### भारतीय मानक ब्यूरो (केंद्रीय मुहर विभाग III)

हमारा संदर्भ : सी एम डी - III/16 : IS 12615 29 अगस्त 2018

विषय : आई एस IS 12615:2018 के लिए समूहीकरण दिशानिर्देश

सभी संबंधित पक्षकारों से अनुरोध है कि आई एस 12615 :2018 के लिए संलग्न समूहीकरण दिशानिर्देश की अनुपालन सुनिश्चित करें।

अलिस्मिता खाग वैज्ञानिक बी (सी एम डी-III)

## प्रमुख (सी एम डी-॥।)

सभी क्षेत्रीय /शाखा कार्यालय

प्रतिलिपि : आई टी एस विभाग - बी आई एस इंट्रानेट पर डालने हेतू

#### **CENTRAL MARKS DEPARTMENT III**

Our Ref: CMD III/16: IS 12615 29 August 2018

Subject: Grouping Guidelines for Certification of Line Operated Three Phase a.c. Motors (IE Code) "Efficiency Classes and Performance Specification" as per IS 12615:2018

All concerned are requested to ensure compliance of the grouping guidelines.

Alismita Khag Sc B(CMD III)

#### Head (CMD III)

Circulated to: All ROs/BOs

Copy to: ITS for hosting on Intranet

# BUREAU OF INDIAN STANDARDS (Central Marks Department-III)

Our Ref: CMD-III/16:IS 12615 29 August 2018

Subject: Grouping Guidelines for Certification of Line Operated Three Phase a.c. Motors (IE Code) "Efficiency Classes and Performance Specification" as per IS 12615:2018

- 1. The guidelines given below shall be followed with immediate effect for considering GOL/Inclusion of Line Operated Three Phase a.c. Motors (IE Code) "Efficiency Classes and Performance Specification" as per IS 12615:2018:
  - a. The following parameters are taken into consideration for the purpose of grouping:

i. Type of mounting: Foot mounted, Flange mounted, Vertical shaft

ii. Number of Poles: 2,4,6,8

iii. Efficiency Class: IE2, IE3,IE4

iv. Degree of Protection: IP44 or Superior

v. Insulation Class: B, F or higher vi. Rated Voltage: upto 1000 V

vii. Rated Output: 0.12 kW to 1000 kW

- b. Motors with rated output from 0.12 kW to 1000 kW, having same other classifications as above are considered as one group. Motors with lowest and highest rated output in the group shall be tested for covering the entire range of the motors in that group. If the range consists of more than 10 motors, one intermediate rating of motor shall also be tested.
- c. The following relaxation may be given when a variety is tested for all the requirements:
  - i. If efficiency class of IE4 is tested, IE3 and IE2 shall also be covered.
  - ii. If motors with superior degree of protection than IP44 is tested, motors with lower degree of protection shall also be covered.
  - iii. For Foot Mounted, Flange Mounted and Vertical Shaft motors, separate samples may not be drawn for Independent Testing. If motor with any one type of mounting is drawn and tested, motors with other type of mounting may be covered by testing the motor for dimensional requirements as per the applicable Indian Standard(s).
  - iv. By testing motors of any one rated voltage, motors with other rated voltages can also be covered.
- 2. The Firm shall declare the varieties of various Three Phase Squirrel Cage Energy Efficient Induction Motors they intend to cover in the Licence. The Scope of Licence

may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

- 3. During the operation of the Licence, BO shall ensure all the Varieties covered in the Licence are tested in rotation to the extent possible.
- 4. When samples are tested to cover the entire range of motors as per IS 12615:2018, it shall be ensured that at least one sample for each type of pole/insulation shall be tested.
- 5. For the samples so drawn, if test reports for degree of protection test are available with the manufacturer, which are less than five years old and conforming to the relevant Indian Standard, the test for degree of protection may not be repeated.
- 6. A typical example for drawal of samples to cover the entire varieties under the scope of the license is given below for the purpose of general guidance:
  - a) <u>Sample 1</u>: 0.12 kW, 2 Pole, Efficiency Class IE 2, Insulation Class B, IP 44, Foot mounted.
  - b) <u>Sample 2</u>: 30 kW, 4 Pole, Efficiency Class IE 3, Insulation Class F, superior degree of protection than IP 44, Flange mounted.
  - c) <u>Sample 3</u>: 375 kW, 6 Pole, Efficiency Class IE 4, Insulation Class F, IP 44, Vertical Shaft.
  - d) <u>Sample 4</u>: 1000 kW, 8 Pole, Efficiency Class IE 4, Insulation Class higher than F. IP 44. Foot mounted.
- 7. The scope of the Licence may be given in the following manner:

"Line Operated Three Phase a.c. motors, upto and including ....V, ...Hz, ... Duty, 2/4/6/8 Poles, Efficiency Class IE 2 /IE 3 /IE 4, Degree of Protection IPXX, Foot Mounted/Flange Mounted/Vertical Shaft, Insulation Class ......., Rated Outputs......'

Alismita Khag Sc. B (CMD-III)

Head (CMD-III)

**DDG**(Certification)