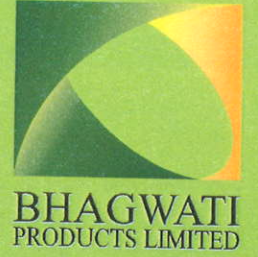




TC-9513



TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

Test Report

Cooling Capacity Test for Split Type Air Conditioner

1. General Information

ULR NO : TC951322000000037F
Test Report No : BPL/2022/08/001
UUT NO : UUTBPLACLAB00003
Date of Unit Receipt : 04/08/2022
Date of Test : 05/08/2022
Date of Issue : 05/08/2022

Customer Name and Address:

Comtech Enterprises, T-29/8B/1B, 2nd Floor, Baljeet Nagar, West Patel, Near 20 No. Road Delhi-110008, Delhi

Testing Laboratory Name and Address:

Testing Lab, Bhagwati Products Ltd., Bhiwadi Plot No. SP/1 Karoli. Ind. Area, Khushkhera, Distt:- Alwar (Rajasthan)

Test Standards:

The test standards adhered to in this test were: IS 1391 : Part 2 : 2018 4th Amendment June 2021.

Test Method:

The cooling capacity test was conducted using a psychometric calorimeter method was employed for the test.

Description of the Sample:

We received the Split air-conditioner, sample was physically checked and found in good condition.

Prepared By :

(Pankaj Saini)

Technical Manager

Approved By :

(Asghar Rashid)

Lab Head





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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

ULR NO. : TC95132200000037F
Test Report No : BPL/2022/08/001
UUT No : UUTBPLACLAB00003

2. Details of sample tested:

Brand Name : INDCOOL
Model : IDCACSN18K3
Indoor Unit Model No. : IDCACSN18K3
Indoor Unit Serial No. : IDCACI180822I00001
Outdoor Unit Model No. : IDCACSN18K3
Outdoor Unit Serial No. : IDCACI180822O00001

Test Standard	Test Standard: IS1391(Part 2): 2018 Standard incorporating Amendment 4, June 2021		
Rated standard Cooling at full Capacity (W)	5100	Rated Standard Cooling at 50% of full Capacity (W)	2550
Rated Power Consumption at Standard Cooling at full Capacity (W)	1650	Rated Power Consumption at Standard Cooling at 50% of full Capacity (W)	630
Rated Frequency at standard cooling at full Capacity (Hz)	64	Frequency setting at standard at 50% of full Capacity (Hz)	26
Rated CSEC (kWh)	1030.10	Rated CSTL (kWh)	3947.86
Rated ISEER	3.83	Star rating	3
Refrigerant Type	R32	Refrigerant Qty (gm)	630gm
Copper tube size	1/4" & 1/2"	Copper tube length in meter	3


Prepared By :

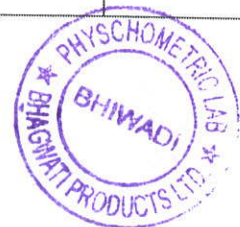
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Technical Manager


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Lab Head





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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

ULR NO. : TC951322000000037F
 Test Report No : BPL/2022/08/001
 UUT No : UUTBPLACLAB00003

3. Measuring Equipment/ Instruments Details

Sr No.	Instrument/ Equipment Name	Make	Accuracy/ Expended Uncertainty	Range	Validity
1	Psychrometric calorimeter method	TESTING LAB, BHAGWATI PRODUCTS LTD.	±0.77% for Capacity ±1.49% for Power	500 W to 10550 W	NABL Accreditation valid upto 09/05/2023

4. Test Conditions

a) Temperature Settings

Psychrometric Air Temperatures, °C. Adjacent to inlet of Test Unit	Rated	Results
Indoor Dry bulb (°C)	27±0.3	27.0
Indoor Wet bulb (°C)	19±0.2	19.0
Outdoor Dry bulb (°C)	35±0.3	35.0
Outdoor Wet bulb (°C)	Not Specified	NA

b) Electrical Input

Test voltage (V)	230.00 ±1%	230.18
Frequency (Hz)	50.00 ±1%	50
Current at Cooling capacity (A)	7.17	7.14
Current at 50% Cooling capacity (A)	4.27	4.273
Power Factor	--	0.993

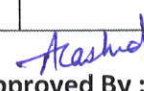
c) Frequency Setting

	Standard cooling at full capacity (Rated)	Standard cooling at 50% of full capacity (Rated)
Frequency setting (Hz)	64	26

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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

ULR NO : TC951322000000037F
 Test Report No : BPL/2022/08/001
 UUT No : UUTBPLACLAB00003

Testing Frequency Setting Method :

Full Load Capacity

1. Switch on the AC.
2. Remote setting to be done as :- Mode - " COOL", Fan Speed- "High"& setting temperature - " 16°C"
3. Press "Health" button for 10 sec & set temp. 31°C

Half Load Capacity

1. Switch on the AC.
2. Remote setting to be done as :- Mode - " COOL", Fan Speed- "High"& setting temperature - " 16°C "
3. Press "Health" button for 10 sec & set temp. 32°C

5. Test Results

(a) Measured Input Values (at 35°C)

Sensible Cooling at full Capacity (W)	W	3668.2	Sensible Cooling at 50% of full Capacity (W)	W	2518.7
	Btu/Hr	12519.6		Btu/Hr	8596.3
Latent Cooling at full Capacity (W)	W	1475.5	Latent Cooling at 50% of full Capacity (W)	W	0
	Btu/Hr	5035.8		Btu/Hr	0
Standard Cooling Capacity at full capacity (W)	W	5143.7	Standard Cooling Capacity at 50% full of capacity (W)	W	2518.7
	Btu/Hr	17555.44		Btu/Hr	8596.3
Power Consumption at standard cooling at full capacity (W)	W	1625.51	Power Consumption at standard cooling at 50% of full capacity (W)	W	628.50

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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

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ULR NO : TC951322000000037F
Test Report No : BPL/2022/08/001
UUT No : UUTBPLACLAB00003

(b) Measured Input Values (at 29°C)


Standard Cooling Capacity at full capacity (W)	5540	Standard Cooling Capacity at 50% of full capacity (W)	2713
Power Consumption at standard cooling at full capacity (W)	1486	Power Consumption at 50% of standard cooling at full capacity (W)	574

(c) Air Flow

Air Flow (m ³ /min)	13.51
--------------------------------	-------

(d) Calculated & Rated Values

Parameter	Calculated	Rated
CSTL (kWh)	3981.69	3947.86
CSEC (kWh)	1032.37	1030.10
ISEER	3.86	3.83
Star Rating	3	3


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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

ULR NO : TC951322000000037F
Test Report No : BPL/2022/08/001
UUT No : UUTBPLACLAB00003

Observation/Remarks:

- (1) Cooling capacity is **100.9 %** of rated capacity
- (2) Default temperature setting of the room air conditioner is 24 degree Celsius - **Yes**
- (3) Fan Speed: **Turbo**

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Note: The results relate only to the item tested.

-: End of test Report




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TESTING LAB, BHAGWATI PRODUCTS LTD.



Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)

Test Report

Maximum Operating Condition Test for Split Type Air Conditioner

1. General Information

ULR NO : TC951322000000038F
Test Report No : BPL/2022/08/002
UUT NO : UUTBPLACLAB00003
Date of Unit Receipt : 04/08/2022
Date of Test : 06/08/2022
Date of Issue : 06/08/2022

Customer Name and Address:

Comtech Enterprises, T-29/8B/1B, 2nd Floor, Baljeet Nagar, West Patel, Near 20 No. Road Delhi-110008, Delhi

Testing Laboratory Name and Address:

Testing Lab, Bhagwati Products Ltd., Bhiwadi Plot No. SP/1 Karoli. Ind. Area, Khushkhera, Distt:- Alwar (Rajasthan)

Test Standards:

The test standards adhered to in this test were: **IS 1391 : Part 2 : 2018 4th Amendment June 2021.**

Test Method:

The cooling capacity test was conducted using a psychrometric calorimeter method was employed for the test.

Description of the Sample:

We received the Split air-conditioner, sample was physically checked and found in good condition.



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Authorized By:

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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical

Group: Heating, Ventilating, and Air Conditioning (HVAC)


ULR NO. : TC951322000000038F
Test Report No : BPL/2022/08/001
UUT No : UUTBPLACLAB00003


2. Details of sample tested:

Brand Name : INDCOOL
Model : IDCACSN18K3
Indoor Unit Model No. : IDCACSN18K3
Indoor Unit Serial No. : IDCACI180822I00001
Outdoor Unit Model No. : IDCACSN18K3
Outdoor Unit Serial No. : IDCACI180822O00001

Test Standard	Test Standard: IS1391(Part 2): 2018 Standard incorporating Amendment 4, June 2021		
Rated standard Cooling at full Capacity (W)	5100	Rated Standard Cooling at 50% of full Capacity (W)	2550
Rated Power Consumption at Standard Cooling at full Capacity (W)	1650	Rated Power Consumption at Standard Cooling at 50% of full Capacity (W)	630
Rated Frequency at standard cooling at full Capacity (Hz)	64	Frequency setting at standard at 50% of full Capacity (Hz)	26
Rated CSEC (kWh)	1030.10	Rated CSTL (kWh)	3947.86
Rated ISEER	3.83	Star rating	3
Refrigerant Type	R32	Refrigerant Qty (gm)	630gm
Copper tube size	1/4" & 1/2"	Copper tube length in meter	3


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TESTING LAB, BHAGWATI PRODUCTS LTD.

Document No.: 7.8F-01

Discipline: Mechanical


Group: Heating, Ventilating, and Air Conditioning (HVAC)

ULR NO. : TC951322000000038F
Test Report No : BPL/2022/08/002
UUT No : UUTBPLACLAB00003

3. Test Results

Parameters	Rated/ Specifications				
Test Unit Voltage (V)	Standard Specified $\pm 1\%$	207		253	
Voltage Frequency (Hz)	$50 \pm 1\%$	50	50	50	50
Duration		1 hr	1 hr	1 hr	1 hr
Indoor Dry Bulb ($^{\circ}\text{C}$)	$35 \pm 0.5^{\circ}\text{C}$	35	35	35	35
Indoor Wet Bulb ($^{\circ}\text{C}$)	$24 \pm 0.5^{\circ}\text{C}$	24	24	24	24
Outdoor Dry Bulb ($^{\circ}\text{C}$)	$46 \pm 0.5^{\circ}\text{C}$	46	46	46	46
Outdoor Wet Bulb ($^{\circ}\text{C}$)	Not specified	27	27	27	27
Current (A)	Not specified	8.834	8.823	8.176	8.185




Prepared By:

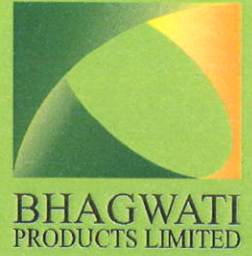
(Pankaj Saini)
Technical Manager


Authorized By:

(Asghar Rashid)
Lab Head



TC-9513



Observation:

1. Machine run for the above mentioned condition for one hour at **207 volt**. After 2 hour power was cut off for 3 minutes and then restored. Voltage rise during the switching off the machine was less than 3%. Machine started without any abnormal sound and run continuously for 1 hour after restart without any tripping.
2. Machine run for the above mentioned condition for 1 hour at **253 volt**. After 2 hour power was cut off for 3 minutes and then restored. Voltage rise during the switching off the machine was less than 3%. Machine started without any abnormal sound and run continuously for 1 hour after restart without any tripping.

Conclusion:

Test Sample was tested to the Maximum Operating Condition Test as per test Standard **IS 1391 : Part 2 : 2018 4th Amendment June 2021**.

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Note: The results relate only to the item tested.

-: End of test Report



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