

Compliance of the MM-GKR Series Sensorless Servo Motors with Rules for China Energy Label

Thank you for your continued patronage of Mitsubishi Electric drive control products. This document provides information on compliance with rules for the China Energy Label for the MM-GKR series sensorless servo motors.

1. Overview

The Chinese national standard "Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors" (GB 30253-2024) was issued on September 29, 2024. In addition, "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors" (CEL 038-2020) was revised, and the 2025 edition was issued on September 26, 2025. Due to this, the energy label currently attached to the motors needs to be changed. The following sections describe the details of the rules and Mitsubishi Electric's actions.

2. Influence

From January 1, 2026, motors with the China Energy Label compliant with CEL 038-2020 will be prohibited from export to China. The rules apply to motors, but those incorporated in machines are not applicable.

3. "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors" (2025 edition) and "Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors" (GB 30253-2024)

(1) Applicable motors

- 1) As of the first edition of this Sales and Service
Inverter-driven permanent magnet synchronous motors that meet the following conditions are applicable. Motors with electromagnetic brake or reduction gear are excluded. (Date of change: December 2025 or later, to be applied sequentially)

Table 1. Conditions

Item		Current	New
Applicable range	Rated output	0.55 to 90 kW	0.55 to 1250 kW
	Rotation speed	500 to 3000 r/min	45 to 6000 r/min
	Rated voltage	1000 V or lower	1140 V or lower

- 2) As of the version A of this Sales and Service (Applicable motors added)
Sensorless servo motors with electromagnetic brake that meet the conditions in Table 1 are also applicable.
Sensorless servo motors with electromagnetic brake and reduction gear are excluded. (Date of change: January 2026 or later, to be applied sequentially)

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[Reason for the addition]

According to Section 1.2 in "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors", the following motors are not applicable to the regulation.

(2) A motor, whose brake cannot be removed, that cannot be supplied with a single power supply. Although we presumed based on the description above that sensorless servo motors with electromagnetic brake were not applicable, we found that the interpretation was incorrect.

(2) Details of regulations

Table 2. Details of regulations

Item		Current	New
Implementation Rules (CEL)	No.	CEL 038-2020	2025 edition
	Name	Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors	Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors
	Date of issue	April 29, 2020	September 26, 2025
	Date of implementation	July 1, 2020	January 1, 2026
Efficiency grades (GB)	No.	GB 30253-2013	GB 30253-2024
	Name	Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors	Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors
	Date of issue	December 18, 2013	September 29, 2024
	Date of implementation	September 1, 2014	October 1, 2025

(3) Exclusions

The China Energy Label needs not be attached to the following motors.

(a) Motors described in Section 1.2 in "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors"

- A motor, embedded in a machine such as a fan, pump, or compressor, that cannot be tested alone *1

*1 To be judged by the exporter (or machine manufacturer).

For "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors", refer to the following website (Chinese only).

https://www.ndrc.gov.cn/xxgk/zcfb/ghxwj/202509/t20250926_1400696.html

(b) Products described in Article 11 (7) and (8) in "Measures for the Administration of Energy Efficiency Labels" (superior rule of "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors")

- Products required for maintenance by the end user (maintenance purposes)
- Products used in factory production lines or required to support production lines (factory equipment purposes)

For "Measures for the Administration of Energy Efficiency Labels", refer to the following website (Chinese only, in PDF format).

<https://www.ndrc.gov.cn/xxgk/zcfb/fzggwl/201603/W020190905495017011772.pdf>

To export motors alone to China, documents describing that the China Energy Label is not required for the reasons above may be necessary to clear customs. Such documents are to be prepared by importers (exporters). If you have any questions, contact the customs office.




4. Mitsubishi Electric's Actions

Mitsubishi Electric MM-GKR sensorless servo motors will comply with rules for China Energy Label. The motors will be registered to the system of the authorities, and after approval, the indications on the China Energy Label will be changed. The indications on the rating plate and packaging label will also be changed, and the label currently attached by string will be attached by tape.

The timing of the label change may not align with the attachment method change.

Although the China Energy Label compliant with CEL 038-2020 will be attached to the motors after October 1, 2025 depending on the amount of the remaining inventory and production condition, this does not affect exports to countries other than China.

When the criteria are not met or during transition periods, the China Energy Label and the related indications on the rating plate and packaging label may be removed.

Item	Description
China Energy Label	 <p data-bbox="343 1263 928 1319">The year indicated at the end will be changed in accordance with the Implementation Rules (2025 edition).</p>
Rating plate	 <p data-bbox="343 1547 928 1615">Indication related to energy efficiency in China. To be changed in accordance with the Implementation Rules (2025 edition).</p>
Packaging label	 <p data-bbox="343 1850 928 1917">Indication related to energy efficiency in China. To be changed in accordance with the Implementation Rules (2025 edition).</p>

- * The table above shows examples. The size of the rating plate, positions and sizes of the markings, indications, and the label attachment method differ depending on the model.
- * Depending on the amount of the remaining inventory, products before and after the change may coexist in the distribution stage.

5. Date of Change

(1) Applicable motors as of the first edition (Section 3 - (1) Applicable motors - 1) As of the first edition of this Sales and Service)

The change will be sequentially applied to the products in December 2025 or later.

(2) Added applicable motors (Section 3 - (1) Applicable motors - 2) As of the version A of this Sales and Service (Applicable motors added))

The change will be sequentially applied to the products in January 2026 or later.

Revisions

Version	Date of issue	Revision
A	February 2026	Added motors with electromagnetic brake to the applicable motors.