



# eneloop

Ready to use Rechargeable Battery

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## What is eneloop?

CHANGE THE FUTURE OF OUR ENVIRONMENT  
BY CHANGING YOUR BATTERY

How many batteries are we using and throwing away every year....

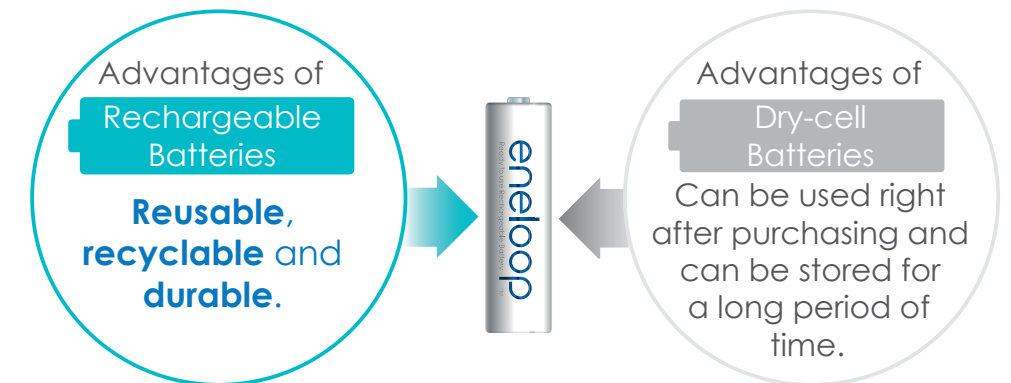
What can we do to save our environment....

What is the idealistic Eco-friendly battery for the future....

This is PANASONIC's answer

**eneloop**

Represent a new life style.



It is a new battery that can be used as easily as a dry-cell battery, and reused simply by recharging it. eneloop is the new battery that might just change your lifestyle.

eneloop The next generation of environmentally friendly batteries favored by over 60 countries\* around the world proposes a new lifestyle shift from 'Disposable' to 'Reusable'. Change the future of our environment by changing your battery. \*as of Aug 2012

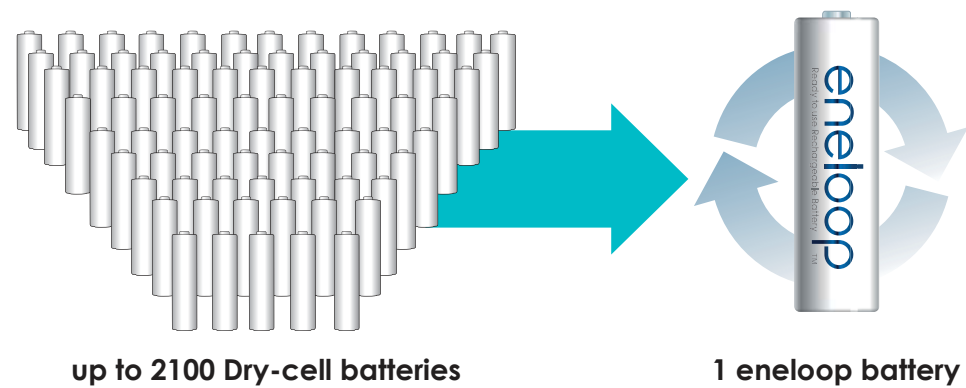
The advantages of the rechargeable battery and the dry-cell battery are combined into one

# Benefits

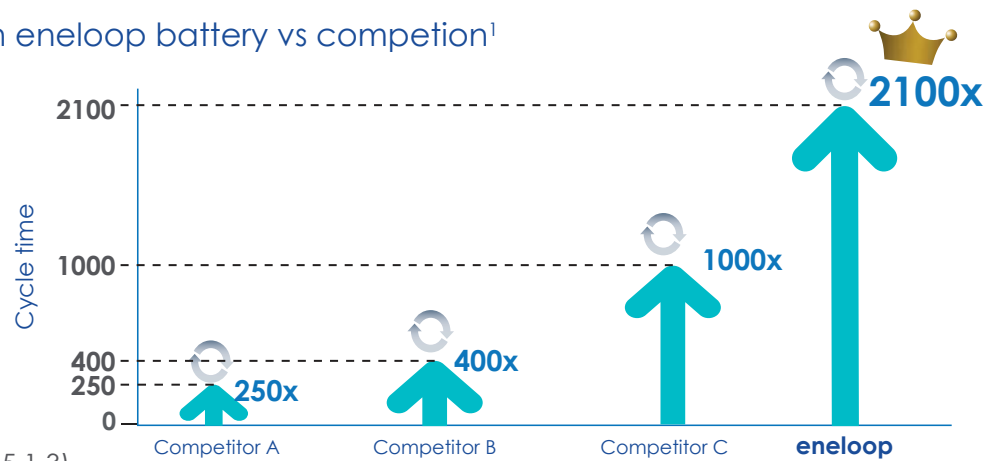
## Economic benefits

While the initial cost of rechargeable batteries is high, your investment in eneloop will be recovered after only a few recharging cycles and the long term savings are substantial. eneloop batteries can be recharged up to 2100 times.

### Comparison eneloop vs dry-cell batteries



### Comparison eneloop battery vs competition<sup>1</sup>



<sup>1</sup>IEC61951-2(7.5.1.3)

eneloop can be recharged up to 2100 times, which represents a huge economic advantage

## Ready to use

eneloop batteries are delivered pre-charged and are ready for immediate use upon purchase. There is no need to charge before use.



## Low self-discharge

While other non ready to use rechargeable batteries lose their charge over time, PANASONIC's eneloop technology enables these batteries to keep 70% of their charge up to 5 years.

eneloop is ready-to-use even after 5 years\* of storage

\*Panasonic internal IEC (61951-2(7.3.2)) testing. Varies according to conditions of use.

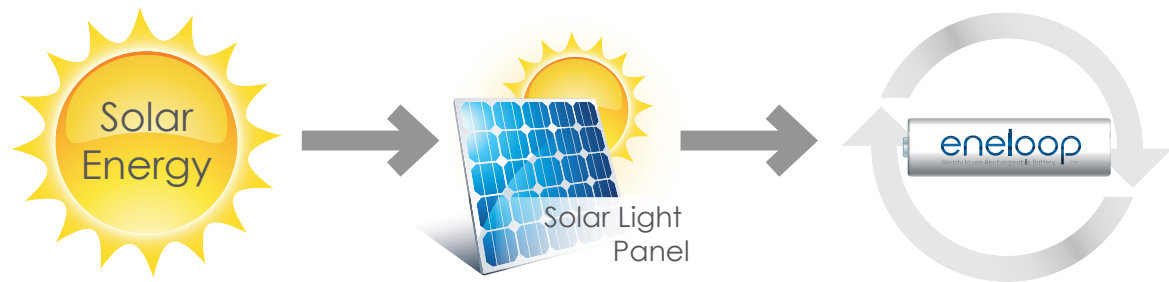


## Recyclable and Environmentally Friendly

It is estimated that over 40 billion dry-cells were disposed worldwide last year. eneloop rechargeable batteries represent renewable energy and can be charged up to 2100\* times! Using eneloop rechargeable batteries will help in the reduction of disposable waste and thus benefit the environment. Let's keep batteries out of our landfill.

\* 2100 cycle times is available for eneloop AA & AAA batteries

### Clean Energy Loop



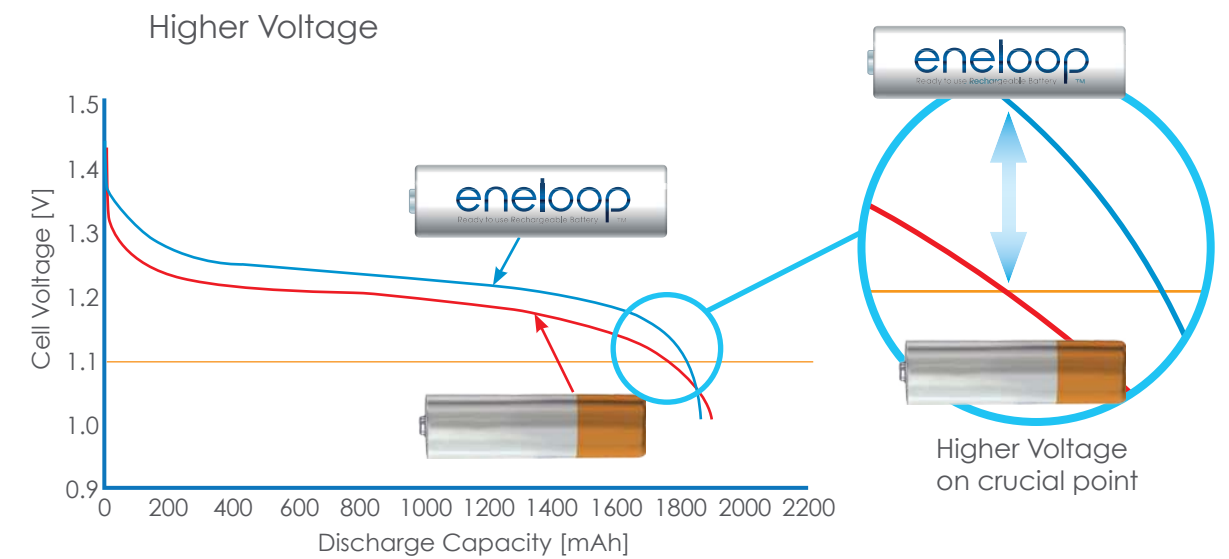
Through the Green Power Certification System, eneloop is pre-charged by "green power" from photovoltaic generation



eneloop has a clean energy loop

## High power battery

One of the main features of eneloop is the higher voltage level. Many applications switch off or show the low battery signal if the voltage is lower than 1,1 Volt. A traditional Ni-MH battery will lose its voltage constantly and runs under this critical level very soon. eneloop however will keep the voltage level over 1,1 Volt for a long time, and only just before becoming empty will fall under that limit. That's one of the reasons why you can take more photos with eneloop.



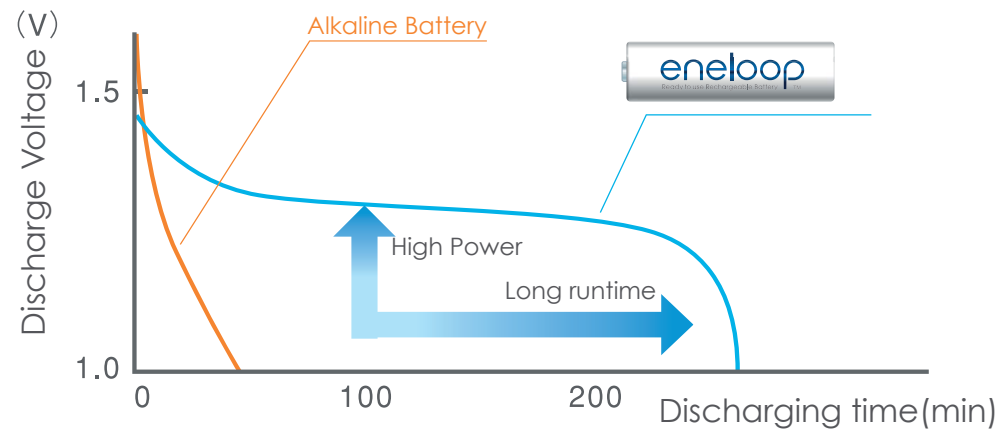
eneloop has higher usable capacity than standard batteries



## Low temperature operations

eneloop has superior performance at 0°C and can even be used at temperature as low as -20°C.

Discharging Characteristics at 0°C (at 500mA continuous discharge)



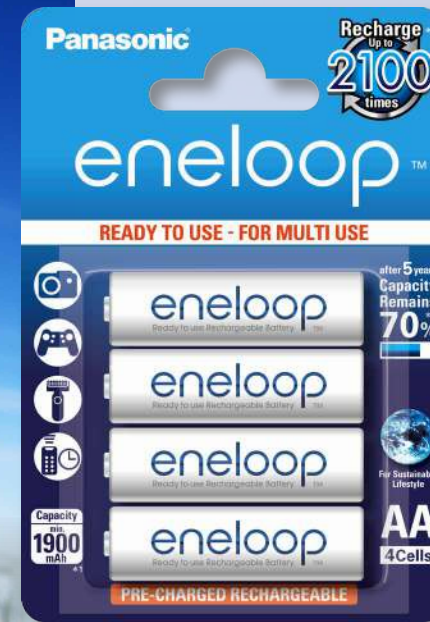
eneloop is able to maintain a low self-discharge rate even in temperatures as low as -20°C. Operation time will be shorter than that of room temperature.



**Superior discharge at low temperature!**

**Panasonic**

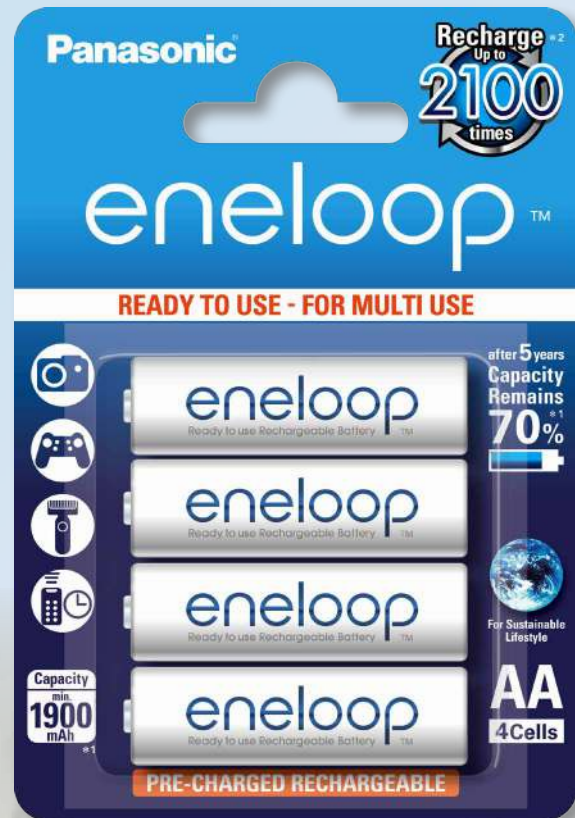
## eneloop range



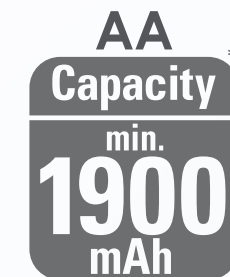
eneloop



eneloop

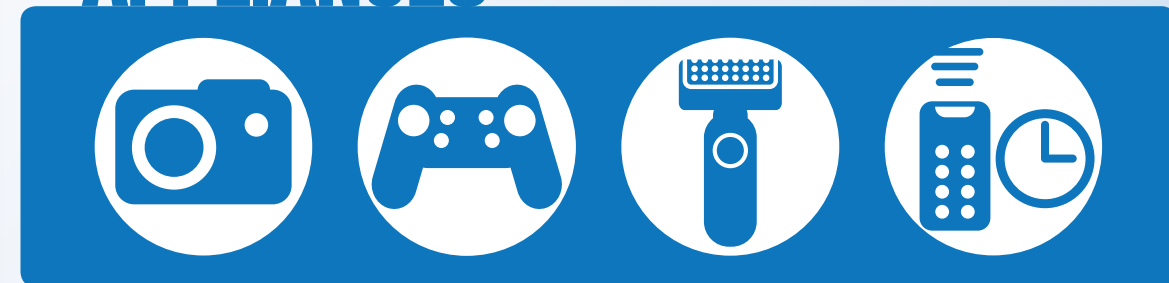


eneloop is a long-life, pre-charged, energy and money saving, recyclable rechargeable battery which can be charged and discharged now even up to 2100 times.



\*1Panasonic internal IEC61951-2(7.3.2) testing (varies according to conditions of use)  
\*2Panasonic internal testing IEC61951-2 (7.5.1.3)

## APPLIANCES



Name	Size	Min. Capacity (mAh)	CSU EAN	Global Code	Batteries/	Blisters/	Cartons/
					CSU	Carton	Outer Carton
eneloop	AA	1900	5410853052623	BK-3MCCE/2BE	2	8	12
eneloop	AA	1900	5410853052630	BK-3MCCE/4BE	4	10	12
eneloop	AA	1900	5410853052647	BK-3MCCE/8BE	8	12	N/A
eneloop	AA	1900	5410853052654	BK-3MCCEC4BE	4 + case	8	12
eneloop	AAA	750	5410853052678	BK-4MCCE/2BE	2	10	12
eneloop	AAA	750	5410853052685	BK-4MCCE/4BE	4	12	12
eneloop	AAA	750	5410853052692	BK-4MCCE/8BE	8	12	N/A
eneloop	AAA	750	5410853052708	BK-4MCCEC4BE	4 + case	8	12
eneloop	mix	1900/750	5410853052715	BK-KJMCCE44E	4AA+4AAA	12	N/A
eneloop	AA	1900	5410853052616	BK-3MCCE/BF1	1	500	N/A
eneloop	AAA	750	5410853052661	BK-4MCCE/BF1	1	500	N/A





eneloop pro



**Panasonic**

eneloop pro™

eneloop pro batteries are the perfect choice for powering high current consuming devices such as photo flash lights, wireless keyboard & mouse, game controllers, radio controlled toys and a range of household devices. They can all realize extended performance when powered by eneloop pro batteries.

AA  
Capacity\*1  
min.  
**2450**  
mAh

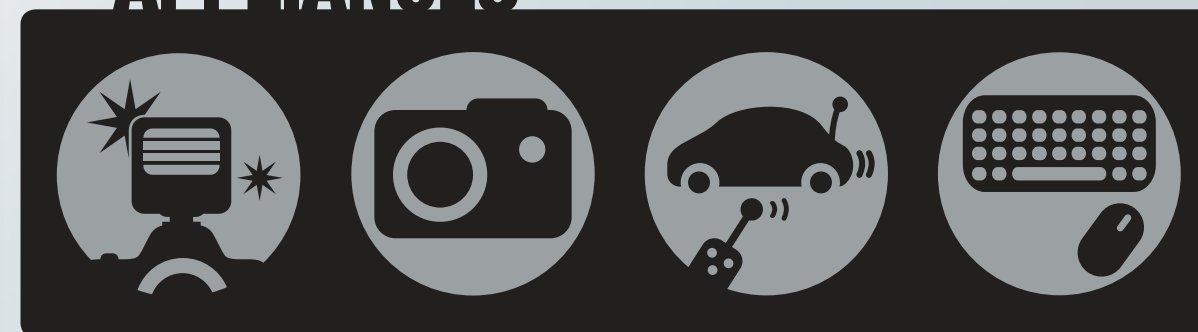
AAA  
Capacity\*1  
min.  
**900**  
mAh

Recharge\*2  
Up to  
**500**  
times

after 1 year  
Capacity  
Remains  
**85%**  
\*1

\*1Panasonic internal IEC61951-2(7.3.2) testing (varies according to conditions of use)  
\*2Panasonic internal testing IEC61951-2 (7.5.1.3)

## APPLIANCES



Name	Size	Min. Capacity (mAh)	CSU EAN	Global Code	Batteries/	Blisters/	Cartons/
					CSU	Carton	Outer Carton
eneloop pro	AA	2450	5410853052579	BK-3HCCE/4BE	4	10	12
eneloop pro	AAA	900	5410853052609	BK-4HCCE/4BE	4	12	12
eneloop pro	AA	2450	5410853052562	BK-3HCCE/BF1	1	500	N/A
eneloop pro	AAA	900	5410853052593	BK-4HCCE/BF1	1	500	N/A

eneloop

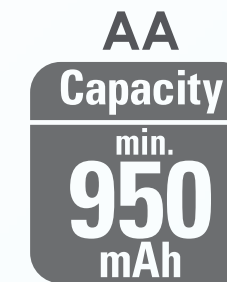


eneloop lite



eneloop lite™

- **Ideal for low-to-medium power consumption devices**, such as DECT phones and remote controls.
- **Rechargeable up to 3000 times**: eneloop lite is rechargeable up to 3000 times, which makes it even more economically and environment-friendly.



\*1Panasonic internal IEC61951-2(7.3.2) testing (varies according to conditions of use)  
\*2Panasonic internal testing IEC61951-2 (7.5.1.3)

## APPLIANCES



Name	Size	Min. Capacity (mAh)	CSU EAN	Global code	Batteries/	Blisters/	Cartons/
					CSU	Carton	Outer Carton
eneloop lite	AA	950	5410853052739	BK-3LCCE/2BE	2	8	12
eneloop lite	AAA	550	5410853052753	BK-4LCCE/2BE	2	10	12
eneloop lite	AAA	550	5410853052760	BK-4LCCE/4BE	4	12	12
eneloop lite	AA	950	5410853052722	BK-3LCCE/BF1	1	500	N/A
eneloop lite	AAA	550	5410853052746	BK-4LCCE/BF1	1	500	N/A




























Panasonic

eneloop


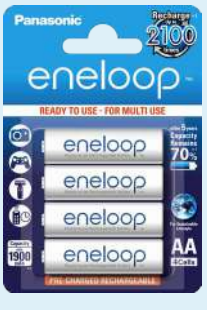




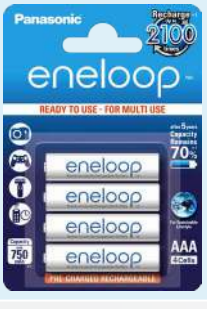

## Rechargeable battery Information Chart

	eneloop BK3MCCE				eneloop pro BK3HCCE				eneloop lite BK3LCCE			
Capacity (AA) *1	min. 1900 mAh up to 2000 mAh				min. 2450 mAh up to 2550 mAh				min. 950 mAh up to 1000 mAh			
Recharge *2	up to 2100 times				up to 500 times				up to 3000 times			
Type	Low Self-Discharge for Multi-Use				High Capacity for High Drain Devices				Basic Rechargeable for Daily Use			
Recommended Equipment	 Digital Cameras  Beauty & Health  Games & Toys  Torch Lights  Daily Use				 DSLR Flash  Radio Control Cars  Games & Toys  Torch Lights  Wireless Devices				 Games & Toys  Torch Lights  Toys  DECT Phones  Daily Use			
Usage time (AA)	 DSLR Flash  Radio Control Cars  Digital Cameras  Beauty & Health  Torch Lights  Toys  Games & Toys  Wireless Devices  DECT Phones  Daily Use											
eneloop	Approx. 1.5 hours	Approx. 2 hours	Approx. 2 hours	Approx. 3 hours	Approx. 5 hours	Approx. 6 hours	Approx. 20 hours	Approx. 60 hours	Approx. 150 hours (Standby Mode)	Approx. 2 years		
eneloop pro	Approx. 1.8 hours	Approx. 3 hours	Approx. 3 hours	Approx. 3.3 hours	Approx. 6 hours	Approx. 8 hours	Approx. 25 hours	Approx. 80 hours	Approx. 170 hours (Standby Mode)	Approx. 2 years		
eneloop lite	Approx. 0.7 hours	Approx. 1 hours	Approx. 1 hour	Approx. 1.5 hours	Approx. 2.5 hours	Approx. 3 hours	Approx. 10 hours	Approx. 30 hours	Approx. 70 hours (Standby Mode)	Approx. 1 year		
Alkaline battery	Approx. 1 hours	Approx. 1 hours	Approx. 30 minutes	Approx. 1.5 hours	Approx. 4 hours	Approx. 8 hours	Approx. 25 hours	Approx. 25 hours	Approx. 240 hours (Standby Mode)	Approx. 2 years		

Battery runtime beginning from charged state. It varies depending on conditions of use, model used, ambient temperature & conditions of equipment.

## Cross reference

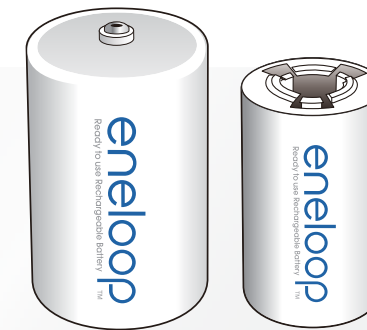
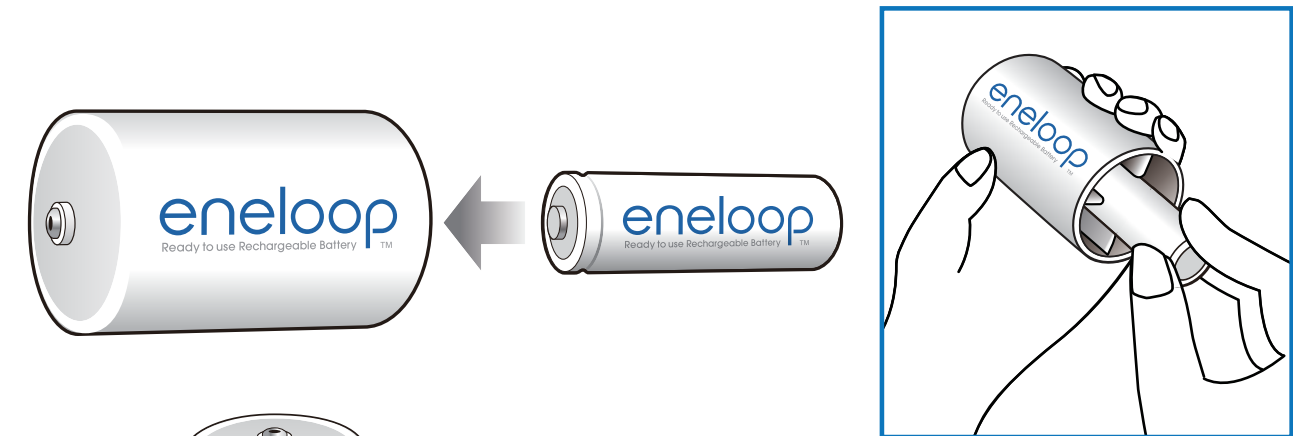
	AA		
	Low	Middle	High
<b>Blister</b>			
<b>subbrand</b>	eneloop lite	eneloop	eneloop Pro
<b>min Capacity *1</b>	950 mAh	1900 mAh	2450 mAh
<b>cycle life *2</b>	3000 times	2100 times	500 times
<b>Low self discharge *1</b>	up to 70% after 5 years	up to 70% after 5 years	up to 85% after 1 year

	AAA		
	Low	Middle	High
<b>Blister</b>			
<b>subbrand</b>	eneloop lite	eneloop	eneloop Pro
<b>min Capacity *1</b>	550 mAh	750 mAh	900 mAh
<b>cycle life *2</b>	3000 times	2100 times	500 times
<b>Low self discharge *1</b>	up to 70% after 5 years	up to 70% after 5 years	up to 85% after 1 year

\*1Panasonic internal IEC61951-2(7.3.2) testing (varies according to conditions of use)  
 \*2Panasonic internal testing IEC61951-2 (7.5.1.3)

## C & D adaptor - Spacers

Even though 85% of all disposable batteries sold are either AA or AAA size, there are still some applications, which require other battery sizes. The two next common sizes are C and D. Typical examples, where these sizes are required are big torches or portable radios. For these cases we offer simple but smart plastic adaptors, which transform an AA-size eneloop into a C- or D-size battery.



### HOW-TO

Plug the eneloop into the adaptor and you can use it in your equipment. Of course the adaptors only adapt the mechanical dimensions of the eneloop (length and diameter) and obviously not its electrical characteristics. The voltage and the capacity remain unchanged to the eneloop AA specification.

Name	Size	CSU EAN	Global Code	Batteries/	Blisters/	Cartons/
				Blister	Carton	Bundle
Spacer	D	5410853052838	BQ-BS1E/2E	2	TBC	TBC
Spacer	C	5410853052845	BQ-BS2E/2E	2	TBC	TBC



## Chargers



### Basic charger – BQ CC18 – For occasional users

- Can charge AA / AAA 4 cells
- Can be used all over the world(100-240V)
- Timer Control

Item	Spec
Input	AC100-240V 50-60Hz
Input part Structure	Plug-in and attachment plug
Charging output	DC 2.4V AA 250mA x 2 / AAA 120mA x 2
Charging control	Timer cut
Indicator	LED x 2 Charging: ON, Fully charged: OFF
Charger battery	AA x 2, 4 / AAA x 2, 4 cells
Charging time	AA: Approx 10 hours AAA: Approx 8 hours
Charger size (cm) (W x H x D)	6,5 x 10,5 x 7,5
Weight	87 g
Case color	white



### Advanced charger – BQ CC17 – For frequent users

- Can charge AA / AAA 4 cells
- Can be used all over the world(100-240V)
- Individual management/-ΔV Control

Item	Spec
Input	AC100-240V 50-60Hz
Input part Structure	Plug-in and attachment plug
Charging output	DC 1.2V AA 300mA x 4 / AAA 150mA x 4
Charging control	TA /Timer
Indicator	LED x 4 Charging: ON, Fully charged: OFF
Charger battery	AA x 1, 2, 3, 4 / AAA x 1, 2, 3, 4 cells
Charging time	AA: Approx 7hr [2,000mAh] AAA: Approx 6hr [800mAh]
Charger size (cm) (W x H x D)	6,5 x 10,5 x 7,5
Weight	91 g
Case color	white



### Smart & Quick charger – BQ CC16 – For heavy users

- Rapid Charge (AA 2cell: 2hours/4cells: 4hours)
- Individual management/Charge Control(Smart Charge<sup>1</sup>)
- Can be used all over the world(100-240V)

Item	Spec
Input	AC100-240V 50-60Hz
Input part Structure	Plug in and attachment plug
Charging output	DC1.5 V 550mA×4/275mA×4
Charging control	Smart Charge <sup>1</sup> /-ΔV /Timer
Indicator	LED x 2 Charging: ON, Full charged: OFF
Charger battery	AA x 1, 2, 3, 4 / AAA x 1, 2, 3, 4 cells
Charging time	AA: Approx 2hours/4hours [2,000mAh] AAA: Approx 1.5hours/3hours [800mAh]
Charger size (cm) (W x H x D)	6,5 x 10,5 x 7,5
Weight	97 g
Case color	white

<sup>1</sup>This charger has "Smart Charge" function which checks voltage and temperature of battery automatically. Thanks to Smart Charge function, it saves time of charging and loss of energy & money.

Rank	Name	Plug	Battery	Size	Min. Capacity (mAh)	CSU EAN	Global Code	Batteries/	Blisters/
								Charger	Carton
High	CC16	EU	eneloop pro	AA	2 450	5410853052265	K-KJ16HCC40E	4	8
High	CC16	EU	eneloop	AA	1 900	5410853052272	K-KJ16MCC40E	4	8
High	CC16	UK	eneloop	AA	1 900	5410853052289	K-KJ16MCC40U	4	8
Middle	CC17	EU	eneloop	AA	1 900	5410853052296	K-KJ17MCC40E	4	8
Low	CC18	EU	N/A	N/A	N/A	5410853052302	BQ-CC18H	N/A	8
Low	CC18	EU	eneloop	AA	1 900	5410853052319	K-KJ18MCC40E	4	8
Low	CC18	EU	eneloop	AAA	750	5410853052326	K-KJ18MCC04E	4	8
Low	CC18	UK	eneloop	AA	1 900	5410853052333	K-KJ18MCC40U	4	8

## Charger Information Chart

**eneloop**  
Ready to use Rechargeable Battery™

### Smart & Quick CHARGER:

BQ-CC16  
K-KJ16MCC



### Advanced CHARGER:




BQ-CC17  
K-KJ17MCC



### Basic CHARGER:

BQ-CC18  
K-KJ18MCC



Battery Type		Ni-MH		Ni-MH		Ni-MH	
Charging time		1 pc./ 2 pcs.	3 pcs./ 4 pcs.	1 pc./ 2 pcs. / 3 pcs./ 4 pcs.		2 pcs.	4 pcs.
 eneloop	AA AAA	2 hrs. 1.5 hrs.	4 hrs. 3 hrs.	7 hrs. 6 hrs.		10 hrs. 8.5 hrs.	10 hrs. 8.5 hrs.
 eneloop pro	AA AAA	2.5 hrs. 2 hrs.	5 hrs. 4 hrs.	9 hrs. 7 hrs.		12 hrs. 10 hrs.	12 hrs. 10 hrs.
 eneloop lite	AA AAA	1 hr. 1.25 hrs.	2 hrs. 2.5 hrs.	3.5 hrs. 5 hrs.		5 hrs. 7 hrs.	5 hrs. 7 hrs.
Specification							
Input		AC100-240V 50-60Hz					
Charging output		DC1.5 V AA 550mA x4 / AAA 275mA x4		DC 1.5 V AA 300mA x4 / AAA 150mA x4		DC 1.5 V AA 200mA x2 / AAA 100mA x2	
Charging control		Smart Charge / -ΔV / Timer		ΔV / Timer		Timer	
Indicator		LED x4 Charging: ON, Full charged: OFF		LED x4 Charging: ON, Full charged: OFF		LED x2	
Charger battery		AA x1,2,3,4 / AAA x1,2,3,4 cells		AA x1,2,3,4 / AAA x1,2,3,4 cells		AA x2,4 / AAA x2,4 cells	
Dimensions (approx.)		105(L) x 65(W) x 27(H) mm					
Weight (approx.)		97 g		91 g		87 g	



## Other solutions

### High Capacity

- With its high capacity, our high capacity rechargeable battery is the ideal rechargeable battery for high drain appliances
- Excellent price versus quality ratio

## APPLIANCES



Capacity  
min. \*1 AA  
**2500**  
mAh

Capacity  
min. \*1 AAA  
**930**  
mAh



\*Panasonic internal IEC61951-2(7.3.2) testing (varies according to conditions of use)

Name	Size	Min. Capacity (mAh)	CSU EAN	Global code	Batteries/	Blisters/	Cartons/
					CSU	Carton	Bundle
High Capacity	AA	2500	5410853052791	BK-3HGAE/2BE	2	12	5
High Capacity	AA	2500	5410853052807	BK-3HGAE/4BE	4	12	5
High Capacity	AAA	930	5410853052821	BK-4HGAE/2BE	2	12	5
High Capacity	AA	2500	5410853052777	BK-3HGAE/BF1	1	500	N/A
High Capacity	AAA	930	5410853052814	BK-4HGAE/BF1	1	500	N/A

## Technical Specifications

### eneloop

Model N°	Size	Technology	Voltage (V)	capacity (mAh) <sup>(1)</sup>	Height (mm)	Diameter (mm)	Weight (g)
BK-3MCCE	AA	Rechargeable Ni-MH Battery	1,2 V	1900	50,4	14,35	27
BK-4MCCE	AAA	Rechargeable Ni-MH Battery	1,2 V	750	44,5	10,5	13

### eneloop pro

Model N°	Size	Technology	Voltage (V)	capacity (mAh) <sup>(1)</sup>	Height (mm)	Diameter (mm)	Weight (g)
BK-3HCCE	AA	Rechargeable Ni-MH Battery	1,2 V	2450	50,4	14,5	30
BK-4HCCE	AAA	Rechargeable Ni-MH Battery	1,2 V	900	44,5	10,5	13

### eneloop lite

Model N°	Size	Technology	Voltage (V)	capacity (mAh) <sup>(1)</sup>	Height (mm)	Diameter (mm)	Weight (g)
BK-3LCCE	AA	Rechargeable Ni-MH Battery	1,2 V	950	50,4	14,2	19
BK-4LCCE	AAA	Rechargeable Ni-MH Battery	1,2 V	550	44,5	10,5	11

### Spacers

Model N°	Size	Height (mm)	Diameter (mm)	Weight (g)
Spacer C	C	48,1	25,7	29
Spacer D	D	60,6	32,5	29

### High Capacity

Model N°	Size	Technology	Voltage (V)	capacity (mAh) <sup>(1)</sup>	Height (mm)	Diameter (mm)	Weight (g)
BK-3HGAE	AA	Rechargeable Ni-MH Battery	1,2 V	2500	50,4	14,5	30
BK-4HGAE	AAA	Rechargeable Ni-MH Battery	1,2 V	930	44,5	10,5	13

<sup>(1)</sup> min capacity

# Panasonic Energy Europe

## PANASONIC GROUP WORLDWIDE

### Panasonic Energy Europe, your professional battery partner

- Consumer understanding
- Expert in category management
- Top class supply chain management
- 100% dedicated Sales & Marketing organization covering total Europe

### Worldwide leading enterprise

Panasonic Corporation Inc. is one of the largest electronic product manufacturers in the world. It manufactures and markets a wide range of products under the Panasonic brand to enhance and enrich lifestyles all around the globe.

Company Name:	Panasonic Corporation Inc.
Head Office Location:	Osaka - Japan
President:	Kazuhiro Tsuga
Foundation:	March, 1918 (incorporated in December, 1935)
Net Sales <sup>(1)</sup> :	7,303.0 billion yen
Number of employees <sup>(1)</sup> :	293,742
Number of Consolidated Companies <sup>(1)</sup> :	538 (including parent company)

<sup>(1)</sup> as of March 31, 2013

## PANASONIC BATTERIES WORLDWIDE

### Production and capacity advantages

- **INTEGRATION**  
R&D, product and production technology
- **EFFICIENCY**  
Highly efficient and flexible manufacturer with short time to market
- **COVERAGE**  
38 factories covering all regions
- **EXPERIENCE**  
More than 80 years in battery manufacturing (since 1931)

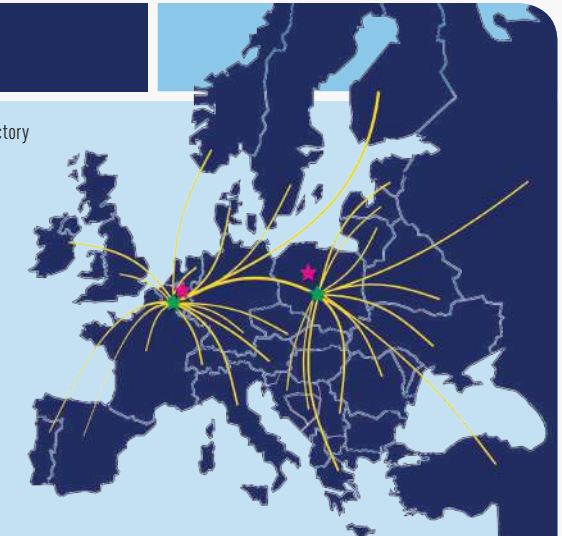


## PANASONIC BATTERIES IN EUROPE

### An organization 100% dedicated to batteries

- **BUSINESS**  
A battery dedicated company
- **INTEGRATION**  
Unified production, logistics and sales support
- **LOCAL MANUFACTURING**  
Two European production sites:  
Local flexibility and short delivery times  
In line with EU quality and environmental standards
- **DISTRIBUTION**  
European distribution centre in Belgium  
Hub for Eastern Europe in Poland

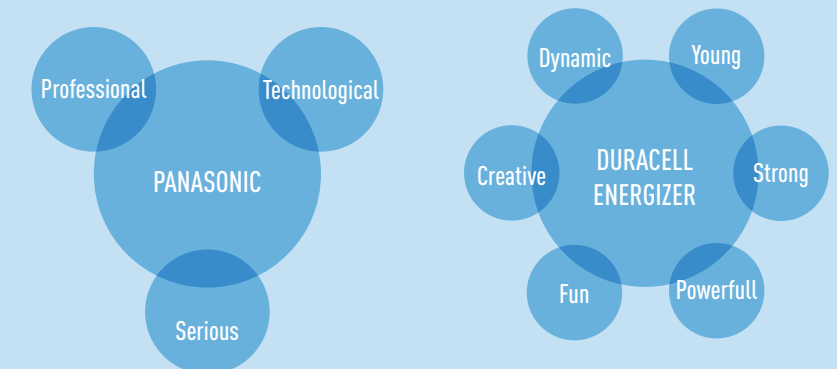
- ★ Panasonic Battery Factory
- ★ Panasonic European Distribution Centre



### A powerful brand

- **HIGH UMBRELLA BRAND AWARENESS** <sup>(1)</sup>  
65th position in the "Best Global Brands 2012"
- **DIFFERENTIATED BRAND POSITIONING VS. OTHER BATTERY SUPPLIERS** <sup>(2)</sup>  
Panasonic offers a real alternative in the battery category

<sup>(1)</sup> www.interbrand.com  
<sup>(2)</sup> PECE consumer/shopper researches



### Also interested in other Panasonic solutions?

Please see our Panasonic Battery Catalogue 2013

Go to:

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