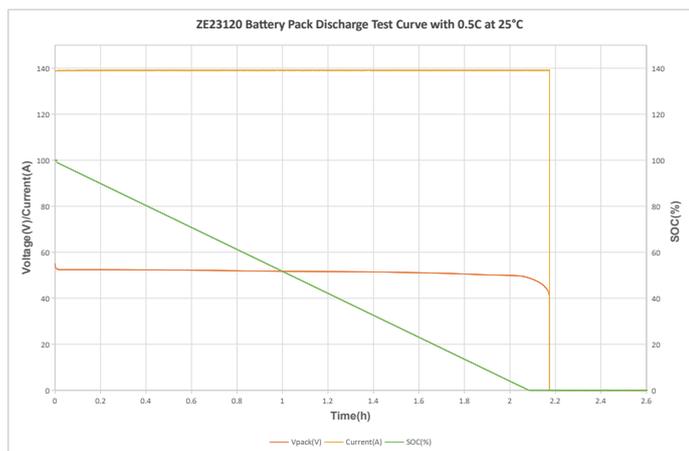
# Technical data

Items	Standard
Battery Model	ZE24056
Cell Material	LFP
Cell Manufacture	ACE 72174204-Fe-314
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 Life	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	93% (90% DOD with 0.5C)
DC Round Trip Efficiency at EOL	92% (90% DOD with 0.5C)
Typical Capacity (Ah)	314
Nominal Energy Capacity (Wh)	16076.8
DOD	90%
Usable Energy Capacity (Wh)	14469.1
Rated DC Power (kW)	8.19
Weight (Kg)	125±2.0
Dimension (W*D*H) (mm)	440*780*219.5
Max Continuous Discharge Current (A)	160
Discharge Over Current	185A±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)	160
Charge Over Current	170A±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
Humidity Range	0%RH-95%RH (Non - condensing)
Installation	Floor-mounted
Scalability	Max.20 modules in parallel (321.54kWh)
Protection	Voltage protection, Temperature protection, Current protection
Certification	UN38.3, CE EMC, IEC62619, EU Declaration of Conformity, UL1973, UL9540A, RoHS, Reach, RCM
Country of Manufacture	China

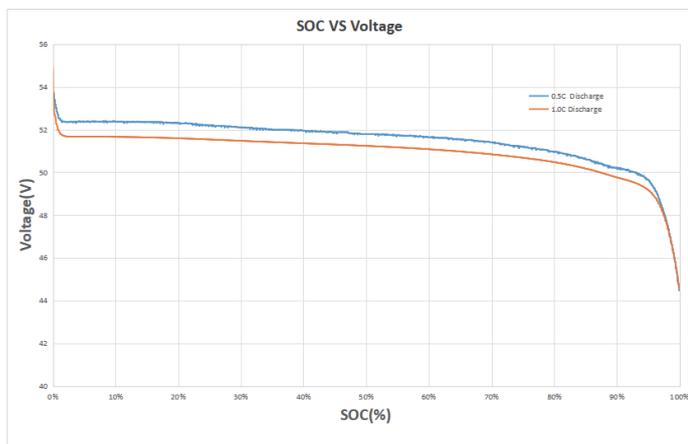
# Discharge performance characteristics at different C rates



0.5C discharge at 25°C			1.0C discharge at 25°C		
Vpack (V)	SOC (%)	Current (A)	Vpack (V)	SOC (%)	Current (A)
54.64	100	50	54.91	100	100
52.35	98	50	51.32	98	100
52.37	95	50	51.30	95	100
52.37	90	50	51.29	90	100
52.30	80	50	51.24	80	100
52.12	70	50	51.12	70	100
51.97	60	50	51.00	60	100
51.81	50	50	50.89	50	100
51.67	40	50	50.74	40	100
51.47	30	50	50.52	30	100
51.07	20	50	50.20	20	100
50.41	10	50	49.60	10	100
50.05	5	50	49.19	5	100
49.83	3	50	48.93	3	100
44.47	0	50	44.14	0	100

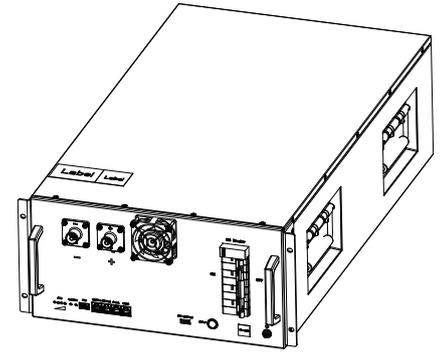
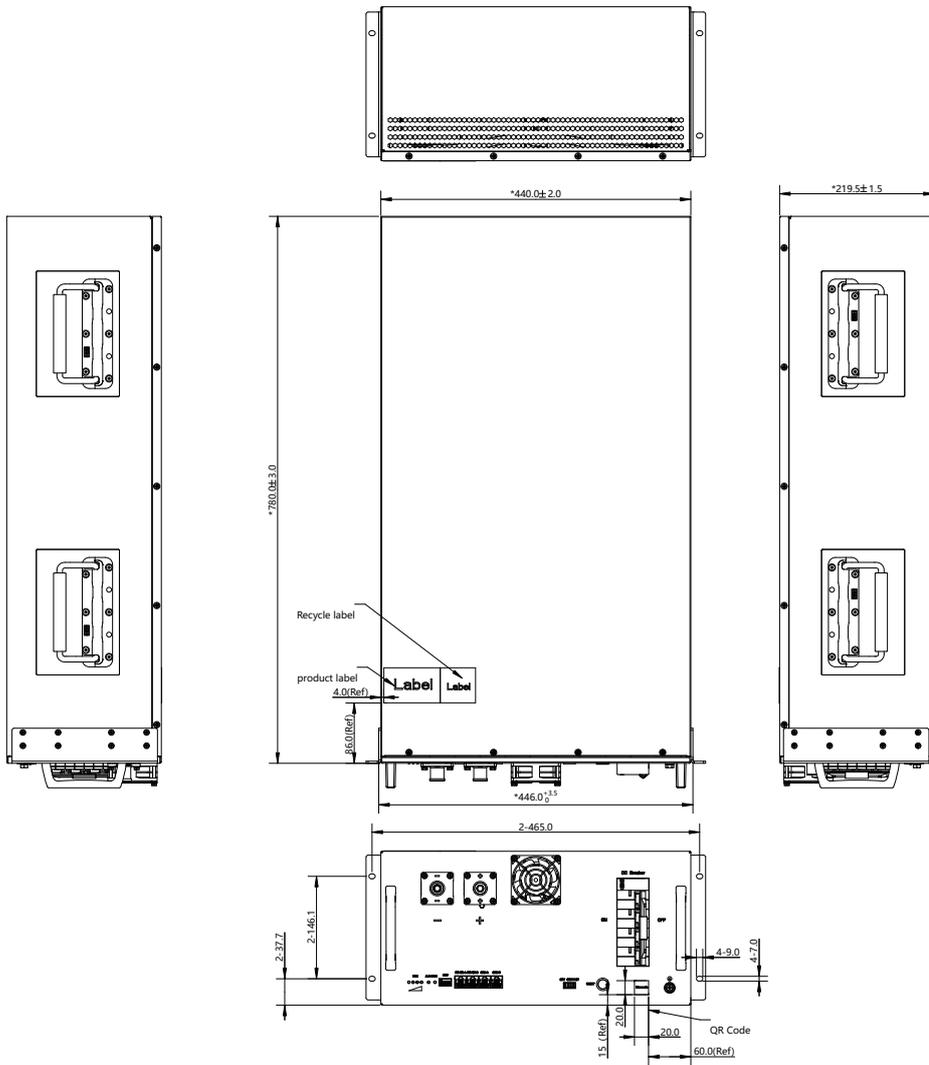


## SOC VS voltage at different C rates

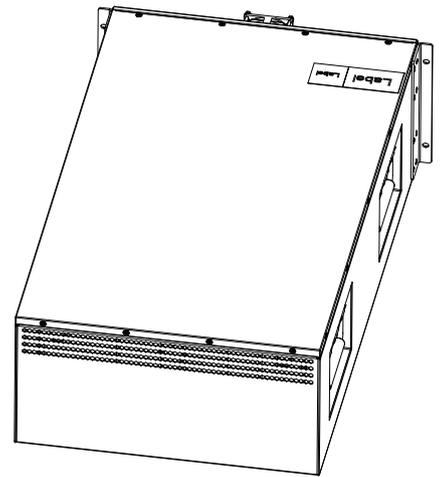


0.5C discharge at 25°C		1.0C discharge at 25°C	
SOC (%)	voltage(V)	SOC (%)	voltage(V)
0	54.67	0	54.91
3	52.35	3	51.67
5	52.38	5	51.67
10	52.38	10	51.66
20	52.31	20	51.59
30	52.11	30	51.48
40	51.95	40	51.36
50	51.79	50	51.24
60	51.64	60	51.08
70	51.41	70	50.84
80	50.94	80	50.46
90	50.22	90	49.76
95	49.66	95	49.17
98	47.70	98	47.51
100	44.47	100	44.53

# Battery design



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