

Panasonic AUTOMOTIVE

GREATER PEACE OF MIND FOR YOUR DRIVING LIFE

Batteries for Idling Stop Vehicles / Vehicles
with Charging Control Systems



Images are for illustrative purposes only. Actual products may differ.



circla For Vehicles With Idling Stop Systems CR Series

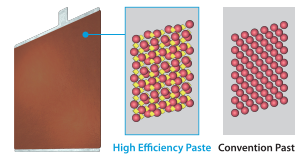
Compared to Our Standard Products*1
Achieves Increased Capacity Across All Sizes *2

By adopting a high-efficiency paste that combines two different types of lead particles, the reaction surface area for electricity output is increased, resulting in enhanced capacity across all sizes.*2 Even in vehicles equipped with idling stop systems—which are prone to power shortages—this high-capacity (high-performance grade) car battery ensures stable performance, eliminating concerns about insufficient power.

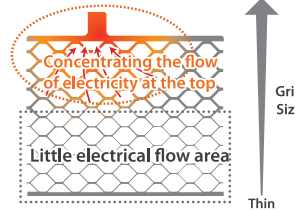
Idling Stop System Lifespan
Approximately 1.5x Longer *3

As car batteries age with continued use, voltage gradually declines. Once it drops below a certain threshold, the idling stop system will cease to function."circla" batteries utilize a highly durable alloy and feature increased grid surface density, enhancing both durability and electrical conductivity. In addition, by maintaining a condition close to that of a new battery even after use begins, voltage drop is suppressed—achieving a lifespan approximately 1.5 times longer³ compared to our standard products¹. This allows the idling stop system to operate effectively over an extended period.

High Efficiency Paste(image)

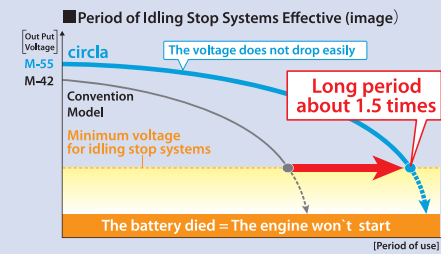


High Durability Grid(image)



The Relationship Between High Capacity and Longevity

In vehicles equipped with idling stop systems, higher-capacity batteries reduce the risk of power shortage and help prevent voltage drops. As a result, the idling stop system can operate for a longer duration.



circla For Vehicles With Charging Control Systems CR Series

Unlock the Fuel Efficiency Potential of Charging-Control Vehicles*5
High-Speed Charging Performance (Charging Acceptance⁶)*:
Approximately 1.5x Higher *7

Vehicles with charging control systems tend to experience frequent power shortages due to regulated charging. To address this, high-speed charging performance—which enables rapid recharge—is essential. "circla" batteries quickly restore charge even in vehicles prone to undercharging, helping to unlock the full fuel efficiency potential of charging control vehicles.*5

Even in Charging Control Vehicles
Approximately 1.2x Longer Lifespan *8



circla – For Vehicles with Idling Stop Systems: Specifications Table

Model	Terminal Position	Voltage (V)	5-Hour Capacity (Ah)	Standard Charging Current (A)	Max External Dimensions (mm) (LxWxH)	Battery Weight (Approx. kg)	Handle	Vent Plug	Indicator
N-M42L/CR	L	12	32	3.5	197 × 129 × 227	11.0	Resin Handle	Protruding Type	None
N-M42R/CR	R	12	32	3.5	197 × 129 × 227	11.0	Resin Handle	Protruding Type	None
N-N65/CR	L	12	40	4.5	238 × 129 × 203	13.5	Resin Handle	Protruding Type	None
N-Q90/CR	L	12	53	6.5	232 × 173 × 225	18.0	Resin Handle	Protruding Type	None
N-S100/CR	L	12	64	8.0	260 × 173 × 225	20.0	Resin Handle	Protruding Type	None

- * Notes:
 • Before installation, please confirm vehicle compatibility.
 • *Length* excludes protrusions such as handles or terminals.
 • *Values in this specification table are based on tests per JIS D 5306 (Japanese Industrial Standard) and are not guaranteed performance values.

CR Series – 4 Sizes / 5 Products

circla – For Standard Vehicles (with Charging Control Systems): Specifications Table

Model	Terminal Position	Voltage (V)	5-Hour Capacity (Ah)	Standard Charging Current (A)	Max External Dimensions (mm) (LxWxH)	Battery Weight (Approx. kg)	Handle	Vent Plug	Indicator
N-40B19L/CR	L	12	28	3.5	187 × 127 × 227	8.0	Resin Handle	Flat Type	None
N-40B19R/CR	R	12	28	3.5	187 × 127 × 227	8.0	Resin Handle	Flat Type	None
N-60B24L/CR	L	12	36	4.5	238 × 129 × 227	11.0	Resin Handle	Flat Type	None
N-60B24R/CR	R	12	36	4.5	238 × 129 × 227	11.0	Resin Handle	Flat Type	None
N-75D23L/CR	L	12	52	6.5	232 × 173 × 225	14.5	Resin Handle	Flat Type	None
N-75D23R/CR	R	12	52	6.5	232 × 173 × 225	14.5	Resin Handle	Flat Type	None
N-90D26L/CR	L	12	55	6.5	260 × 173 × 225	16.5	Resin Handle	Flat Type	None
N-90D26R/CR	R	12	55	6.5	260 × 173 × 225	16.5	Resin Handle	Flat Type	None
N-105D31L/CR	L	12	64	8.0	306 × 173 × 225	20.0	Resin Handle	Flat Type	None
N-105D31R/CR	R	12	64	8.0	306 × 173 × 225	20.0	Resin Handle	Flat Type	None

- * Notes:
 • *Length* excludes protrusions such as handles or terminals.
 • Specification values are based on tests in accordance with JIS D 5301 (Japanese Industrial Standards) and are not guaranteed values.

1) Refers to standard batteries installed in new vehicles. 2) Comparison based on performance rank (a composite indicator of starting power and capacity) between our standard product (M-42) and circla (M-55), same size. As of May 24, 2019, according to internal testing. 3) Based on internal tests comparing the operational duration of the idling stop system between standard (M-42) and circla (M-55) batteries, until the system stops functioning. As of May 24, 2019. 4) Whichever comes first. 5) Not a guaranteed effect. 6) Indicates the battery's ability to rapidly increase its charge state (ease of charge acceptance) under specified conditions. 7) Comparison between our standard (S5D23) and circla (80D23). 8) Value based on our internal high-load endurance tests. Not from actual driving tests. Values are approximate and may vary depending on vehicle type and usage conditions. * For open-priced items, please inquire with the retailer for pricing. Images are for illustrative purposes only. Actual appearance may differ.

Distributor



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Panasonic AUTOMOTIVE

現代の車に最適化

INTRODUCING
caos EN, C8 & A4 SERIES

Optimized for
Performance

Images are for illustrative purposes only. Actual products may differ.



To the high-capacity caos car battery lineup Introducing the EN Series

High Capacity

Longer Life Span

The high-performance caos car battery now introduces the EN Series. With the trusted high capacity that caos has cultivated, it delivers a safe and worry-free driving experience even for vehicles equipped with EN-standard batteries in Japan.

Industry-Leading High Capacity

Advanced technologies such as driver-assistance systems and connected services require significant electrical power, raising concerns about power shortages. The caos EN Series, featuring industry-leading high capacity*1, offers greater energy reserves, reducing the likelihood of power deficiency. Its long life and compatibility with vehicles equipped with cutting-edge EN-standard batteries deliver a worry-free, highly convenient driving experience.



* Based on internal testing as of June 1, 2023, comparing 20-hour capacity (defined as over 51Ah) within the same battery size range for domestic automotive batteries.

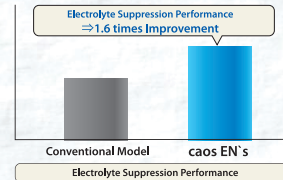
Panasonic caos EN Series — Product Specifications Table

Model	Voltage (V)	20-Hour Capacity (Ah)	Cold Cranking Amps (CCA)	Terminal Layout	Handle	Indicator	Max Dimensions (mm) (LxWxH)	Weight (kg)
N-355 LN1/EN	12	51	350	Left	YES	YES	207 × 175 × 190	12.5
N-370LN2/EN	12	62	460	Left	YES	YES	242 × 175 × 190	15.0
N-385LN3/EN	12	72	600	Left	NO	YES	278 × 175 × 190	17.5

© The values listed in the specification table are based on test results according to Battery Association Standard SBA S 0102 and are not guaranteed values.

Designed to Minimize Electrolyte Loss

As a car battery is used over time, electrolysis and evaporation during charging can cause a reduction in battery fluid. The caos EN Series is engineered with an optimized venting structure that reduces fluid loss. Compared to our previous models, it offers approximately 1.6 times better performance in suppressing electrolyte loss*. This helps reduce issues caused by fluid depletion.



For Standard Vehicles (with Charging Control Systems)



NEW C8 Series
Key Features of a Car Battery for Charging-Control Vehicles
High Capacity and High-Speed Charging Performance

Approximately
1.66x Longer
Lifespan

Challenges Faced by Charging-Control Vehicles
Short charging durations make car batteries prone to power shortages. In charging-control vehicles, charging time for the car battery is shortened to improve fuel efficiency. If electricity is consumed—by devices like audio systems or air conditioning—before the battery has a chance to recharge, the vehicle becomes increasingly susceptible to power shortages.

Frequent Charging and Discharging Accelerates Battery Degradation
In charging-control vehicles that regulate charging after reaching a certain level, charging and discharging cycles occur frequently. This places a significant burden on the battery. As a result, unless the battery has high durability, it becomes more prone to degradation, making it difficult to maintain optimal fuel efficiency performance.

For Standard Vehicles (with Charging Control Systems)



NEW A4 Series
Key Qualities of a Car Battery for Vehicles with Idling Stop Systems
High Capacity and Fast Rechargeability

Approximately
1.5x Longer
Lifespan

Challenges Faced by Vehicles with Idling Stop Systems
Car batteries are prone to frequent power shortages. The idling stop system repeatedly shuts off and restarts the engine. Since engine startup requires a large amount of electrical power, car batteries tend to experience constant undercharging, making them more susceptible to power deficiencies.

Frequent Charging and Discharging Causes Battery Degradation
To improve fuel efficiency, power is discharged each time the engine starts and recharged during driving. Since this cycle repeats frequently, it places a heavy burden on the car battery, making it more prone to wear and deterioration.

For Standard Vehicles (with Charging Control Systems) NEW C8 Series C8 Series — 5 Sizes, 10 Models

Model	Terminal Position	Voltage (V)	5-Hour Capacity (Ah)	Standard Charging Current (A)	Max External Dimensions (LxWxH) mm	Battery Weight (Approx. kg)	Handle	Vent Plug
N-60B19L/C8	L	12	36	3.0	187 × 127 × 203	9.5	Resin Handle	Flat
N-60B19R/C8	R	12	36	3.0	187 × 127 × 203	9.5	Resin Handle	Flat
N-80B24L/C8	L	12	46	4.0	238 × 129 × 203	12.5	Resin Handle	Flat
N-80B24R/C8	R	12	46	4.0	238 × 129 × 203	12.5	Resin Handle	Flat
N-100D23L/C8	L	12	58	6.0	232 × 173 × 204	16.0	Resin Handle	Flat
N-100D23R/C8	R	12	58	6.0	232 × 173 × 204	16.0	Resin Handle	Flat
N-125D26L/C8	L	12	66	6.0	260 × 173 × 204	19.0	Resin Handle	Flat
N-125D26R/C8	R	12	66	6.0	260 × 173 × 204	19.0	Resin Handle	Flat
N-145D31L/C8	L	12	77	7.0	306 × 173 × 204	22.0	Resin Handle	Flat
N-145D31R/C8	R	12	77	7.0	306 × 173 × 204	22.0	Resin Handle	Flat

For Idling Stop Vehicles NEW A4 Series A4 Series — 5 Sizes, 8 Models

Model	Terminal Position	Voltage (V)	5-Hour Capacity (Ah)	Standard Charging Current (A)	Max External Dimensions (LxWxH) mm	Battery Weight (Approx. kg)	Handle	Vent Plug
N-M65/A4	L	12	36	3.0	197 × 129 × 203	11.0	Resin Handle	Flat
N-M65R/A4	R	12	36	3.0	197 × 129 × 203	11.0	Resin Handle	Flat
N-N80/A4	L	12	43	4.0	238 × 129 × 203	12.5	Resin Handle	Flat
N-N80R/A4	R	12	43	4.0	238 × 129 × 203	12.5	Resin Handle	Flat
N-Q105/A4	L	12	56	6.0	232 × 173 × 204	17.5	Resin Handle	Flat
N-Q105R/A4	R	12	56	6.0	232 × 173 × 204	17.5	Resin Handle	Flat
N-S115/A4	L	12	66	6.0	260 × 173 × 204	19.5	Resin Handle	Flat
N-T115/A4	L	12	64	8.0	306 × 173 × 204	22.5	Resin Handle	Protruding

Distributor

MAYSHOWA
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