# CEL China Efficiency Labelling
# Minimum Energy Performance Standard
# Technical Notice for Kollmorgen Servo and Stepper Motors

Per Rule **CEL 038-2020**, Implementation Rules for Energy Efficiency Labeling of Permanent Magnet Synchronous Motors, such electric motors must reach certain efficiency levels to be sold in China. The efficiency level requirements of the CEL038-2020 are found in GB30253.

Per the China TC20 Standardization Technical Committee, the GB30253 standard is not applied to motors for motion control.

The following set of standards corroborates this position:
GB30253 calls out GB755 as a normative standard. Per GB755, standard IEC 60034-30-2 is the normative standard for "methods for determining losses and efficiency from tests".

Per the standard IEC 60034-30-2, Rotating Electrical Machines - Part 30-2 Efficiency classes of variable speed AC motors (IE-code), section 1, Scope:
**"Excluded from this standard are:**
**…**
**Motors that are designed for servo applications, i.e. applications where frequent overload or field-weakening operations or frequent speed and torque changes occur and no thermal steady state operation is reached."**

This means Kollmorgen servo motors, and additionally stepper motors, used for motion control are not under scope of Rule CEL 038-2020.

**Kollmorgen products used for motion control that are excluded from the scope and requirements of the CEL 038-2020 rule:**

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| Products: | All Kollmorgen Servo and Stepper motors |
| Servo Motors: | **AKM** Motors, **AKMA** Motors, **KEM** Motors, **AKM2G** Motors, **AKMH** Motors, **Goldline** Motors, **DDR** and **CDDR** Housed and Cartridge DDR Motors, **VLM** Motors, **KBM** and **CBM** Motors, **TBM** and **TBM2G** Motors, **RBE** Motors, **DDL** Motors. |
| Stepper Motors*: | **PMX** Motors, **PowerMax M** & **P** Motors, **PowerPac K** & **N** Motors, **CT** Motors, **T2**, **T**, **KM**, and **MH172** Motors, **E** & **H** Motors |

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|---|---|
| **Manufacturer:** | **Kollmorgen Corporation** |
| Address: | 201 W Rock Rd |
| | Radford, VA 24141-4099 |
| Phone: | 540 639-2495 |
| Country: | USA |

Signed:

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| Date: | 17 December 2021  (Updated 08 January 2025) |
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