

CR series Cylindrical-type Lithium Batteries (Long Life Type)

Panasonic Energy Co.,Ltd.

CR series Cylindrical Lithium Batteries (Long Life Type)

Superior discharge characteristic and long-life

■ Value Proposition

- 1) long-term reliability suitable for outdoor devices which are difficult to maintain, such as battery replacement.
- 2) Suitable for various IoT devices by excellent high-rate discharge characteristics
- 3) Superior high temperature(85°C) characteristics which enable to control automotive equipment under severe conditions.

■ Panasonic Original Technique

- 1) Suppresses to increase internal resistance during long term usage and enables to use stably for a long time
- 2) Secures safety by built-in protection elements and enables to offer battery packs of multiple battery cells in parallel.

Benchmark

Item \ Product	Panasonic CR series Long life type	CR series standard type	ER lithium batteries
Expected life	+++ 10-15 years	+ -5 years	+++ 10-15 years
Operating temperature range	+++ Max 85°C	++ Max70°C	+++ Max85°C
Safety	++	++~+	+Risk of poisonous gas

Applications

- Smart meters
- Security devices
- Fire alarms
- Automotive electric components
- Medical devices
- etc.

Schedule

Mass
production

Before

CR series Cylindrical-type Lithium Batteries Standard type

Excellent high-rate characteristic
Available for consumer market



Unable to use for long term

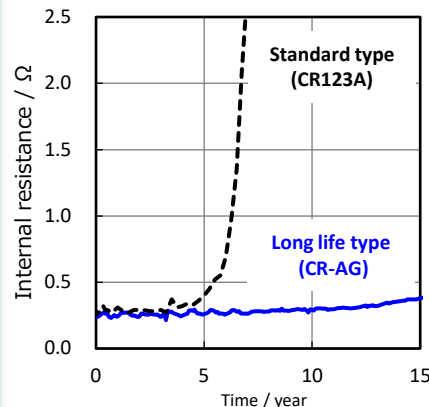
Insufficient environmental
resistance characteristic



After

CR series Cylindrical-type Lithium Batteries Long life type

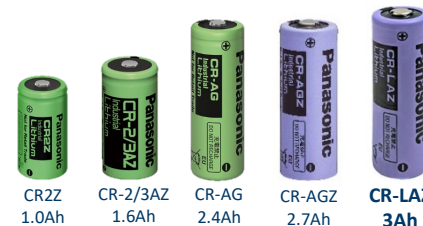
Suppresses to increase internal impedance during long term usage and achieves long life



Discharging Condition
Storage temperature: 20°C
Base load : 300kΩ(=10μA)

Reliability for 15 years

Under development
of high capacity model



Reliability for 10 years

Excellent discharge characteristic
at low temperatures!



Achieves excellent discharge characteristic and long term usage

Enables to use under severe conditions by excellent discharge characteristic
at low temperatures

Feature1 : Enables to use in a wide temperature range

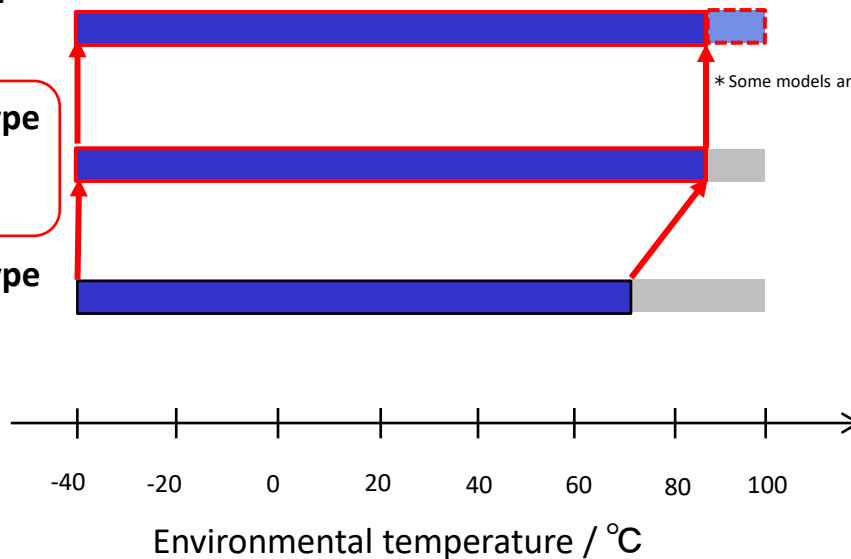
Enable to use not only for long term but also at high temperatures required for automotive applications



BR series Cylindrical type
lithium batteries

CR series Cylindrical type
lithium batteries
(Long life type)

CR series Cylindrical type
lithium batteries
(Standard type)

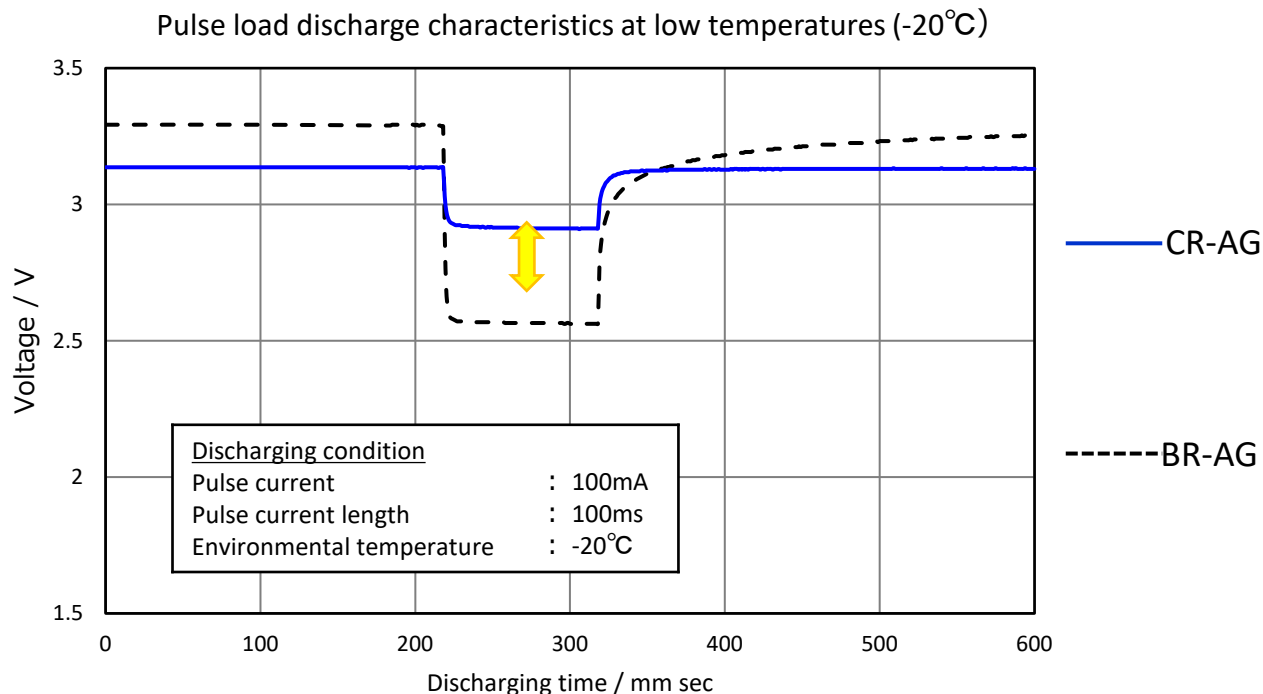


* Some models are up to 100°C



Feature2 : Excellent discharge characteristic at low temperatures

Suppresses voltage drop during discharging under low temperatures
and achieves stable discharge characteristics



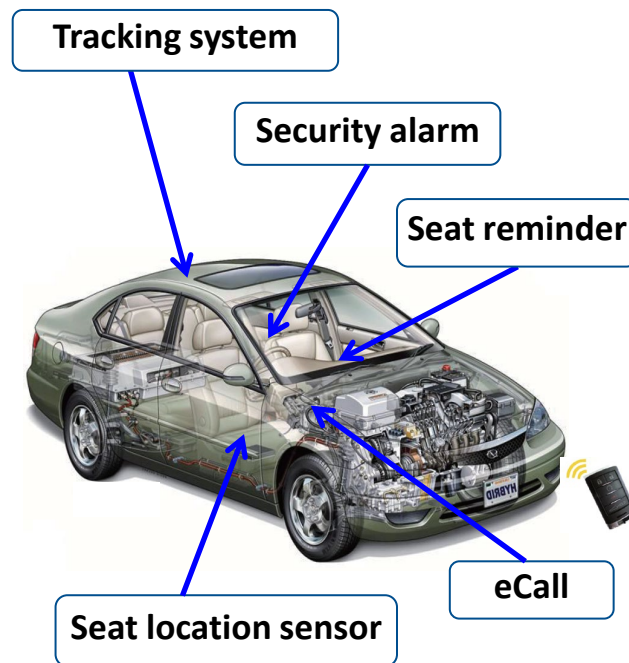
CR series Cylindrical Lithium Batteries Lineup

Line up

Series		Model	Nominal voltage (V)	Nominal capacity (mAh)	Continuous drain (mA)	Diameter (mm)	Width (mm)	Height (mm)	Mass about (g)	Operating temperature range (°C)
BR		BR-1/2AA	3	1000	2.5	14.5	-	25.5	8	-40 ~ 100
		BR-2/3A	3	1200	2.5	17.0	-	33.5	13	-40 ~ 85
		BR-2/3AG	3	1450	2.5	17.0	-	33.5	13	-40 ~ 85
		BR-A	3	1800	2.5	17.0	-	45.5	18	-40 ~ 85
		BR-AG	3	2200	2.5	17.0	-	45.5	18	-40 ~ 85
		BR-C	3	5000	5.0	26.0	-	50.5	41	-40 ~ 85
CR	Long life type	CR-2/3AZ	3	1600	2.5	17.0	-	33.5	16	-40 ~ 85
		CR-AAK	3	1650	100	14.5	-	50.5	18	-40 ~ 85
		CR-AAU	3	1800	2.5	14.5	-	50.5	18	-40 ~ 85
		CR-AG	3	2400	2.5	17.0	-	45.5	22	-40 ~ 85
		CR-AGZ	3	2700	2.5	17.0	-	45.5	23	-40 ~ 85
		CR2U	3	1000	2.5	15.6	-	27.0	11	-40 ~ 85
		CR2Z	3	1000	2.5	15.6	-	27.0	11	-40 ~ 85
		CR-2/3AU	3	1600	2.5	17.0	-	33.5	16	-40 ~ 85
	Standard type	2CR5	6	1550	20	34.0	17.0	45.0	38	-40 ~ 70
		CR-P2	6	1550	20	35.0	19.5	36.0	37	-40 ~ 70
		CR123A	3	1550	20	17.0	-	34.5	16	-40 ~ 70
		CR2	3	850	20	15.6	-	27.0	11	-40 ~ 70

NEW

Applications

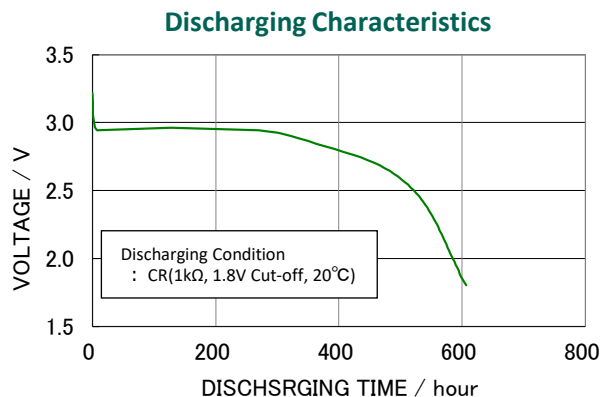


*The contents of this page are valid as of August 2022 and are not intended to make or imply any guarantee and warranty.

Cylindrical type batteries CR-2/3AU

Feature

- Enables to use for automotive and outdoor devices by excellent high temperature(85°C) characteristics, high rate discharge characteristics at low temperatures
- Achieve reliability for long term used outdoor installation device and applications are difficult to replace batteries
- Suitable for wireless communication devices by excellent high-rate discharge characteristics



Specification

NEW

Model		CR-2/3AU
Nominal voltage		3V
Nominal capacity		1600mAh
Continuous drain		2.5mA
Maximum Continuous Discharging Current		3A
Size*1	Diameter(Max)	17.0mm
	Height (Max)	33.5mm
Mass*1		Approx.16.0g
Operating temperature range		-40°C~+85°C

*1: Without tabs

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Please feel free to contact us

Panasonic Energy Lithium Batteries HP

<https://industry.panasonic.eu/products/energy-building/batteries/battery-cells/primary-batteries/lithium-batteries>

Panasonic ENERGY

Energy that changes the future.