



Power and Energy Solution  
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# E2209-T Sodium Nickel Chloride Battery



Technology Engineered by General Electric Company and AM Power under

Durathon® Battery

General Data		
Recharge Voltage Range	240~300	Vdc
Nominal Voltage	227	Vdc
Ambient Conditions	-40to65	°C
Humidity	<95%(no condensation)	RH
Altitude	<3,000	M
Warm-up Time	<16	Hours
Dimensions(H×D×W)	353×566×506	mm
Weight	117±2	Kg
Ingress Protection (IP)	IP 55	
Design life	20	Years

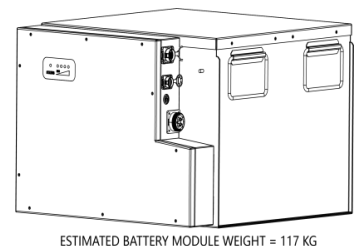
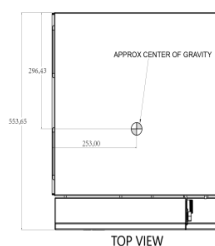
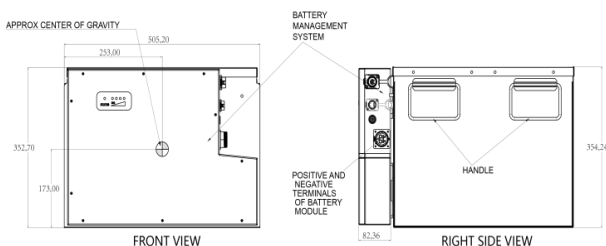
## Specific Characteristics per Model

Model	Nominal Capacity	Weight	Recharge Voltage Range	Nominal Voltage	Max charge Current	Dimensions(H×D×W)	Max Discharge Current	Internal Heater Power
E2209	41Ah	117Kg	240~300Vdc	227Vdc	8A	353×566×506mm	30A	<120W

## Technical Data

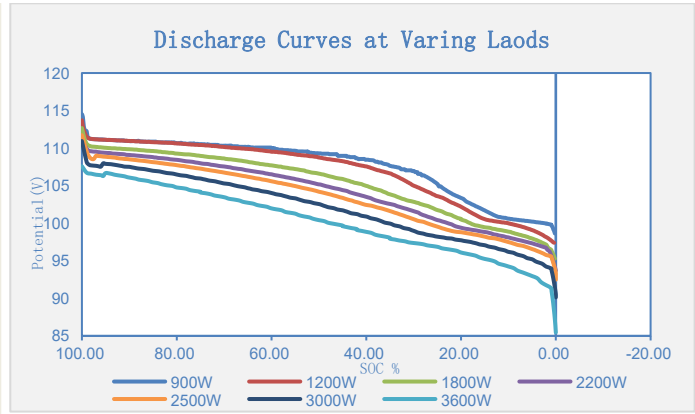
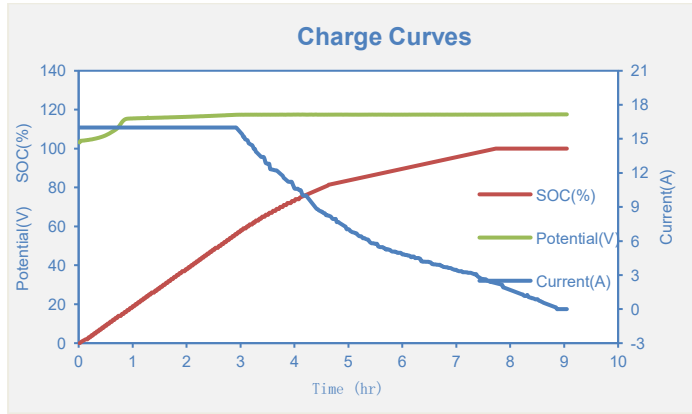
Basic Parameters			Operating Parameters			Others	
Usable Energy <sup>4</sup>	2.2	kWh	Continuous Load Range	0.24 to 0.7	kW	Battery Terminals	Quick Plug Terminal
Usable Capacity <sup>4</sup>	80	Ah	Continuous Discharge Current	8 to 24	A	Ground Connection	M6 Hex Nut
Max Recharge Current	16	A	Max Discharge Current(1h)	60	A	Communication	RS485, MODBUS
Recharge Voltage Range	30 to 40	Vdc	Max Discharge Current(1min)	120	A	Communication Protocol	CAN/LAN
Open Circuit Voltage	30.96	Vdc	Cycles Between Return to Top of Charge (TOC) <sup>5</sup>	40	cycles	Ingress Protection (IP)	IP55
						Operating Status Lights	1 LED (3 states)
						SOC Status Lights	4 LEDs

## Dimension

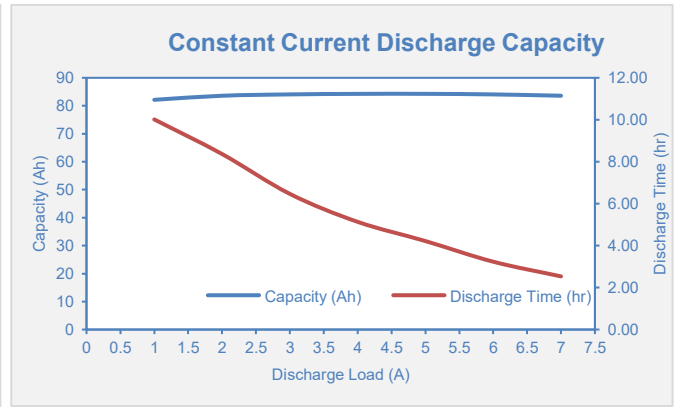
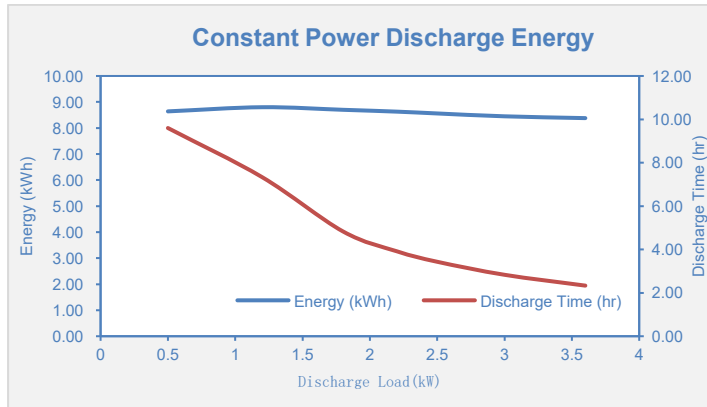


# Performance Characteristics

The performance data presented below is based on testing done at labs at 25°C and applies to ambient temperatures from -40°C to 65°C at beginning of life (BOL). Actual performance may vary. Discharge curves apply after 24-hour charge cycle.



	From 13% State of Charge to...					
	50%	60%	70%	80%	90%	95%
Charge Time (hr)	2.6	3.1	3.7	4.5	6	7

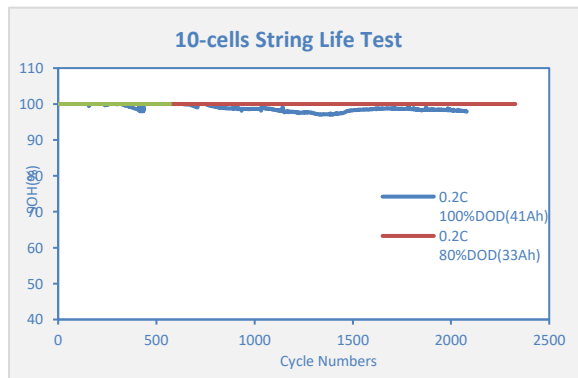


	Load (W)						
	900	1,200	1,800	2,200	2,500	3,000	3,600
Energy (kWh)	8.64	8.8	8.7	8.63	8.56	8.45	8.38
Discharge Time (hr)	9.60	7.33	4.83	3.92	3.43	2.83	2.33

	Current (A)						
	8.2	10	13	16.4	20	26	33
Capacity (Ah)	82.13	83.59	84.07	84.26	84.27	84.07	83.59
Discharge Time (hr)	10.02	8.37	6.47	5.13	4.22	3.23	2.53

## Cycle Life Projection – At Varying Loads

The performance data presented below is the lab testing results at ambient temperature(25°C). Based on the testing results, the predicted cycle life at 0.5C 80%DOD is >6000 cycles with >80%SOH.



- 1 When continuously charged and discharged at rated load.
- 2 Exact voltage is load dependent. Extendable end of discharge voltage up to 80V during overload discharge.
- 3 Dimensions are nominal.
- 4 C/10 rate at beginning of life.
- 5 Battery does not need to be taken offline to return to top of charge.

Distributed by:

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