

## Compliance of the MM-GKR and MM-CF Series Sensorless Servo Motors with China Energy Label Registration

Thank you for your continued patronage of Mitsubishi Electric drive control products. The MM-GKR and MM-CF series sensorless servo motors will comply with China Energy Label registration.

### 1. Products Affected

MM-GKR series

MM-CF series

\* For more detailed information, refer to "2. (2) Details on affected motors".

### 2. Details of Change

#### **1. Overview**

Chinese authorities has issued "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors" on April 29, 2020.

The China Energy Labels may need to be attached on permanent magnet synchronous motors, as well as induction motors, to clear Chinese customs from July 1, 2020. Details of the rule and Mitsubishi Electric's actions are described below.

#### **2. Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors**

##### (1) Details

This rule demands application of China Energy Labels on permanent magnet synchronous motors sold in China. For application of the labels, the motor efficiency must satisfy the reference value specified in standard GB 30253-2013.

Although this rule was implemented on July 1, 2020, motors manufactured or imported to China before July 1, 2020 can be sold without the labels until July 2021.

##### (2) Details on affected motors

The rule applies to inverter-driven permanent magnet synchronous motors having the following specifications.

- Rated speed: 500 to 3000 r/min
- Rated output: 0.55 to 90 kW
- Rated voltage: 1000 V or less  
(except for a motor with a brake or a geared motor)

\* The word "inverter-driven" used in the rule above has a broad meaning. Inverter-driven motors in this context include servo motors driven by Mitsubishi Electric drive units.

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**(3) Exempted products**

The China Energy Labels need not be attached on the following products.

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

- Motors that cannot be tested separately since they are embedded with other devices such as fans, pumps, and compressors\*1

\*1 Exporters (or equipment manufacturers) should judge whether the motors fall under this definition.

"Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors" can be checked on the following website (Chinese only):

<https://www.energylabelrecord.com/ggtz/display.htm?contentId=e89328b9f25a408091cd3e065d242ca5>

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

- Products necessary for maintenance by end users (maintenance purposes)
- Products necessary for factory production lines or for completing the production lines (factory equipment purposes)

"Measures for the Administration of Energy Efficiency Labels" can be checked on the following website (Chinese only, in PDF format):

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

To export motors as single units, Chinese customs may demand documents describing that the China Energy Labels need not be attached on the motors for the reasons above. The documents should be prepared by importers/exporters.

**3. Mitsubishi Electric's action**

Mitsubishi Electric sensorless servo motors (MM-GKR and MM-CF series) will be applied for China Energy Label registration.

After approval of registration, the China Energy Labels will be attached on the motors having specifications described in Section 2 (2).

The indication corresponding to the China Energy Label will be added on the rating plate and packaging label.

For details on the rating plate and packaging label, refer to the Sales and Service No. 034E.

Label format example:

Label format examples are provided in Appendix 1 on page 10 in the "Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors".

The examples can be checked on the following website (Chinese only, in PDF format):

<https://www.energylabelrecord.com/userfiles/2/files/cms/article/2020/04/%E6%B0%B8%E7%A3%81%E5%90%8C%E6%AD%A5%E7%94%B5%E5%8A%A8%E6%9C%BA%E8%83%BD%E6%BA%90%E6%95%88%E7%8E%87%E6%A0%87%E8%AF%86%E5%AE%9E%E6%96%BD%E8%A7%84%E5%88%99.pdf>

**3. Date of Change**

The change will be sequentially applied to products manufactured in June 2021 or later.  
(The schedule may vary depending on the production condition.)