



उत्पाद मैनुअल
भा. मा. 17681: 2022 के अनुसार
बोतलबंद जल वितरक के लिए
दस्तावेज संख्या-पी एम/आई एस 17681/2/ दिसंबर 2024

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति औरपारिश्रिता की सुसंगतता सुनिश्चित करनेके लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

PRODUCT MANUAL FOR
BOTTLED WATER DISPENSERS
ACCORDING to IS 17681:2022

Document No.-PM/IS 17681/2/ December 2024

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence 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 licence/certificate.

भारतीय मानक ब्यूरो
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BOTTLED WATER DISPENSERS ACCORDING TO IS 17681: 2022

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1.	Product	:	IS 17681: 2022
	Title	:	Bottled Water Dispensers
	No. of Amendments	:	One
2.	Sampling Guidelines:		
a)	Raw material	:	• <u>Storage Tank</u> ➤ Stainless steel as per IS 5522 or IS 6911 ➤ Plastic as per IS 10146 or IS 10151 or IS 10910 • Hermetic Compressors as per IS 10617 • Other components as per Cl. 4.2 of IS 17681: 2022 <i>Material of components shall be declared and conformity to declaration shall be ensured through test certificate of supplier</i> <i>Material of insulation shall be declared and conformity to declaration shall be ensured through test certificate of supplier</i>
b)	Grouping guidelines	:	Please refer ANNEX –A
c)	Sample Size	:	1 No.
3.	List of Test Equipment	:	Please refer ANNEX –B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX –C
5.	Possible tests in a day	:	Please refer ANNEX –D
6.	Scope of the Licence:	:	Please refer ANNEX –E

BUREAU OF INDIAN STANDARDS

Manak Bhawan,
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New Delhi – 110002

ANNEX- A
Grouping Guidelines

1. For the purpose of certification, following technical parameters are considered for classifications of “Bottled Water Dispensers” into different varieties as per IS 17681: 2022:

Sl. No.	Technical parameters	Classification based on the technical parameters
a)	Type of dispenser	➤ Bottom load water dispenser ➤ Table-top water dispenser ➤ Floor standing water dispenser
b)	Type based on combination of dispensing Cold Water, Hot water, and water at room temperature	a)Cold only; b)Hot only; c)Room temperature only; d)Hot and room temperature; e)Cold and room temperature; f)Cold and hot; g)Cold, hot, and room temperature; h)Water dispenser with an in-built refrigerator cabinet; and j)Water dispenser with storage compartment with cabinet or without cabinet. <i>Product may have other combinations also</i>
c)	Material of Storage tank (For Cold and room temperature water)	➤ Stainless steel ➤ Plastic
d)	Rated capacity (cooling and heating)	Capacity in l/h (cooling and heating)
e)	Rated power input for cooling and heating	Power input in Watts
f)	Rated Voltage and frequency	
g)	Name and quantity of refrigerant used	

2. A variety may be defined as group of models having the same value of these technical parameters as above.
3. Each variety shall be tested for all the requirements for the purpose of Grant of Licence/Change in Scope of Licence. However, following relaxation may be allowed in testing of samples of different types based on combination of dispensing Cold, Hot and water at room temperature:

If sample with combination of all individual dispensing functions (i.e. provision for dispensing Hot, Cold or room temperature water) is tested, then Dispenser with

individual dispensing functions or their combinations may also be covered without separate testing, provided that all other parameters viz. Type of dispenser (Bottom load/Table top/Floor standing), material of storage, rated capacity and input power (as applicable for hot or cold water dispensing), rated voltage frequency and Refrigerant and its quantity (if applicable) remain same.

4. All model numbers, along with their technical parameters as above, intended to be covered in the scope of licence, shall be declared by the manufacturer. Further, In addition to the models drawn for independent testing as per above guidelines, factory test report of all other models intended to be covered in scope shall also be submitted. BIS shall endorse the details of models also as an Annexure in the licence document.

5. During operation of the licence if any new model is intended to be covered within the existing scope of licence (due to changes in technical parameters other than those mentioned above), the parameters as per para 3 above for all such new model numbers will be declared by licensee to BIS for records. Factory test report of all such new models shall also be submitted by the manufacturer. The declaration and factory test reports shall be submitted by the manufacturer as per APPENDIX I through Manakonline (communication window) and the information shall be noted by BIS and these additional models will be endorsed in the licence document by revising the Annexure to the licence document containing the list of models. After submission of the declaration to BIS Branch Office through Manakonline, the licensee may use the standard mark on such new models without waiting for BIS to endorse the models in the licence. **(Licensee shall be able to produce documentary proof of having submitted this information to BIS).**

However, in case any discrepancy is observed post-facto due to which it is viewed that the models are not to be endorsed in the scope (e.g. if the added models do not fall within granted scope), Head of BIS Branch Office concerned, may, after giving the licensee an opportunity to explain, direct the licensee to cease marking on such models, or in case the appliances are already marked and dispatched, issue directions for product recall.

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.

APPENDIX –I

FORMAT FOR DECLARATION FOR ADDING NEW MODELS WITHIN SCOPE OF LICENCE BY LICENSEE

Date:

Branch Office
Bureau of Indian Standards

Sir/Madam

Subject: DECLARATION FOR ADDING NEW MODELS WITHIN SCOPE OF LICENCE

With reference to my existing licence for “Bottled Water Dispensers” (Licence No CM/L-.....), I request BIS to add the following new models in the scope of my licence

List of new models intended to be covered in existing scope of licence

Model	Model 1	Model 2	Model 3
Technical parameter			
Type of dispenser			
Type based on combination of dispensing Cold Water, Hot water, and water at room temperature			
Material of Storage tank (For Cold and room temperature water)			
Rated capacity (cooling and heating)			
Rated power input for cooling and heating			
Rated Voltage and frequency			
Name and quantity of refrigerant used			

I declare that the above models, as indicated above, fall within the existing scope of my licence.

I declare that the above information is true and correct to the best of my knowledge and undertake that in case my declaration is found defective or incorrect BIS may take action as deemed appropriate as per the BIS Act, Rules and Regulations which we shall comply with including recall of such products from the market.

Signature with date of Firm's authorized signatory

Name and designation

ANNEX B**List of Test Equipment*****Major test equipment required to test as per the Indian Standard***

S.No.	Tests used in with Clause Reference	Test Equipment
1.	Salt mist test for all metal parts as per Cl. 6.3	Test chamber and Salt solution as per IS 9000 (Part 11)
2.	Protection Against access to live parts, Cl. 8 of IS 302-2-24	Test probe B, 13 and 41 of IS 1401, Voltmeter, mili ammeter, force gauges, 2000 ohm non-inductive resistor,
3.	Power input and current, Cl. 10 of IS 302-2-24	Voltmeter, Ammeter, Wattmeter, Timer
4.	Heating, Cl. 11 of IS 302-2-24	Temp recorder, Fine wire thermocouples, Winding resistance measurement system, Test Corner, probe for measurement of surface temperature
5.	Leakage current and electric strength at operating temperature, Cl. 13 of IS 302-2-24	IR Meter, Micro ammeter, HV Tester, Stopwatch
6.	Leakage current and Electric Strength (after humidity exposure), Cl. 16 of IS 302-2-24	Humidity Chamber with Temperature and Humidity controller, Leakage Current Tester/ Low impedance ammeter, HV test supply
7.	Provisions for earthing, Cl. 27 of IS 302-2-24	Voltage Source, Milli-ohmmeter
8.	Screws and Connections, Cl. 28 of IS 302-2-24	Torque wrench
9.	Sound Pressure level, Cl. 7	Noise measuring room, Decibel meter
10.	Cooling capacity test, Cl. 10.1	Environmental test chamber/Test set up with thermocouples, Instrument for measuring Voltage, Current and power with accuracy as per Cl. 9 of IS 17681: 2022
11.	Maximum Operating Conditions test, Cl. 10.2 and 10.3	
12.	Heating capacity test, Cl 10.4	
13.	Annual Energy Consumption test, Cl. 10.5	
14.	Freeze-up Test, Cl 10.6	
15.	Pull down test, Cl. 10.9	
16.	Door opening and closing test, Cl. 10.7	Test Fixture, Cycle Counter
17.	Door seal test, Cl. 10.8	Strip of paper of required width and thickness, Micrometer

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

ANNEX C**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. Batch 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 below.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 **Control Unit-** For the guidance of manufacturers, the recommended definition of Control Unit is quantity of Dispensers with same model number produced in one shift of production.

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 sub-contracted 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. LABELLING AND MARKING – As per the requirement of IS 17681:2022. The Standard Mark, as given in the Schedule of the licence, shall be marked on each Dispenser, provided always that the product thus marked conforms to all the requirement of the specification. In addition, the licence no. CM/L-_____ and details of BIS website shall be marked at an appropriate place on product or package as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. REJECTION - All the production which conforms to the Indian Standard and covered under scope of the licence shall be marked with 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 (Recommended levels of Control)

(1)				(2)	(3)		(4)
Test Details				Test equipment requirement R:required (or) S: Sub-contracting permitted	Levels of Control		Remarks
Clause	Requirements	Test Method			No. of Samples	Frequency	
		Clause	Reference				
4.2, 4.4, 4.8	Material and Components	4.2, 4.4, 4.8	IS 17681 IS 5522 IS 6911 IS 10617 IS 10146 IS 10151 IS 10910	S	One	Each Consignment	No further testing is required in case received with test certificate or is ISI Marked. Material of components shall be declared and conformity to declaration shall be ensured through test certificate of supplier Material of insulation shall be declared and conformity to declaration shall be ensured through test certificate of supplier.
4.1, 4.3, 4.5, 4.7, 4.9	Construction	4.1, 4.3, 4.5, 4.7, 4.9	IS 17681	R	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
5	Refrigeration system	5.1, 5.2	IS 17681	R	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
6.1	Safety requirements						
	Protection Against access to live parts	6.1 8	IS 17681 IS 302-2-24	R	Each dispenser		
	Power input and current	6.1 10	IS 17681 IS 302-2-24	R	One	Each Control Unit	

	Heating	6.1 11	IS 17681 IS 302-2-24	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
	Leakage current and electric strength at operating temperature	6.1 13	IS 17681 IS 302-2-24	R	Each dispenser		
	Leakage current and Electric Strength (after humidity exposure)	6.1 16	IS 17681 IS 302-2-24	R	One	Once in a year	
	Provisions for earthing	6.1 27	IS 17681 IS 302-2-24	R	Each dispenser		
	Screws and Connections	6.1 28	IS 17681 IS 302-2-24	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
6.2	Salt mist test	6.2	IS 17681 IS 9000-11	S	One	Each consignment	No further testing is required in case material is received with test certificate or is ISI Marked.
7	Sound Pressure level	7	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.1	Cooling capacity test	10.1	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.2	Maximum Operating Conditions test (Environmental)	10.2	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.3	Maximum Operating Conditions test	10.3	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers

	(Environmental)						produced in a year is tested at least once in a year
10.4	Heating capacity test	10.4	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.5	Annual Energy Consumption test	10.5	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.6	Freeze-up Test	10.6	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.9	Pull down test	10.9	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.7	Door opening and closing test	10.7	IS 17681	R	One	Once in a year	Testing shall be done in such a way that sample of all model numbers produced in a year is tested at least once in a year
10.8	Door seal test	10.8	IS 17681	R	One	Each Control Unit	--

ANNEX D

Possible Tests in a Day

- 1) Cooling Capacity test, Cl. 10.1
- 2) Maximum operating condition test (Environmental), Cl. 10.2
- 3) Maximum operating condition test (Voltage), Cl. 10.3
- 4) Heating capacity test, Cl. 10.4
- 5) Door Seal test, Cl. 10.8
- 6) Pull-down test, Cl. 10.9
- 7) **Safety tests as per IS 302-2-24**
 - a) Protection against Access to live parts, Cl. 6.1 of IS 17681 and Cl. 8 of IS 302-2-24
 - b) Power Input and current, Cl. 6.1 of IS 17681 and Cl. 10 of IS 302-2-24
 - c) Leakage current and HV Test at operating temperature, Cl. 6.1 of IS 17681 and Cl. 13 of IS 302-2-24
 - d) Provision for earthing, Cl. 6.1 of IS 17681 and 27 of IS 302-2-24
 - e) Screws and Connections, Cl. 6.1 of IS 17681 and 28 of IS 302-2-24

ANNEX E**Scope of Licence**

“Licence is granted to use Standard Mark as per IS 17681:2022 with the following scope:	
Name of the product	Bottled Water Dispensers
Type of dispenser	➤ Bottom load water dispenser ➤ Table-top water dispenser ➤ Floor standing water dispenser
Type based on combination of dispensing Cold Water, Hot water, and water at room temperature	a)Cold only; b)Hot only; c)Room temperature only; d)Hot and room temperature; e)Cold and room temperature; f)Cold and hot; g)Cold, hot, and room temperature; h)Water dispenser with an in-built refrigerator cabinet; and j)Water dispenser with storage compartment with cabinet or without cabinet. <i>Product may have other combinations also</i>
Material of Storage tank (For Cold and room temperature water)	➤ Stainless steel ➤ Plastic
Rated capacity (cooling and heating)	Capacity in l/h (cooling and heating)
Rated power input for cooling and heating	Power input in Watts
Rated Voltage and frequency	
Name and quantity of refrigerant used	

Annexure to Scope of licence-List of models covered in scope of licence

Technical parameter	Model 1	Model 2	Model 3
Type of dispenser			
Type based on combination of dispensing Cold Water, Hot water, and water at room temperature			

Material of Storage tank (For Cold and room temperature water)			
Rated capacity (cooling and heating)			
Rated power input for cooling and heating			
Rated Voltage and frequency			
Name and quantity of refrigerant used			