MITSUBISHI ELECTRIC Sensorless Servo Sales and Service

No. 046E

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) Details

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

| Date of issue | November 2025 | Title | Compliance of the MM-GKR Series Sensorless Servo Motors with Rules for China Energy Label | Mitsubishi Electric Corp., Nagoya Works 5-1-14 Yada-minami, Higashi-ku, Nagoya 461-8670 Tel.: +81 (52) 721-2111 Main line |
|---------------------|---------------|-------|---|---|
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(2) Products affected

Inverter-driven permanent magnet synchronous motors that meet the following conditions are applicable. Motors with brake or reduction gear are excluded.

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

(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

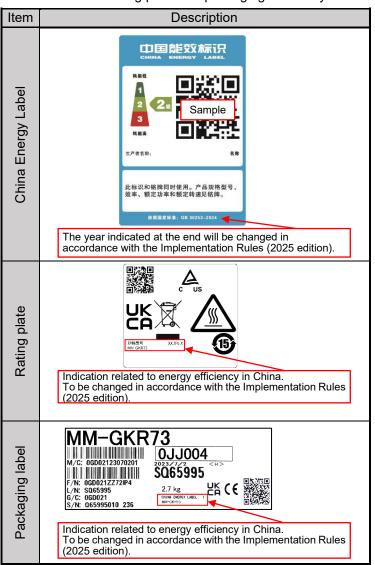
To export motors alone to China, documents describing that the China Energy Label is not required for the reasons above may be necessary to clear customs. Such documents are to be prepared by importers (exporters). If you have any questions, contact the customs office.

4. Mitsubishi Electric's Actions

Mitsubishi Electric MM-GKR sensorless servo motors are expected to comply with rules for China Energy Label. The applicable motors are sequentially to 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.

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.



- * 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

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