AESON POWER

Sodium-Ion Starting Battery

Safer, Stronger, Go Longer

www.aesonpower.com

Edition: 2026.05

Company Profile

Aeson Power is an Australian company taking sodium-ion technology globally. We are a major partner with the China based XuPai Group to delivery factory direct supply of sodium-ion, lead-acid, and lithium-ion batteries for every application.

Manufacturing

Aeson Power delivers safe, reliable and high-quality products. We have 7 specialist factories with over 30 years of experience in R&D and manufacturing. Our manufacturing team has developed secure supply chains and rigorous quality control to ensure every product meets the highest global standards.

100K+
Sodium-Ion Batteries Installed

90
Production Lines

1.1M sqm
Area Covered

7
Manufacturing Centres

Sodium-Ion Technology

Sodium-ion technology is the next step beyond traditional lead-acid starting batteries. It uses a similar electrochemical principle to lithium-ion battery, but is intrinsically safer with no risk of thermal runaway. With strong cranking power across a wide temperature range, excellent high-rate performance, and long service life, sodium-ion batteries are a perfect fit for modern automotive starting applications.

Why Sodium-Ion Batteries?

Technical Landscape of Mainstream Cathode Materials

Positive Electrode Technology Routes	Advantages	Disadvantages
Layered Oxides (NFM)	High energy density	Poor safety, high cost, and low cycle life
Polyanion Compounds(NFPP)	**Good cycle life**	**Relatively Low energy density**
Prussian Blue Analogs (PBA)	High energy density	Difficulty in removing moisture during manufacturing, and toxic gases generated under specific conditions

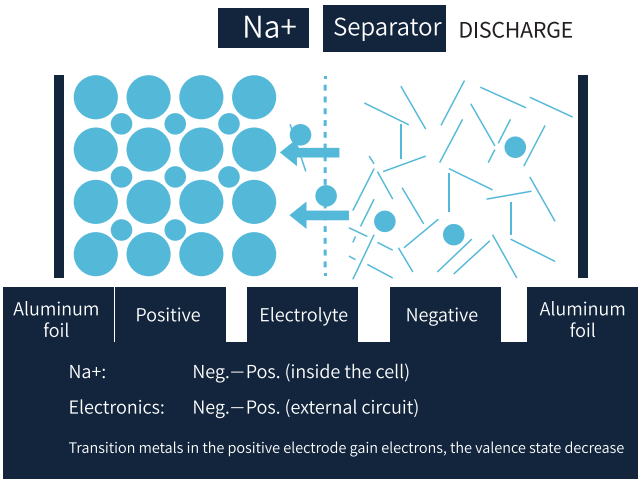
Lead-Acid, Lithium, and Sodium-Ion Batteries Comparison

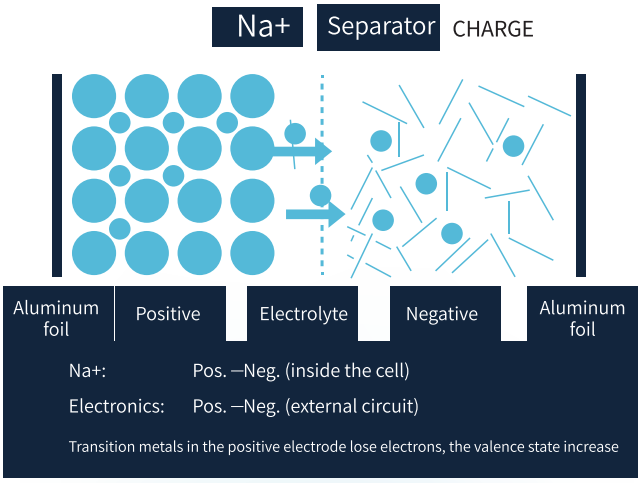
	AGM	LFP	NFPP
Energy Density (Wh/kg)	40~50	120~200	100~130
Cycle Life	＞700	5000~6000	＞5000
Voltage Range	1.75~2.4V	2.5~3.65V	1.5~3.65V
High-Temperature Performance	Moderate	Limited	Good
Low-Temperature Performance	Moderate	Poor	Good
Cost	Low	Relatively High	Low

Sodium-Ion Starting Batteries

Working Principle

Sodium-ion starting batteries store and release electrical energy by moving sodium ion between positive and negative electrodes.





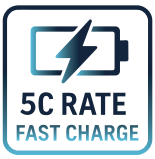
Sodium-Ion Cell Materials

Positive Electrode: Poly-anionic compounds (NFPP)
Negative Electrode: Hard carbon
Electrolyte: $NaPF_6$
Separator: PP/ PE
Shell: PC+ABS+Al
Tab: Aluminium

ADVANTAGES OF SODIUM–ION STARTING BATTERY

Long Life

High Temperature
Operation up to 80°C



Fast Charge

Super Cranking Power

Light Weight– 60% of a
Traditional Lead Battery

Recycling Friendly

Maintenance Free

Super High Cycles

Vibration Resistance
Improved

Safe/Fire Resistant
Thermal Stability

High Energy Across
the Volt Range

Non Toxic

SODIUM-ION BATTERIES SERIES

Passenger Car

NaForce SS
Start–Stop Battery

NaForce
Starting Battery for Passenger Car

NaForce EV
Auxiliary Battery for Electric Passenger Car

Commercial

TurboNa
24V Starting Battery for Commercial Vehicle

TurboNa EV
Auxiliary Battery for Electric Commercial Vehicle

Racing Car

HyperNa
Starting Battery for Racing Car

Passenger car

NaForce SS
NaForce
NaForce EV

4x4 Sedan SUV Van

NaForce SS

Replace D23, D26,
NS40 EFB,
L2-L6 AGM

60%
Lighter than lead-acid

3000 Cycles
@50%DoD

FAST
Recharge

Temp.
Operation up to 80°C

0V
Recovery

Vibration Resistance
Improved

180K/120K
Start-stop cycles

SEALED
Maintenance Free

NaForce SS	Nominal Energy (Wh)	Voltage (V)	CCA (A)	Dimensions (mm) L * W * H (TH)	Weight (Kg)	Case Size
Q85L	396	12	650	232*173*200(220)	5.5	D23
S95L	480	12	720	260*173*200(220)	6.5	D26
NS40L-Pro	**312**	**12**	**520**	**196*127*200(220)**	**5.1**	**NS40**
NS40R-Pro	**312**	**12**	**520**	**196*127*200(220)**	**5.1**	**NS40**
H5/LN2	396	12	650	242*175*190(190)	5.6	L2 AGM
H6/LN3	480	12	750	278*175*185(185)	6.5	L3 AGM
H6/LN3-Pro	**594**	**12**	**850**	**278*175*185(185)**	**7.7**	**L3 AGM**
H7/LN4	480	12	800	315*175*190(190)	6.7	L4 AGM
H8/LN5	594	12	850	354*175*190(190)	8.0	L5 AGM
H9/LN6	720	12	950	394*175*190(190)	9.5	L6 AGM

NaForce

Replace D23-D31,
NS40, NS60,
L1, L2 MF

60% LIGHTER THAN LEAD-ACID

60%
Lighter than lead-acid

2700 Cycles
@50%DoD

5C RATE FAST CHARGE

FAST
Recharge

80℃ EXTREME TEMPERATURES

Temp.
Operation up to 80°C

DEAD FLAT RECOVERY ZERO VOLTS

0V
Recovery

Vibration Resistance
Improved

MAINTENANCE FREE

SEALED
Maintenance Free

NaForce	Nominal Energy (Wh)	Voltage (V)	CCA (A)	Dimensions (mm) L * W * H (TH)	Weight (Kg)	Case Size
H4/LN1	198	12	360	207*175*190(190)	3.5	L1
L2-400L-Pro	**312**	**12**	**520**	**242*175*190(190)**	**4.8**	**L2**
NS40L	198	12	350	196*127*200(220)	3.5	NS40L
NS60L	198	12	370	238*129*200(220)	3.7	NS60L
NS60L-Pro	**240**	**12**	**420**	**238*129*200(220)**	**4.0**	**NS60L**
55D23L-Pro	**312**	**12**	**520**	**232*173*200(220)**	**4.8**	**D23L**
65D26L	312	12	520	260*173*200(220)	4.9	D26L
65D26R	312	12	520	260*173*200(220)	4.9	D26R
95D31L	396	12	650	306*173*200(220)	5.9	D31L
95D31L-Pro	**594**	**12**	**800**	**306*173*200(220)**	**8.0**	**D31L**
95D31R	396	12	650	306*173*200(220)	5.9	D31R
95D31R-Pro	**594**	**12**	**800**	**306*173*200(220)**	**7.7**	**D31R**

NaForce EV

Auxiliary Battery for Electric Passenger Car

CUSTOMIZABLE

BMS

OTA
Update

ASIL-B

60%
Lighter than lead-acid

FAST
Recharge

Temp.
-40°C ~ +80°C

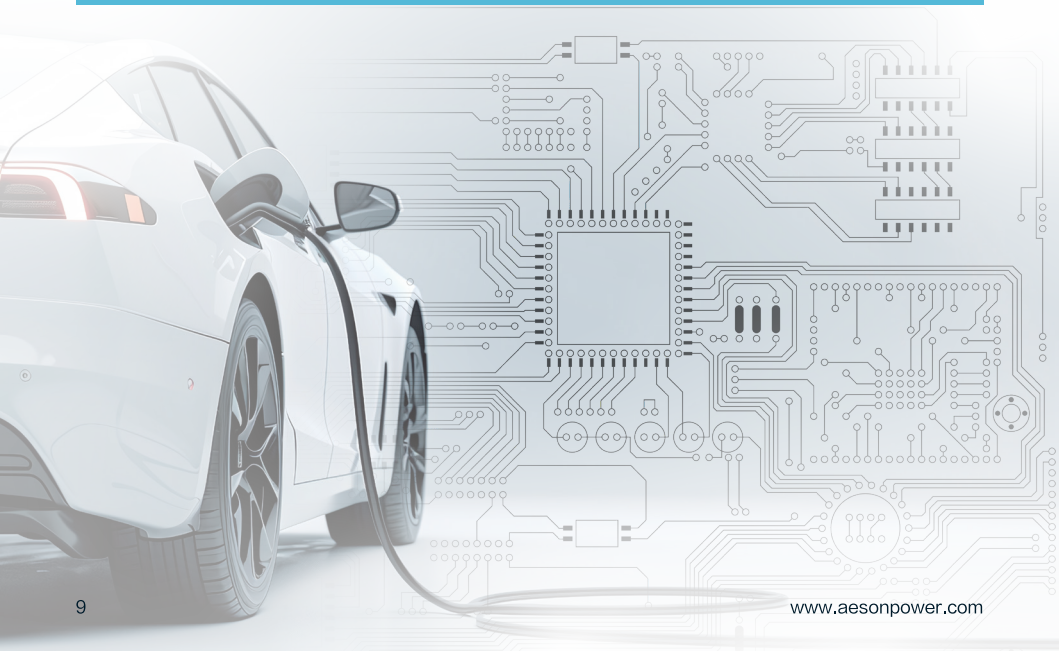
2000 Cycles
@100%DoD

Vibration Resistance
Improved

IP67

Low Voltage Protection

NaForce EV	Nominal Energy (Wh)	Voltage (V)	Dimensions (mm) L * W * H (TH)	Weight (Kg)	Communication Protocol
1215	180	12	265*180*75(75)	3.2	CAN/CANFD



Commercial

TurboNa
TurboNa EV

Diesel Gen

Light Truck

Air Compressor

TurboNa

Replace 2 pcs 12V MF & AGM units with only 1 pack

60%
Lighter than lead-acid

2700 Cycles
@50%DoD

DG

0V
Recovery

Temp.
Operation up to 80°C

Vibration Resistance
Improved

SEALED
Maintenance Free

24V Pack
All-in-One Design

TurboNa	Nominal Energy (Wh)	Voltage (V)	CCA (A)	Dimensions (mm) L * W * H (TH)	Weight (Kg)	Case Size
24-20A	480	24	450	242*175*190(190)	6.1	L2
24-40A	960	24	850	394*175*190(190)	11.5	L6

TurboNa EV

Auxiliary Battery for Electric Commercial Vehicle

CUSTOMIZABLE

BMS

Quality
Management

2000 Cycles
@100%DoD

FAST
Recharge

Temp.
Operation up to 80°C

60%
Lighter than lead-acid

Over Discharge
Protection

Vibration Resistance
Improved

IP68

TurboNa EV	Nominal Energy (Wh)	Voltage (V)	Dimensions (mm) L * W * H (TH)	Weight (Kg)
1220	228	12	238*130*200(222)	3.5
2440	912	24	343*238*200(202)	11.5

Racing Car

HyperNa

Racing Car

HyperNa

Starting Battery for Racing Car

65%
Lighter than lead-acid

3000 Cycles
@50%DoD

FAST
Recharge

Super Cranking
Power

Temp.
-40°C ~ +80°C

Vibration Resistance
Improved

SEALED
Maintenance Free

HyperNa	Nominal Energy (Wh)	PHCA	CCA (A)	RC (min)	Weight (Kg)	Case Size
NS40-Extreme	312	1250	520	55	5.0	NS40
H5-Extreme	396	1600	660	82	5.5	L2 AGM

Lighter Weight. Harder Start. Designed to Race.

AESON POWER

AESON POWER PTY LTD
Address: 3 Cochrane Street,
Mitcham, VIC 3132, Australia
www.aesonpower.com
contact@aesonpower.com
+61 3 9545 5993

Linkedin

Website