

IS 12615: 2026

Line Operated Three Phase a.c. Motors (IE Code) Efficiency Classes and Performance — Specification (*Fourth Revision*)

Electric motors are the most important type of electric load in every industry. The motor driven systems account for about seventy percent of the energy consumed by the industry. There is a large potential for cost savings in the use of energy efficient motor systems which is estimated to be about twenty to thirty percent. Electric motor systems include several energy-using products, such as standalone motors, drives, pumps or fans, compressors, blowers and other machines. Energy efficient motors form a major component in contributing to the energy saving by way of increased efficiency of the product itself.

However, with the different test methods specified in different standards, one to one comparison becomes difficult for the purchaser or the end user. Therefore, a need was felt globally to harmonize the motor standards with the international standards so as to have uniform test procedures to facilitate the end user to compare the performance and energy efficiency requirements.

Acknowledging the need for energy saving in view of the energy scarcity, climate change mitigations and the potential that exists with energy efficient motors, number of countries have already issued directives to withdraw lower efficiency classes and adopt higher efficiency class motors as per IEC 60034-30-1 : 2014 thus defining minimum efficiency performance standards (MEPS) in their countries. Such regulations are expected to impose technical barriers to imports into their countries of motors which are with lower efficiency classes than their MEPS.

In the fourth revision of this standard following updates are being made-

- a) References made to IS 15999 (Part 1) : 2021 and IS 15999 (Part 2/Sec 1) : 2023 are being replaced by IS/IEC 60034-1 : 2022 and IS/IEC 60034-2-1 : 2024 respectively;
- b) Further this fourth revision includes the knowledge gained and few technical explanations sought by the users of the standard regarding certification, testing and practical bottlenecks identified;
- c) Customer specific tests have been moved to an informative annexure; and
- d) Extrapolation methods of testing these motors have been updated.

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