



उत्पाद मैनुअल

आई एस 555 : 1979 के अनुसार

विद्युत् टेबल पंखे एवं रेगुलेटर्स – विशिष्टि (तीसरा पुनरीक्षण) के लिए

दस्तावेज संख्या – पीएम/आईएस 555/1/ जुलाई 2024

*विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना-
। 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। दस्तावेज का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा
भी किया जा सकता है।*

PRODUCT MANUAL FOR

SPECIFICATION FOR ELECTRIC TABLE TYPE FANS AND REGULATORS (THIRD REVISION) ACCORDING TO IS 555 : 1979

Document No - PM/IS 555/1/July 2024

*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.*

भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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New Delhi – 110002



उत्पाद मैनुअल
विद्युत् टेबल पंखे एवं रेगुलेटर्स – विशिष्टि (तीसरा पुनरीक्षण)
आई एस 555 : 1979 के अनुसार

PRODUCT MANUAL
SPECIFICATION FOR ELECTRIC TABLE TYPE FANS AND
REGULATORS (Third Revision)
ACCORDING TO IS 555 : 1979

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.

Note:

1. The product 'Electrical appliance- fans' as per IS 302-2-80 : 2017 is covered under mandatory certification. Therefore, Licence as per IS 302-2-80 : 2017 for the concerned model no.s is a pre-requisite for getting licence for the product as per IS 555 : 1979.

1.	मानक संख्या IS No.	:	IS 555 : 1979
	शीर्षक Title	:	SPECIFICATION FOR ELECTRIC TABLE TYPE FANS AND REGULATORS (THIRD REVISION)
	संशोधनों की संख्या No. of amendments	:	2
2.	नमूना दिशानिर्देश Sampling Guidelines:		

a)	कच्चा माल Raw material	:	- Insulation cords as per IS 694 or IS 9968 (Part 1) - Capacitors for fan motors as per IS 1709 - Electrical sheets for stampings as per IS 648/ IS 649/ IS 3024
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Quantity	:	3 number
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	:	
Licence is granted to use Standard Mark as per IS 555 : 1979 with the following scope:			
	Name of the Product	Electric Table Type Fans/ Electric Wall Mounted Fans	
	Model No.		
	Rating	____ W, ____ V, ____ Hz, ____ Phase	
	Class	Class of Appliance__	
	Degree of protection		

ANNEX – A

समूहीकरण दिशानिर्देश **Grouping Guidelines**

- 1) Manufacturer shall declare the following parameters of the ELECTRIC TABLE TYPE FANS AND REGULATORS as per scope of licence with a model number:
 - a) Name of the Product (Electric Table Type Fans/ Electric Wall Mounted Fans)
 - b) Rating (Wattage, Voltage, Frequency, Phase)
 - c) Class of Appliance
 - d) Degree of protection
- 2) For grant of licence/ change in scope of licence, each model of fan to be tested. Change in aesthetics, i.e colour, visual design etc may not be treated as different model.
- 3) Along with the declaration at Sl. 1 above, manufacturer shall provide the declaration with respect to the following:
 - a) Types of enclosure: Totally Enclosed Type/ Ventilated Type;
 - b) Method of mounting: Rigid/ Semi-rigid/ Oscillating/ Double-oscillating or Gyrostatic;
 - c) Oscillating Mechanism: Non-oscillating / Oscillating;
 - d) Insulation Class;
 - e) Degree of Protection;
 - f) Whether fan is supplied with/ without regulator.
- 4) Further, manufacturer shall declare the type/ designation etc of accessories (regulator, remote control) compatible with the fan.
- 5) Declaration is to be submitted by the manufacturer for each of the models applied with the applicable parameters/declarations. The Scope of the License may be restricted based on the Manufacturing capability and Testing facilities of the Manufacturer.
- 6) During the operation of the License, BO shall ensure that all the model no.s covered in the License 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.	Test equipment list	Test used in with clause reference
1.	Petroleum spirit, Cloth	Cl. 9 (Marking)
2.	Voltmeter, Finger Test Apparatus	Cl. 10.11 (Protection against Electric Shock)
3.	Test Corner consisting of dull-black painted plywood, Temperature Controller	Cl. 10.4 (Temperature Rise)
4.	IR Meter, Micro ammeter, HV Tester, Stopwatch	Cl. 10.5 (Leakage Current)
5.	Humidity Test Chamber	Cl. 12 (Moisture Resistance)
6.	Cord Grip Test Apparatus, Measuring Tape, Micro ohmmeter	Cl. 10.14 (Cord grip test)
7.	Earth Contact Resistance Testing Panel (ECR Measurement), Voltmeter, Ammeter	Cl. 10.10 (Earthing Connection)
8.	Filler Gauge, Vernier Caliper, Micrometer	Cl. 10.16 (Creepage distances and clearances)
9.	Tachometer, Power Factor Meter, Vane Anemometer	Cl. 10.3 (Air Delivery)

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 the Standard 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 ELECTRIC TABLE TYPE FANS AND REGULATORS of same 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.
- 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 house testing 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 per IS/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 with test facilities for routine tests (indicated as “R” in Column 2 of Table 1)**, where different tests given 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 laboratory or 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. **PACKING AND MARKING** - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on **each ELECTRIC TABLE TYPE FANS AND REGULATORS and also on its packaging** provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the **IS 555 : 1979**.

3.2 **Additional Marking requirements**: The product shall also be marked with the following additional requirement on packaging:

a) “For BIS certification details please visit www.bis.gov.in”

4. **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				
9	Marking	9	IS 555	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
7.6	Finish	7.6		R			
-	Earth Continuity Test	A-1	IS 302-1	R	Each Electric Table Type Fans and Regulators		
	Electric Strength Test	A-2		R			
	Functional test	A-3		R			
10.8	Starting	10.8	IS 555	R	Each Electric Table Type Fans and Regulators		
10.1.3	Simple running test	10.1.3		R			
10.7.2	Insulation resistance	10.7.2		R			
10.9	Fan speed and input	10.9		R			
1010	Earthing Connection	10.10		R			
10.6	High Voltage	10.6		R			
6	General Requirements						
6.2	Stampings	6.2	IS 555	S	Each consignment	Note - 1	
6.3, 6.4	Blades and Guard	6.3, 6.4		R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
6.1	Enclosure	6.1		R			
7	GENERAL AND SAFETY REQUIREMENTS						

	Protection Against Electric Shock	8	IS 555	R	One	Every control Unit	
	Electrical insulation under normal operating conditions	7.1, 10.7.1, 10.6		R	Three		
	Creepage Distances and Clearances	29	IS 302-1	S	One	Once every six months for each model.	
	Speed Regulators	7.8	IS 555	S	One		
	Interchangeability	7.9		R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
	Silent Operation	7.10		R			
	Oscillating Mechanism	7.11		R			
8	PERFORMANCE REQUIREMENT						
	Minimum Air delivery and service value	8.2,10.3	IS 555	S	Three	Once a month for each model no.	
10	Other Tests						
7.3	Temperature-rise	7.3, 10.4	IS 555	S	Three	Once every six months for each model	
7.4	Mechanical Endurance Test (for Regulators only)	10.3		S	Three		
10.5	Leakage Current	10.5		S	Three		
10.7.1	Insulation Resistance	10.7.1		S	Three		
10.12	Moisture Resistance	10.12		S	Three		
10.14	Cord grip	10.14		S	Three		
10.16	Creepage distances and clearances	10.16		S	Three		

Note – 1: No further testing required, if supplied with test certificate or BIS Standard Mark.

ANNEX – D

एक दिन में संभावित परीक्षण Possible Tests in a day

1. Earth Continuity test (A-1 of IS 302-1)
2. Electric strength test (A-2 of IS 302-1)
3. Design and General Construction (Cl. 6);
4. Marking (Cl. 9);
5. Temperature-rise (Cl. 10.4);
6. High voltage (Cl. 10.6);
7. Insulation resistance (Cl. 10.7.1);
8. Starting (Cl. 10.8);
9. Fan speed and input (Cl. 10.9);
10. Earthing connection (Cl. 10.10);
11. Protection against electric shock (Cl. 10.11);
12. Cord grip (Cl. 10.14); and
13. Creepage distances and clearances (Cl. 10.16).