

## केन्द्रीय मुहर विभाग- III

हमारा संदर्भ- सीएमडी -III/16: IS 1391 (पार्ट 2)

21 जून 2019

विषय- आई एस 1391 (पार्ट 2) : 2018 के परिपालन लिए एस आई टी

यह उपरोक्त विषय का संदर्भ है।

सक्षम प्राधिकारी ने अनुपालन हेतु एस आई टी को अनुमोदित कर दिया है।

सभी शाखा कार्यालयों से आग्रह है कि उपरोक्त एस आई टी का अनुपालन तत्काल प्रभाव से सुनिश्चित करे।

(एस डी राणे)  
वैज्ञानिक ई (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग — बीआईएस इंटरनेट पर डालने हेतू

### CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-III/16: IS 1391 (Part 2)

21 June 2019

**Subject: Scheme of Inspection and Testing (SIT) for certification of 'Room Air Conditioners – Part 2 – Split Air Conditioners' as per IS 1391 (Part 2) : 2018**

This has reference to the subject mentioned above.

The SIT for implementation of IS 1391 (Part 2) : 2018 have been approved by the Competent Authority.

All ROs/BOs are requested to ensure the implementation of the above SIT with immediate effect.

(S D Rane)  
Sc-E (CMD- III)

Head (CMD-III)

**Circulated to all RO/BO**

**Copy to: ITS for hosting on BIS Intranet.**

## **Scheme of Inspection and Testing**

**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 equipments.

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

**3. LABELLING AND MARKING** – As per the requirement of IS 1391 (Part 2): 2018.

**4. CONTROL UNIT** –All Room Air Conditioners of one type (based on function) and rating manufactured in a day shall constitute a control unit.

**5. 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.

**6. 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**

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
<b>5</b>	<b>CONSTRUCTION</b>						
5.2	Material	5.2.1	IS 1391 (Part 2)	S	Conformity shall be established as per Internal Quality Assurance Plan of the Licensee.		
5.3.5	Electric Cables	5.3.5, 5.3.6	IS 1391 (Part 2)	S			
5.4	Refrigerant Circuit	5.4	IS 1391 (Part 2)	S			
5.6	Grounding Terminal and Grounding Lead Wire	5.6	IS 1391 (Part 2) IS 302(Part 1)	R	Adequate random Inspection as per Internal Quality Assurance Plan of the Licensee.		
5.7	Air Filter	5.7	IS 1391 (Part 2)	S	Conformity shall be established as per Internal Quality Assurance Plan of the Licensee.		
5.8	Temperature sensing Controls	5.8	IS 1391 (Part 2) IS/IEC 60730- 2-9	S			
5.9	Hermetic Compressors	5.9	IS 1391 (Part 2) IS 10617	S			
5.10	Motors	5.10	IS 1391 (Part 2) IS 996	S			

<b>9, 15.3 PERFORMANCE REQUIREMENTS, TYPE TESTS</b>							
<b>9.2 Safety</b>							
15.3.3	Protection against access to the live part	8	IS 302 (Part 1)	R	One	Each Control Unit	—
	Electric strength test	13.3	IS 302 (Part 1)	R	One	Once in a year for each type and rating.	—
9.2	Safety Conditions for units using A <sub>3</sub> refrigerants	-	IS 16678(part 2)/ ISO 5149(Part 2)	R	One	Once in a month	—
9.3 15.3.1(c)	Power Factor Test	9.3	IS 1391 (Part 2)	R	One	Once in two years for each type and rating.	Please see Note 1
9.4 15.3.1(d)	Maximum Operating Conditions Test	9.4	IS 1391 (Part 2)	R	One	Once in two years for each type and rating.	Please see Note 1
9.5 15.3.1(e)	Freeze Up Test	9.5	IS 1391 (Part 2)	R	One	Once in a year or whenever there is a change in design, whichever is earlier.	—
9.6 15.3.1(f)	Enclosure Sweat Test	9.6	IS 1391 (Part 2)				
9.7 15.3.1(g)	Power Consumption Test for Cooling	9.7	IS 1391 (Part 2)	R	One	Once in two years for each rating.	Please see Note 1
9.8 15.3.1(g)	Power Consumption Test for Heat Pump	9.8	IS 1391 (Part 2)	R	One	Once in two years for each rating.	
9.9	Cooling Capacity Test	9.9	IS 1391 (Part 2)	R	One	Once in two years for each rating.	
9.10	Sound Test	9.10, 14	IS 1391 (Part 2)	S	One	Once in two years for each type.	—

9.11	Heat Pump Heating Capacity Test	9.11	IS 1391 (Part 2)	R	One	Once in two years for each rating.	Please see Note 1
15.3.1 (b)	Room Discharge Air Flow rating Test	6.4, Annex F	IS 1391 (Part 2)	R	One	Once in two years for each type and rating.	—
15.2	<b><i>Production Routine Test</i></b>						
15.2.1	General Running Test	15.2.1	IS 1391 (Part 2)	R	Each Air- conditioner	—	
15.2.2	Pressure Test or Leakage Test	15.2.1	IS 1391 (Part 2)				
15.2.3	High Voltage Test	15.2.3 Annex A	IS 1391 (Part 2) IS 302 (Part 1)				
15.2.4	Leakage Current Test	15.2.4 13.2	IS 1391 (Part 2) IS 302 (Part 1)				
15.2.5	Earth Resistance Test (Provision for Earthing)	15.2.5 27	IS 1391 (Part 2) IS 302 (Part 1)				
15.4	<b><i>Acceptance Tests</i></b>	15.4	IS 1391 (Part 2)	As agreed to between manufacturer and purchaser.			

Note-1: OSL reports may also be accepted for the purpose of operation of the Scheme.

Note-2: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-3: The control unit and levels of control as decided by the Bureau are obligatory to which the licensee shall comply with.