

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 अनुपालन हेतु एस आई टी

सभी क्षेत्रीय और शाखा कार्यालयों से अनुरोध है की एस आई टी DOC:SIT/IS 12615/ 1/ August 2018 का अनुपालन सुनिश्चित करें।

अलिस्मिता खाग
वैज्ञानिक बी (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय /शाखा कार्यालय
प्रतिलिपि : आई टी एस विभाग - बी आई एस इंटरनेट पर डालने हेतू

CENTRAL MARKS DEPARTMENT III

Our Ref: CMD III/16: IS 12615

29 August 2018

Subject: SIT for implementation of IS 12615:2018

All ROs/BOs are requested to ensure implementation of the SIT DOC:SIT/IS 12615/ 1/ August 2018.

Alismita Khag
Sc B(CMD III)

Head (CMD III)

Circulated to: All ROs/BOs

Copy to: ITS for hosting on Intranet

**SCHEME OF INSPECTION AND TESTING FOR CERTIFICATION OF
LINE OPERATED THREE PHASE a.c. MOTORS
ACCORDING TO IS 12615:2018**

1. LABORATORY- A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS - The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING - As per the requirements of IS 12615 : 2018.

4. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5. REJECTIONS - Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1 LEVELS OF CONTROL

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
8	Earthing	—	IS 15999(Part 1)	R	Each Motor	—	—
9	Terminal Marking	—	IS/IEC 60034-8	R	Each Motor		
16.1.1	Insulation Resistance Test	16.1.1	IS 12615:2018	R	Each Motor		
		—	IS 7816				
16.1.2	Measurement of Resistance of Windings of Stator	8.6	IS 15999(Part 1)	R	Each Motor		
		5.7	IS 15999(Part 2/Sec 1)				
16.1.3	No Load Test	9.1	IS 15999(Part 1)	R	Each Motor		
		—	IS 15999(Part 2/Sec 1)				
16.1.4	Locked Rotor Readings of Voltage, Current and Power Input at a suitable reduced voltage	16.1.4	IS 12615:2018	R	Each Motor		
16.1.5	Reduced Voltage running up test at no-load	16.1.5	IS 12615:2018	R	Each Motor	—	For squirrel cage motor up to 37kW only
16.1.6	High Voltage Test	9.2	IS 15999(Part 1)	R	Each Motor	—	—

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: Required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
16.2.1	Dimensions	16.2.1	IS 12615:2018	R	One Motor	Motors of each type & design manufactured at the first instance or whenever there is a change in dimension.	If any motor fails, all the motors produced subsequently shall be tested till three consecutive samples pass. For every failure, appropriate steps shall be taken to rectify the defect in subsequent motors and record of the same maintained.
		—	IS 1231, IS 2223, IS 2254, IS 8223				
16.2.4	Temperature Rise Test	16.2.4	IS 12615:2018	R	One Motor	Motors of each type & design, manufactured in three months.	
16.2.3	Full Load Test to determine Efficiency, Power Factor and Slip	—	IS 15999(Part 2/Sec 1)	R	One Motor	Motors of each type & design, manufactured in a month.	If any motor fails, all the motors produced subsequently shall be tested till five consecutive samples pass. For every failure, appropriate steps shall be taken to rectify the defect in subsequent motors and record of the same maintained.
16.2.5	Momentary Overload Test	16.2.5	IS 12615:2018	R	One Motor		
16.2.2	Locked Rotor Test	16.2.2	IS 12615:2018	R	One Motor		—

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
16.3.1	Vibration Severity of Motor	—	IS 12075	As per the mutual agreement between the manufacturer & the purchaser			—
16.3.2	Noise Levels of Motor	—	IS 12065				
16.3.3	Degree of Protection by Enclosure	—	IS/IEC 60034-5				
16.3.4	Over Speed Test	9.7	IS 15999(Part 1)				
16.3.5	Temperature rise at Limiting Values of Voltage & Frequency variation	16.3.5	IS 12615:2018				
		8	IS 15999(Part 1)				

Note- 1: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.