

**Department of Energy**

**§ 431.31**

(p) Starting on June 1, 2027, each NEMA Design A motor, NEMA Design B motor, and IEC Design N (including NE, NEY, or NY variants) motor that is an air-over electric motor meeting the criteria in paragraph (m) of this section and with a power rating from 1

horsepower through 20 horsepower, built in a specialized frame size, but excluding fire pump electric motors, manufactured (alone or as a component of another piece of equipment) shall have a nominal full-load efficiency of not less than the following:

TABLE 10 TO PARAGRAPH (p)—NOMINAL FULL-LOAD EFFICIENCIES OF NEMA DESIGN A, NEMA DESIGN B AND IEC DESIGN N, NE, NEY OR NY SPECIALIZED FRAME SIZE AIR-OVER ELECTRIC MOTORS (EXCLUDING FIRE PUMP ELECTRIC MOTORS) AT 60 HZ

Motor horsepower/standard kilowatt equivalent	Nominal full-load efficiency (%)							
	2 Pole		4 Pole		6 Pole		8 Pole	
	Enclosed	Open	Enclosed	Open	Enclosed	Open	Enclosed	Open
1/75 .....	74.0	.....	82.5	82.5	80.0	80.0	74.0	74.0
1.5/1.1 .....	82.5	82.5	84.0	84.0	85.5	84.0	77.0	75.5
2/1.5 .....	84.0	84.0	84.0	84.0	86.5	85.5	82.5	85.5
3/2.2 .....	85.5	84.0	87.5	86.5	87.5	86.5	84.0	86.5
5/3.7 .....	87.5	85.5	87.5	87.5	87.5	87.5	85.5	87.5
7.5/5.5 .....	88.5	87.5	89.5	88.5	89.5	88.5	85.5	88.5
10/7.5 .....	89.5	88.5	89.5	89.5	89.5	90.2	.....	.....
15/11 .....	90.2	89.5	91.0	91.0	.....	.....	.....	.....
20/15 .....	90.2	90.2	91.0	91.0	.....	.....	.....	.....

(q) For purposes of determining the required minimum nominal full-load efficiency of an electric motor that has a horsepower or kilowatt rating between two horsepower or two kilowatt ratings listed in any table of energy conservation standards in paragraphs (n) through (p) through of this section, each such motor shall be deemed to have a listed horsepower or kilowatt rating, determined as follows:

- (1) A horsepower at or above the midpoint between the two consecutive horsepowers shall be rounded up to the higher of the two horsepowers;
- (2) A horsepower below the midpoint between the two consecutive horsepowers shall be rounded down to the lower of the two horsepowers; or
- (3) A kilowatt rating shall be directly converted from kilowatts to horsepower using the formula 1 kilowatt =  $(\frac{1}{0.746})$  horsepower. The conversion should be calculated to three significant decimal places, and the resulting horsepower shall be rounded in accordance with paragraphs (q)(1) or (2) of this section, whichever applies.

(r) The standards in tables 8 through 10 of this section do not apply to the following electric motors exempted by the Secretary, or any additional electric motors that the Secretary may exempt:

- (1) Component sets of an electric motor;
- (2) Liquid-cooled electric motors;
- (3) Submersible electric motors; and
- (4) Inverter-only electric motors.

[79 FR 31010, May 29, 2014, as amended at 87 FR 63657, Oct. 19, 2022; 88 FR 36150, June 1, 2023]

**§ 431.26 Preemption of State regulations.**

Any State regulation providing for any energy conservation standard, or other requirement with respect to the energy efficiency or energy use, of an electric motor that is not identical to a Federal standard in effect under this subpart is preempted by that standard, except as provided for in Section 345(a) and 327(b) and (c) of the Act.

LABELING

**§ 431.31 Labeling requirements.**

(a) *Electric motor nameplate*—(1) *Required information.* The permanent nameplate of an electric motor for which standards are prescribed in § 431.25 must be marked clearly with the following information:

- (i) The motor's nominal full load efficiency (as of the date of manufacture), derived from the motor's average full

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load efficiency as determined pursuant to this subpart; and

(ii) A Compliance Certification number (“CC number”) supplied by DOE to the manufacturer or private labeler, pursuant to § 431.36(f), and applicable to that motor. Such CC number must be on the nameplate of a motor beginning 90 days after either:

(A) The manufacturer or private labeler has received the number upon submitting a Compliance Certification covering that motor, or

(B) The expiration of 21 days from DOE’s receipt of a Compliance Certification covering that motor, if the manufacturer or private labeler has not been advised by DOE that the Compliance Certification fails to satisfy § 431.36.

(2) *Display of required information.* All orientation, spacing, type sizes, type faces, and line widths to display this required information shall be the same as or similar to the display of the other performance data on the motor’s permanent nameplate. The nominal full-load efficiency shall be identified either by the term “Nominal Efficiency” or “Nom. Eff.” or by the terms specified in paragraph 12.58.2 of NEMA MG1–2009, (incorporated by reference, see § 431.15) as for example “NEMA Nom. Eff. \_\_\_\_.” The Compliance Certification number issued pursuant to § 431.36 shall be in the form “CC \_\_\_\_.”

(3) *Optional display.* The permanent nameplate of an electric motor, a separate plate, or decalcomania, may be marked with the encircled lower case letters “ee”, for example,



or with some comparable designation or logo, if the motor meets the applicable standard prescribed in § 431.25, as determined pursuant to this subpart, and is covered by a Compliance Certification that satisfies § 431.36.

(b) *Disclosure of efficiency information in marketing materials.* (1) The same information that must appear on an electric motor’s permanent nameplate pursuant to paragraph (a)(1) of this section, shall be prominently displayed:

(i) On each page of a catalog that lists the motor; and

(ii) In other materials used to market the motor.

(2) The “ee” logo, or other similar logo or designations, may also be used in catalogs and other materials to the same extent they may be used on labels under paragraph (a)(3) of this section.

[69 FR 61923, Oct. 21, 2004, as amended at 77 FR 26637, May 4, 2012]

**§ 431.32 Preemption of State regulations.**

The provisions of § 431.31 supersede any State regulation to the extent required by Section 327 of the Act. Pursuant to the Act, all State regulations that require the disclosure for any electric motor of information with respect to energy consumption, other than the information required to be disclosed in accordance with this part, are superseded.

**CERTIFICATION**

**§ 431.35 Applicability of certification requirements.**

Section 431.36 sets forth the procedures for manufacturers to certify that electric motors comply with the applicable energy efficiency standards set forth in this subpart.

**§ 431.36 Compliance Certification.**

(a) *General.* A manufacturer or private labeler shall not distribute in commerce any basic model of an electric motor which is subject to an energy efficiency standard set forth in this subpart unless it has submitted to the Department a Compliance Certification certifying, in accordance with the provisions of this section, that the basic model meets the requirements of the applicable standard. The representations in the Compliance Certification must be based upon the basic model’s energy efficiency as determined in accordance with the applicable requirements of this subpart. This means, in part, that either:

(1) The representations as to the basic model must be based on use of a certification organization; or

(2) Any testing of the basic model on which the representations are based must be conducted at an accredited laboratory.