



Na⁺ Series

12V Sodium Ion Technology

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-40°C to +60°C



20x Lifetime
of Lead Acid



Superior
Safety



Ultimate Cold Start
Performance



4 Ah
CCA 120 A

48 Wh
112 × 69 × 106 mm



18 Ah
CCA 360 A

216 Wh
197 × 128 × 220 mm



27 Ah
CCA 500 A

324 Wh
238 × 129 × 223 mm



54 Ah
CCA 850 A

648 Wh
260 × 173 × 225 mm



81 Ah
CCA 1250 A

972 Wh
330 × 172 × 240 mm



Powering the Future with Sodium Ion.



SUSTAINABLE
& ABUNDANT



HIGH ENERGY
DENSITY



BUILT TO PERFORM.
BUILT TO LAST.

	Core value proposition Sodium-ion 12V starter battery platform	
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Core value proposition

12V drop-in starter battery family for vehicles, fleets and cold-climate applications

The Na+ Series combines wide temperature performance, superior safety and long usable lifetime compared with conventional lead-acid starter solutions.

-40°C to +60°C Discharge operating range	20x Lifetime of Lead Acid
Superior Safety Sodium-ion technology	Ultimate Cold Start performance for harsh climates

Key benefits

Ultra Safe Sodium-ion chemistry is positioned for robust safety behavior in demanding 12V starter-battery applications.	No Maintenance Low self-discharge reduces the need for regular charging and supports long storage periods.
Longer Lasting High cycle performance with >5,000 cycles and long usable service life in hot or cold climates.	BMS-less Battery Lead-acid-compatible 12V operating window supports simplified drop-in integration without active BMS electronics.

Product offerings

Standard 12V starter battery configurations covering capacity, energy, cold-cranking amps and housing dimensions.

Capacity	Watt-hour	CCA	Dimensions (mm)
4 Ah	48 Wh	120 A	112 × 69 × 106 mm
18 Ah	216 Wh	360 A	197 × 128 × 220 mm
27 Ah	324 Wh	500 A	238 × 129 × 223 mm
54 Ah	648 Wh	850 A	260 × 173 × 225 mm
81 Ah	972 Wh	1250 A	330 × 172 × 240 mm

Applications

One battery solution family for applications from two wheels to heavy duty.

Sedans Passenger cars and starter systems	Mini vans Light commercial and family vehicles	Pickups Utility and fleet-duty packs
Motorcycles Compact high-CCA 12V packs	Semis Heavy-duty commercial vehicles	Buses Large vehicle starter support
Small boats Marine 12V starter applications	Snowmobiles Cold-climate recreational use	Golf carts Recreational and light-duty mobility
HEVs / EVs Auxiliary 12V support systems	Autorickshaws Urban mobility starter systems	Forklifts Industrial traction support

Wide temperature performance

-40°C to +60°C Discharge operation range	0°C to 55°C Charge operation range
<= 70% Storage humidity	

Storage requirements

Item	Specification
Storage temperature	1 month: -20 to 45°C 3 months: 0 to 45°C 12 months: 0 to 25°C
Storage humidity	<= 70%
Operation temperature	Charge: 0 to 55°C Discharge: -40 to 60°C

Handling note

Store packs in a dry, controlled environment and follow the applicable transport and storage instructions. The temperature headline refers to discharge operation; charging range is specified separately.



Battery pack basic parameters

Pack-level technical values

Battery pack basic parameters

Item	Specification
BMS concept	No active BMS; passive balancing
Rated voltage	12 V
Operational voltage	8 V - 14.4 V
Cycle life	> 10,000
Shipping voltage	~30%
Certificates	UN38.3

Integration concept

8 V - 14.4 V operating window

This supports simplified 12V integration and drop-in compatibility for applications designed around lead-acid starter battery behavior. Final validation should be completed against the latest TDS and vehicle-level requirements.

Configuration by model

Standard discharge is specified at 0.5C for each capacity.

Capacity	Watt-hour	Cranking amp	Standard discharge	Dimensions (mm)
4 Ah	48 Wh	120 A	2 A (0.5C)	112 × 69 × 106 mm
18 Ah	216 Wh	360 A	6 A (0.5C)	197 × 128 × 220 mm
27 Ah	324 Wh	500 A	13.5 A (0.5C)	238 × 129 × 223 mm
54 Ah	648 Wh	850 A	27 A (0.5C)	260 × 173 × 225 mm
81 Ah	972 Wh	1250 A	40.5 A (0.5C)	330 × 172 × 240 mm