उत्पाद मैन्युअल
आई एस 302 -1 : 2008 के अनुसार
घरेलु एवं सामान विद्युत् साधित्रों की सुरक्षा भाग 1 सामान्य अपेक्षाएँ (छठा पुनरीक्षण) के लिए
दस्तावेज़ संख्या – पीएम/आई एस 302 -1/4/ मई 2025

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना-I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैन्युअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

PRODUCT MANUAL FOR
SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES
PART 1 GENERAL REQUIREMENTS (SIXTH REVISION)
ACCORDING TO IS 302 -1 : 2008

Document No - PM/IS 302-1/4/May 2025

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification underScheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग
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New Delhi – 110002

उत्पाद मैन्युअल
आई एस 302 – 1 : 2008 के अनुसार
घरेलु एवं सामान विद्युत् साधित्रों की सुरक्षा भाग 1 सामान्य अपेक्षाएँ (छठा पुनरीक्षण)

PRODUCT MANUAL
SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES PART 1 GENERAL REQUIREMENTS (SIXTH REVISION)
ACCORDINGTO IS 302 – 1 : 2008

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	**मानक संख्या** **IS No.**	:	IS 302-1 : 2008
	शीर्षक **Title**	:	SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES PART 1 GENERAL REQUIREMENTS (SIXTH REVISION)
	संशोधनों की संख्या **No. of amendments**	:	4
2.	**नमूना दिशानिर्देश** **Sampling Guidelines:**		
a)	**कच्चा माल** **Raw material**	:	• Components as per Cl. 24 of IS 302 – 1

b)	**समूहीकरण दिशानिर्देश** **Grouping Guidelines**	:	Please refer ANNEX – A
c)	**नमूने का परिमाण** **Sample Quantity**	:	2 numbers
3.	**परीक्षण उपकरणों की सूची** **List of Test Equipment**	:	Please refer ANNEX – B
4.	**निरीक्षण और परीक्षण की स्कीम** **Scheme of Inspection and Testing**	:	Please refer ANNEX – C
5.	**एक दिन में संभावित परीक्षण** **Possible tests in a day:**	:	Please refer ANNEX-D
6.	**लाइसेंस का दायरा /Scope of the Licence**	:	As per below table
	Licence is granted to use Standard Mark as per IS 302 – 1 : 2008 with the following scope:		
	Name of the Product		SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES PART 1 GENERAL REQUIREMENTS (SIXTH REVISION)
	Product Type		<name of the electrical appliance>
	Model No.		
	Class of Appliance		Class I/II/III
	Rating		____ W, ____ V, ____ Hz, _____Phase
	Other requirements		Product specific requirements, wherever applicable

ANNEX – A

समूहीकरण दिशानिर्देश
Grouping Guidelines

1) Manufacturer shall declare the parameters defined in scope of licence for each model(s) of each type(s) of electrical appliance(s) manufactured by them.
2) For grant of licnce/ change in scope of licence, each model of each type of electrical appliance is to be tested.
3) However, change in aesthetics, i.e colour, visual design etc may not be treated as different model.
4) The Firm shall declare the model(s) of each type(s) of electrical appliance(s) they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing capability and testing facilities of the Manufacturer.

5) Further, the manufacturer shall submit the following:
    a) Instruction Manual as per the requirements of Cl. 7.2;
    b) Declaration of following parameters for each model:
        i). Grade (Pollution degree:__, Material group:__);
        ii). Insulation Class;
        iii). Any product specific requirements, wherever applicable; and
        iv). Picture/ drawing of the product with complete details.

6) During the operation of the Licence, BO shall ensure that all the models covered in the Licence are tested in rotation to the extent possible.

ANNEX – B

परीक्षण उपकरणों की सूची

List Of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests Used in WithClause Reference	Test Equipment/Chemical
1.	Cl. 8 (Protection against electric shock)	Voltmeter, Finger Test Apparatus
2.	Cl. 13.3 (High Voltage test)	High Voltage Tester, Voltmeter, mili Ammeter
3.	Cl. 10 (Power input and current), Cl. 13 (Leakage current & Electric strength at operating temperature), Cl. 16 (Leakage current & Electric strength), Cl. 27 (Provision for earthing)	Voltmeter, Ammeter, Wattmeter, Micro ammeter, MegaOhm Meter, Frequency Meter, Test Finger, Mili Ammeter
4.	Cl. 30 (Resistance to Heat, Fire and Tracking)	Glow Wire Test Apparatus, Oven, Ball Pressure Apparatus, Heating Oven with Temperature Indicator,Timer
5.	Cl. 14 (Transient Overvoltage), Cl. 17 (Overload Protection of Transformers and associated circuits, Cl. 19 (Abnormal operation)	Endurance Test Apparatus (Voltmeter, Ammeter,Wattmeter, Energy Meter, Counter Meter, Timer)
6.	Cl. 11 (Temperature Rise)	Test Corner consisting of dull-black painted plywood, Temperature Controller
7.	Cl. 15 (Moisture Resistance)	Humidity Chamber (Temperature Indicator, Temperature Controller, Thermo hygrometer, Hour Meter), Test set up for degree of protection against moisture
8.	Cl. 21 (Mechanical Strength)	Impact tester, Spring Hammer, Finger Test Apparatus
9.	Cl. 22 (Construction)	Micrometer, VAW meter, Pressure Test Apparatus
10.	Cl. 23 (Internal wiring)	Flexing Test Apparatus
11.	Cl. 25 (Supply Connection and External Flexible Cables and Cords)	Cord Grip Test Apparatus, Measuring Tape, Micro-ohmmeter

12.	Cl. 26 (Terminals for external conductors)	Torque Screwdriver
13.	Cl. 27 (Provision for earthing)	Earth Contact Resistance Testing Panel (ECR Measurement), Voltmeter, Ammeter
14.	Cl. 28 (Screws and Connections)	Torque Wrench
15.	Cl. 29 (Creepage Distances and Clearances)	Filler Gauge, Vernier Calliper, Micrometer

Note: The above list is indicative only and may not be treated as exhaustive.

ANNEX – C

निरीक्षण और परीक्षण की स्कीम

Scheme Of Inspection And Testing

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing theStandard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 **RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:**

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: **All Household and Similar Electrical Appliances of each variety/ product type and each model number manufactured in a day, shall constitute a control unit**. The manufacturer has the choice to define their own control unit/batch/lot and submit the same to the BIS.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**. **Manufacturers may submit their own product specific Quality Assurance plan to BIS.**

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively,the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In housetesting facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as “R” or other tests which can be subcontracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as perIS/ISO/IEC 17025.

2.2 **For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional**.

2.2.1 MSME manufacturers may utilize common cluster-based facilities as per guidelines for the utilization of cluster-based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 **Large Scale manufacturers shall maintain an in-house laboratory equipped at least withtest facilities for routine tests (indicated as "R" in Column 2 of Table 1)**, where different testsgiven in the specification shall be carried out in accordance with the method given in the specification**.** They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 **TEST RECORDS**- The manufacturers maintaining an in-house laboratory or utilizing common cluster-based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratoryor any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on **each Household and Similar Electrical Appliances and also on its packaging** (wherever applicable) provided always that the **Household and Similar Electrical Appliances** so marked conforms to each requirement of the specification. In addition, marking shall be done as per the Cl. 7 of **IS 302 - 1 : 2008**.

4. Additional Marking requirements:

a) The material shall also be marked with the following additional requirement on packaging: "For BIS certification details please visit www.bis.gov.in"
b) Instruction shall be provided with each **Household and Similar Electrical Appliances** as per requirement prescribed at Cl. 7.12 of the **IS 302 - 1 : 2008.**
c) Product specific marking as prescribed in relevant section of IS 302 (Part 2) series, wherever available, shall also be marked on the product and/ or packaging.

5. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(ONLY FOR GUIDANCE PURPOSE)

(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**				
24	Components	24	IS 302 - 1	S	Each consignment of components received	Further testing is not required if supplied with BIS Standard Mark or with Test certificate, which ever applicable	
A.2	Earth Continuity Test	A.2		R	Each Household and Similar Electrical Appliances		
A.3	Electric Strength Test	A.3		R			
A.4	Functional Test	A.4		R			
7	Marking and Instruction	7		R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
27	Provision for Earthing	27		R	One	Each Control Unit	
8	Protection against access to live parts	8		S	One	Each model of Household and Similar Electrical Appliances manufactured in the period of six months	
10	Power Input & Current	10		S	One		
13	Leakage current & electric strength at operating temperature	13		S	One		

11	Heating	11	IS 302 - 1	S	One	Each model of Household and Similar Electrical Appliances manufactured in the period of six months.
14	Transient Overvoltage	14		S	One	
15	Moisture Resistance	15		S	One	
16	Leakage Current & Electric Strength	16		S	One	
17	Overload Protection of Transformers and associated circuits	17		S	One	
19	Abnormal Operation	19		S	One	
20	Stability & Mechanical Hazards	20		S	One	
21	Mechanical Strength	21		S	One	
22	Construction	22		S	One	
23	Internal Wiring	23		S	One	
25	Supply Connections & external flexiblecords	25		S	One	
26	Terminals for external conductors	26		S	One	
28	Screws & Connections	28		S	One	
29	Clearances, creepage distances & solidinsulation	29		S	One	
30	Resistance to heat & fire	30		S	One	
31	Resistance to rusting	31		S	One	
32	Radiation, toxicity and similar hazards	32		S	One	

ANNEX – D

एक दिन में संभावित परीक्षण
Possible Tests in a day

1. Marking (Cl. 7);
2. Earth continuity test (A-1);
3. Electric strength test (A-2);
4. Functional test (A-3);
5. Protection against access to live parts (Cl. 8);
6. Leakage Current & Electric Strength at operating temperature (Cl. 13);
7. Provision for Earthing (Cl. 27).