

2023/11/30

Explanation about the European Battery Regulation

**Energy Device Business Division
Panasonic Energy Corporation**

Battery regulation and CE marking

◆ Battery regulation(2023/1542) was entered into force.

The Battery Directive (2006/66/EC) has been in existence for the purpose of reducing the environmental impact of batteries (limitation of hazardous substances, recycling, etc.), However the Battery Regulation (2023/EC) is included as a framework to regulate the entire life cycle of batteries. It was entered into force on Aug. 17th, 2023.

Battery is required to comply with limitation of hazardous substances, CFP, recycled material content, performance and durability, safety, and labeling, etc.

◆ CE marking

The Battery Directive did not require CE marking, However the Battery Regulation requires CE marking on products as evidence that the product complies with the regulations. CE marking will be required from Aug. 18, 2024.



Scope and requirements for CE marking

◆ Scope of this regulation

ALL Battery (Article1 Cl.3)

Battery category : Portable (include General purpose) , SLI, LMT, EV, Industrial

* Exception : Military, Space use

* Battery as part (ex: LIB cell) that is not sold directly to users is not subject to CE marking.

CE marking is required when the product is ready for use (ex: LIB pack). (Article1 Cl.4)

◆ Requirements for CE marking

Compliance is checked by the following articles.(Article 17 Cl.1,2)

Article 6 Restrictions on substances

Article 7 Carbon footprint of electric vehicle batteries, rechargeable industrial batteries and LMT batteries

Article 8 Recycled content in industrial batteries, electric vehicle batteries, LMT batteries and SLI batteries

Article 9 Performance and durability requirements for portable batteries of general use

Article 10 Performance and durability requirements for rechargeable industrial batteries, LMT batteries and electric vehicle batteries

Article 12 Safety of stationary battery energy storage systems

Article 13 Labelling and marking of batteries

Article 14 Information on the state of health and expected lifetime of batteries

Detailed information on battery categories, compliance items, and timing can be found on the next page.

Equipments for CE marking of the Battery Regulation and implementation date

*entry into force : 17 Aug. 2023

In the table below, XX/8~ indicates after August 18, XX, XX/2~ indicates after February 18, XX, and 20XX~ indicates after January 1, 20XX, and the regulations apply at the time of p@lace on the markte to the EU. This is a simplified summary based on our interpretation. **Please check the original text of the law.**

Article	Contents	Industrial*1	EV*2	LMT*3	Portbale
6	Restrictions on substances	2024/8~			
7	CFP 1) CFP value 2) Classification 3) Min. limit of CFP	1) 2026/2~ 2) 2027/8~ 3) 2029/2~	1) 2025/2~ 2) 2026/8~ 3) 2028/2~	1) 2028/8~ 2) 2030/2~ 3) 2031/8~	-
8	Recycle material in cell 1)Content rate 2)Min. limit of content rate	1) 2028/8~ 2) 2031/1~	1) 2028/8~ 2) 2031/1~	1) 2033/8~ 2) 2036/8~	-
9 10	Performance and durability 1) documentation 2) Mi. Limit of each value		1) 2024/8~ 2) 2027/8~		2028/8~ (only general purpose)
12	Safety of ssationary BESS	2024/8~		-	
13	Marking 1) Crossed out wheelie bin symbol 2) general infomation 3) QR code		1)2025/8~ 2)2026/8~ 3)2027/2~		
14	Information on the state of health and expected lifetime of batteries		2024/8~		-

*1 Article 7, 8, 9, 10, 14 are applied only exceed 2kWh.

*2 EV: Electric Vehicle

*3 LMT: Light Means of Transport

Battery category in battery regulation (Outline)



battery that is specifically designed to supply electric power for starting, lighting, or ignition and that can also be used for auxiliary or backup purposes in vehicles, other means of transport or machinery



battery that is specifically designed to provide electric power for traction in hybrid or electric vehicles of category L as provided for in Regulation (EU) No 168/2013, that weighs more than 25 kg, or a battery that is specifically designed to provide electric power for traction in hybrid or electric vehicles of categories M, N or O as provided for in Regulation (EU) 2018/858



battery that is sealed, weighs 25 kg or less and is specifically designed to provide electric power for the traction of wheeled vehicles that can be powered by an electric motor alone or by a combination of motor and human power, including type-approved vehicles of category L within the meaning of Regulation (EU) No 168/2013 of the European Parliament and of the Council (43), and that is not an electric vehicle battery



battery that is specifically designed for industrial uses, intended for industrial uses after having been subject to preparation for repurposing or repurposing, or any other battery that weighs more than 5 kg and that is neither an electric vehicle battery, an LMT battery, nor an SLI battery;



battery that is sealed, weighs 5 kg or less, is not designed specifically for industrial use and is neither an electric vehicle battery, an LMT battery, nor an SLI battery

Example of products that require CE marking

CE marking is required on battery

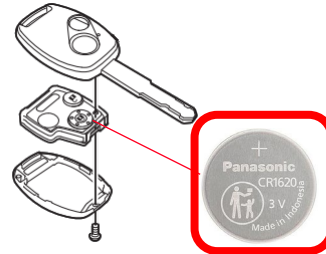
- Batteries are ready for use by end user.



Stand alone



Include with equipment



Build in equipment (User replaceable)



Replacement battery



non-user replaceable battery in equipment

*If the end user can remove the battery at the time of disposal

CE marking is required on Equipment

- Equipment that is not intended for battery replacement by the end user shall affix the CE marking on the equipment.

*From February 2027 (Article 96), portable batteries, etc. shall be user replaceable (Article 11).

If the structure of equipment is such that the battery can be replaced, CE marking shall be necessary to the battery.



Built-in



Built-in



Equipment not intended for battery replacement by the user

* If the CE marking cannot be displayed, such as small batteries/products, it will be necessary to display it on the packaging or manual.
CE marking must be displayed at a minimum height of 5 mm (ANNEX II, Section 3 of Regulation (EC) No 765/2008)

The method of Conformity assessment

Manufacturer shall choose one of the method as the conformity assessment procedure for CE marking.(17条1,2)

manufactured
in series

Module A... Internal production control

The manufacturer himself ensures the conformity of the products to the requirements

manufactured
in series

Module D1

... Quality assurance of the production process

The manufacturer operates a quality assurance system in order to ensure conformity to requirements . The notified body assesses the quality system.

Not manufactured
in series

Module G

... Conformity based on unit verification

The manufacturer ensures compliance of products to the requirements. The notified body verifies all individual product in order to ensure conformity to requirements

The relation of requirements and Module (manufactured in series)

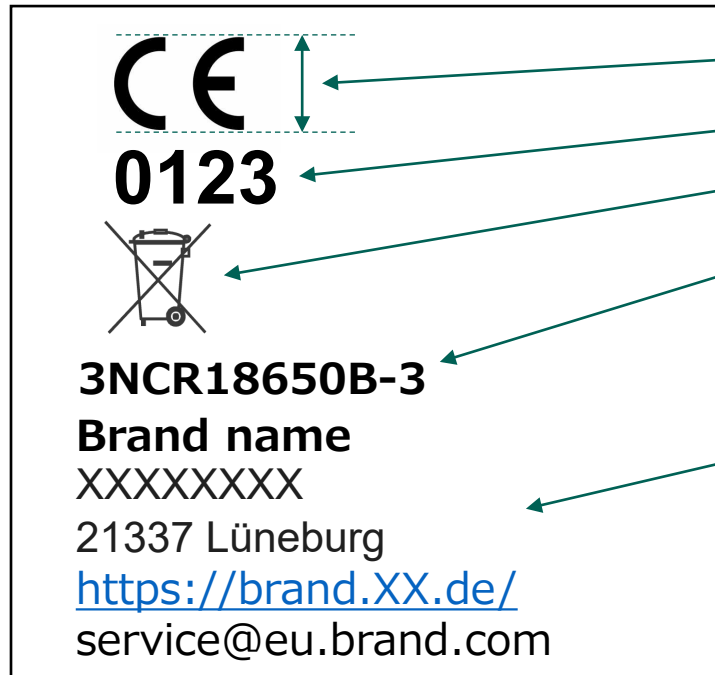
Article 6 Hazardous substance	Article 7 CFP	Article 8 Recycle	Article 9 Performance (Portable)	Article 10 Performance (Ind/LMT/EV)	Article 12 Safety of ESS	Article 13 label	Article 14 BMS life
A (or D1)	D1	D1	A (or D1)	A (or D1)	A (or D1)	A (or D1)	A (or D1)

We are basically compatible with module A, except for CFP and Recycle.

We will provide the conformity assessment report which necessary for customers to comply with CE marking.

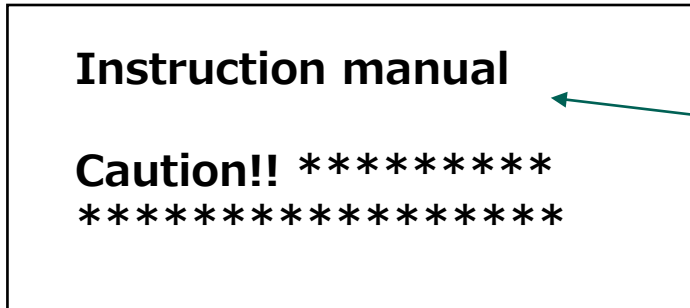
The notified body for module D1 has not been decided at this time, so it difficult to respond immediately.

Example of Marking for CE marking (Label+document)



1. CE marking Article 19
Height more than 5mm Regulation (EC) No 765/2008 ANNEX II Cl.3
2. Number of notified body *only module D1
3. Crossed out wheellie bin symbol minimum dimensions for surface area Article13 Cl.4
4. Model identification (type name, etc) Article 38 Cl.6
- 5-1. Identification of manufacturer Article 38 Cl.7
 - Manufacturer's name, trade name or trade mark,
 - their postal address, indicating a single contact point,
 - if available, web and e-mail address. If available
- 5-2. Identification of importer Article 41 Cl.3
 - Importer's name, trade name or trade mark,
 - their postal address, indicating a single contact point,
 - if available, web and e-mail address. If available

If the above cannot be displayed due to the size or nature of the battery,
• 1,2 are indicated on the attached documents and package Article 20 Cl.1
• 4, 5-1, 5-2 are indicated on the attached document or package Article 38 Cl.6,7



6. Attached document Article38 Cl.1
battery accompanied by clear, understandable and readable instructions and safety information in a language or languages which can be easily understood by end-users.

Small battery can not be displayed on the battery. For individual products, please contact the respective business unit. This is the minimum marking required for CE marking and does not cover all marking requirements in the battery regulations.

Our Products List

Products	Battery type	Code	Buy in market	Replace	Category	CE marking On battery
Coin shape lithium primary battery	BR Coin	BR	No	Technician	Industrial	impossible
	CR Coin (for consumer)	CR	Yes	User	Portable	impossible
	CR Coin (for industrial)* ¹	CR	No	Technician	Industrial	
	High temp. BR coin	BR-A	No	Technician	Industrial	impossible
	High temp. CR coin	CR-A				
Cylindrical lithium primary battery	BR cylinder	BR	No	User	Industrial	possible
	CR cylinder (for consumer)	CR	Yes	User	Portable	possible
	CR cylinder (for industrial)* ²	CR	No	Technician	Industrial	possible
Pin shape lithium primary battery	BR pin	BR	Yes	User	Portable	impossible
Coin shape lithium secondary battery	CTL coin	CTL	No	Technician	Industrial	impossible
	MS Coin	MS				
	MT coin	MT				
	ML coin	ML				
	VL coin	VL				
lithium ion battery	Pin ion	CG	No	Technician	Industrial	impossible
Nickel metal hydride battery	For consumer	BK,HHR	Yes	Technician	General use portable	possible
	For industrial	BK,HHR	No	User	Industrial	possible
Dry battery	Manganese battery	R	Yes	User	General use portable	possible
	Alkaline battery	LR				



For industrial use, "Industrial" is on the cell

Battery Category

Batteries available for general sale are categorized as "portable" and other batteries are categorized as "industrial".

CE marking

Cylindrical: on the battery body
 Coin, pin type: Written on final equipment, instruction manuals, etc.,
 Assembled battery: according to customer's request

*1 with tab-terminal, etc.

*2 cells with "Industrial" marking, with tab-terminal or connector, assembled battery, etc.

Panasonic ENERGY

未来を変えるエネルギーになる。