



Form II – (B)

[See regulation 7 (5)]

**Permission/renewal of permission to affix label on room air conditioners under the Bureau of Energy Efficiency
(Particulars and Manner of their Display on Label of Room Air Conditioner) Regulations, 2017**

No. BEE/COM/02/0011/19/22/0022/WAC

Bureau of Energy Efficiency

New Delhi, Dated - 21-11-2022 10:15:16

To,

MR DHANANJAI SINGH [PROPRIETOR]

COMTECH ENTERPRISES

T298B1B 2ND FLOOR BALJEET NAGAR

WEST PATEL NAGAR NEAR 20 No ROAD Delhi -110008 Delhi

Mb:- 8826605031 Fax no:- 011- 25864267

1. Pursuant to the provisions of regulation 7 of the Bureau of Energy Efficiency (Particulars and Manner of their Display on Labels of Room air conditioners) Regulations, 2017, the Bureau hereby permits you to affix label as per details of approvals set out in the Annexure D to this letter.
2. This permission is subject to-
 - (a) The star level displayed on the label of the room air conditioner shall conform to energy consumption standards for room air conditioner notified under clause (a) of section 14 of the Act and terms and conditions provided in the aforesaid regulations.
 - (b) the label shall be affixed only on such model of Room Air Conditioner (Variable Speed) / Split air conditioner for which permission has been granted;
 - (c) the label shall be printed and affixed on the Room Air Conditioner (Variable Speed) at the cost of the permittee;
 - (d) the permittee shall ensure that the star level displayed on the label of Room Air Conditioner (Variable Speed) / Split air conditioner shall be maintained at all time;
 - (e) the permittee shall pay the label fee of rupees 30 per label;
 - (f) the permittee shall furnish to the Bureau a statement containing details of production of labelled equipment and the accrued labelling fee due for each quarter within the following month of the close of each quarter of the financial year. The same details shall be furnished to the Bureau also through automated system.
 - (g) The same details shall be furnished to the Bureau also through automated system.
 - (h) the permittee shall make available such other details of Room Air Conditioner (Variable Speed) / Split air conditioner as and when sought by the Bureau for which the permission has been granted.
3. This permission shall be valid for from **19th November, 2022 to 31st December, 2024** and may be renewed as prescribed. You shall not withdraw the Room Air Conditioner (Variable Speed) from the market during the validity period of permission except with the prior approval of the Bureau.
4. Signed, sealed and dated this **21** day of **11** month **2022** year

For Secretary

BUREAU OF ENERGY EFFICIENCY

Signed by: Pravatnalini Samal
Date: 21-11-2022 10:15:18
Approved
Director (PS) BEE

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएँ Save Energy for Benefit of Self and Nation



Annexure D
[See para 1 of Form II-(B)]
Details of Approvals

1. Details of the Equipment

| | |
|---|-----------------------|
| Application ID | 161347 |
| Trade Mark (s)/Brand Name(s) | INDCOOL |
| Type of Room Air Conditioner: Unitary/Split | Split air conditioner |
| Cooling Capacity (Watts) | 6900 |
| Power Input of Room Air Conditioner | 1050 |
| Year of manufacturing | 2022 |

(b) Technical specification:

| Sl.No | Measured values | Rated values |
|-------|---|--|
| 1. | Standard cooling at full capacity (W) 6940.80 | Standard Cooling at full capacity (W) 6900 |
| 2. | Standard cooling at fifty per cent. of full capacity (W) 3450.56 | Standard cooling at fifty per cent. of full capacity (W) 3450 |
| 3. | Power consumption (in W) at Standard cooling at full capacity 1049.67 | Power consumption (in W) at standard cooling at full capacity 1050 |
| 4. | Power consumption (in W) at standard cooling at fifty per cent. of full capacity 704.65 | Power consumption (in W) at standard cooling at fifty per cent. of full capacity 705 |
| 5. | Frequency (in Hz) at standard cooling at full capacity 86.5 | Frequency (in Hz) at standard cooling at full capacity 86.5 |
| 6. | Frequency setting (in Hz) at standard cooling at fifty per cent. of full capacity 37 | Frequency setting (in Hz) at standard cooling at fifty per cent. of full capacity 37 |
| 7. | Cooling seasonal energy consumption in kWh 908.16 | Cooling seasonal energy consumption in kWh 905.8 |
| 8. | Cooling seasonal total load in kWh 5372.81 | Cooling seasonal total load in kWh 5341.23 |
| 9. | Indian seasonal energy efficiency ratio that is, Cooling seasonal total load / Cooling seasonal energy consumption 5.92 | Indian seasonal energy efficiency ratio that is, Cooling seasonal total load / Cooling seasonal energy consumption 5.9 |

2. Label Details

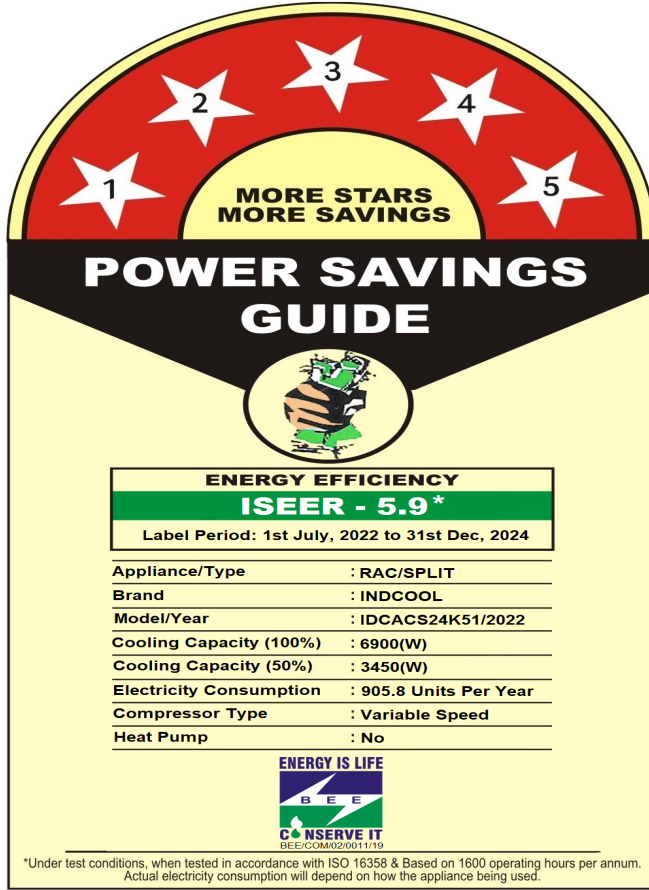
| | |
|---|----------------------------------|
| Name of the manufacturer/importer/brand | INDCOOL |
| Model and year of manufacturing | IDCACS24K5I / 2022 |
| Star level | 5 Star |
| Cooling capacity (hundred per cent.) | 6900 |
| Cooling capacity (fifty per cent.) | 3450 |
| Electricity consumption in units per year | 905.8 |
| Variable speed compressor (yes/no) | Yes |
| Heat pump (yes/no) | No |
| Label period | 01-07-2022 - 31-12-2024 |
| Unique series code | <u>BEE/COM/02/0011/19</u> |

Signed by: Pravatnalini Samal
Date: 21-11-2022 10:15:18
Approved
Director (PS) BEE

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएँ Save Energy for Benefit of Self and Nation



- The label design, size, colour scheme, material to be used for the label and the content of the label and colour scheme of the Bureau's logo shall be as specified in the Schedule to these regulations.
- Specimen of the label duly approved by the Bureau to be affixed on the room air conditioner is shown below (Separate specimens for family of models is annexed).



The unique label series code provided in the letter has to be mentioned in the label affixed on the room air conditioner.

Date:21-11-2022

Name: PRAVATANALINI SAMAL

Designation: Director

For and on behalf of: Secretary

(Name of the firm)

SEAL OF FIRM

प्रभातनलिनी सामल
PRAVATANALINI SAMAL
निदेशक/Director
ऊर्जा दक्षता ब्यूरो
Bureau of Energy Efficiency
भारत सरकार/Govt. of India
विद्युत मंत्रालय/Ministry of Power
नई दिल्ली/New Delhi-110066

Signed by:Pravatanalini Samal
Date:21-11-2022 10:15:18
Approved
Director (PS) BEE

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएँ Save Energy for Benefit of Self and Nation

Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh

Test Laboratory Discipline: Electrical Testing

Test Laboratory Group: Domestic Electrical Appliances

Test Report
Cooling Capacity Test for Split Type (Inverter) Air Conditioner

1. General Information

| | | | |
|----------------------|---|-----------------|------------------|
| Laboratory Name | Testing Laboratory, Ezentech India Pvt. Ltd. | | |
| Address | Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh. | | |
| Date of Unit Receipt | 03.01.2022 | | |
| Test Report No. | 202201060004178 | | |
| ULR | TC959622000000001F | Date Of Testing | 06.01.2022 |
| UID | ES0601E001 | Date Of Issued | 07.01.2022 |
| Tested By | Ashu Singh | Approved By | Prashant Rajaura |

2. Details of the Sample Tested

| | | | |
|-------------------------|---|-------------------------|-------------------|
| Customer Name / Address | Comtech Enterprises, T-29/78, 2nd Floor Baljeet Nagar New Delhi -110008 | | |
| Brand | INDCOOL | Year Of Manufacture | 2022 |
| Indoor Model No. | IDCACS24K5I | Outdoor Model No. | IDCACS24K5I |
| Indoor Serial No. | IDCACS24K5I2001 | Outdoor Serial No. | ODIDCACS24K5I2001 |
| Refrigerant Type | R-32 | Refrigerant charged (g) | 890 |
| Test Standard | IS 1391 (Part 2): 2018, Standard Incorporating Amendment 4, June-2021. | | |

| | | | |
|---|----------------|--|---------|
| Standard Cooling at Full Capacity (W) | 6900 | Standard Cooling at 50% of Full Capacity (W) | 3450 |
| Rated Power Consumption (in W) at Standard Cooling at Full Capacity | 1050 | Rated Power Consumption (in W) at Standard Cooling at 50% of Full Capacity (W) | 705 |
| Rated Frequency (in Hz) at Standard Cooling at Full Capacity | 86.5 | Rated Frequency (in Hz) at Standard Cooling at 50% of Full Capacity | 37 |
| Rated Power Supply (V, Hz, Ø) | 230V, 50Hz, 1Ø | Nominal Current (A) | 9.11 |
| Rated CSEC (kwh) | 902.8 | Rated CSTL (kwh) | 5341.23 |
| Rated ISEER | 5.90 | Star Rating | 5 Star |

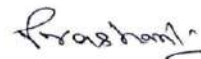
Tested By



(Lab Engineer)



Approved By



(Technical Manager)

Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh

Test Report No.: 202201060004178

ULR : TC95962200000001F

3. Measuring Equipment and Instruments details

| Sr. No. | Instrument / Equipment Name | Make | Accuracy Class | Range | Cal. Valid Date |
|---------|----------------------------------|--|-------------------------------------|-------------------|---|
| 1. | Psychrometric Calorimeter Method | Testing Laboratory, Ezentech India Pvt. Ltd. | ± 2% for Capacity ± 2% for Power | 2500 W to 12000 W | NABL Accreditation valid until 13.06.2023 |

4. Test Condition

a) Temperature settings

| Parameters | Specification/Tolerance | Observation | | |
|-----------------------|-------------------------|-------------|---------|-------------|
| | | Min(°C) | Max(°C) | Average(°C) |
| Indoor Dry Bulb (°C) | 27.00 ± 0.3°C | 27.00 | 27.02 | 27.01 |
| Indoor Wet Bulb (°C) | 19.00 ± 0.2°C | 19.0 | 19.00 | 19.00 |
| Outdoor Dry Bulb (°C) | 35.00 ± 0.3°C | 34.99 | 35.02 | 35.00 |
| Outdoor Wet Bulb (°C) | Not Applicable | -- | -- | -- |
| Fan Setting | Turbo | | | |

b) Electrical Input

| | | |
|---------------------------------|----------------|--------|
| Supply Voltage (V) | 230.00 ± 1.0 % | 230.37 |
| Supply Frequency (Hz) | 50.00 ± 1.0 % | 50.00 |
| Current at Full Capacity (amps) | 9.11 | 9.112 |
| Current at 50% of Full Capacity | -- | -- |
| Power Factor | 0.963 | |

c) Frequency settings

| | Standard Cooling at Full Capacity (Rated) | Standard Cooling at 50% of Full Capacity (Rated) |
|---------------------------|---|--|
| Frequency setting (in Hz) | 86.5 | 37 |

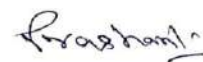
Tested By



(Lab Engineer)



Approved By



(Technical Manager)

Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh

Test Report No.: 202201060004178

ULR : TC959622000000001F

Testing Frequency Setting Method:

Full Load Capacity

1. Switch on the AC and wait for compressor start working.
2. Remote setting to be done as:- Mode- "COOL", Fan Speed-"High" & Setting Temperature- "16°C"
3. Press "DISPLAY" button for 8 times with in 10 sec.

Half Load Capacity

1. Switch on the AC and wait for compressor start working.
2. Remote setting to be done as:- Mode- "COOL", Fan Speed-"High" & Setting Temperature- "17°C"
3. Press "DISPLAY" button for 8 times with in 10 sec

5. Test Results

a) Measured input values (at 35°C)

| | | | |
|--|---------|---|---------|
| Standard cooling at full Capacity (W) | 6940.80 | Standard cooling at 50% of Full Capacity (W) | 3450.56 |
| Sensible cooling at full Capacity (W) | 5552.64 | Sensible cooling at 50% of Full Capacity (W) | 2760.44 |
| Latent cooling at full Capacity (W) | 1388.16 | Latent cooling at 50% of Full Capacity (W) | 690.12 |
| Power consumption(in W) at standard Cooling at full capacity | 1049.67 | Power consumption(in W) at standard Cooling at 50% of Full capacity | 704.65 |

b) Calculated input values (29°C)

| | | | |
|--|------|---|------|
| Standard cooling at full Capacity (W) | 7475 | Standard cooling at 50% Capacity (W) | 3716 |
| Power consumption(in W) at standard Cooling at full capacity | 959 | Power consumption(in W) at standard Cooling at 50% of Full Capacity | 644 |

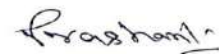
Tested By



(Lab Engineer)



Approved By



(Technical Manager)

Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh

Test Report No.: 202201060004178

ULR : TC959622000000001F

c) Air Flow

| | |
|-----------------------------|--------|
| Airflow(M ³ /Hr) | 923.14 |
|-----------------------------|--------|

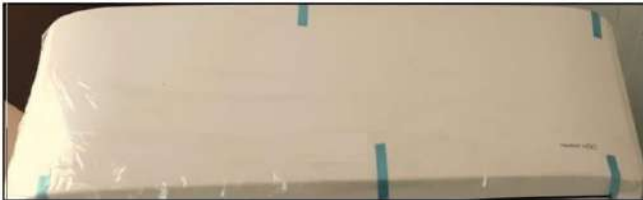
d) Calculated & Rated Values

| Parameters | Calculated | Rated |
|-------------|------------|---------|
| CSTL (kWh) | 5372.81 | 5341.23 |
| CSEC (kWh) | 908.16 | 902.8 |
| ISEER | 5.92 | 5.9 |
| Star Rating | 5 Star | 5 Star |

Conclusion:

1. The measured total cooling capacity is 101.33% of the rated cooling capacity.
 2. Test Samples conforms to the Cooling Capacity test as per test Standard **IS 1391(Part2):2018, Standard Incorporating Amendment 4, June-2021.**
 3. The test covered under the mandatory BEE Star Labeling Program at 24°C as per the **S.O. 2527(E)** and **S.O. 2528(E)** dated 8th August-2017.
- **Default temperature setting of the room air conditioner at 24 °C: YES**

Product Pictorial:




Indoor Unit



Outdoor Unit

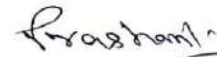
Tested By



(Lab Engineer)



Approved By



(Technical Manager)

Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh

Test Report No.: 202201060004178

ULR : TC959622000000001F

Product Rating Label:

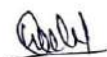
| 24K IDU Name Plate Data | |
|-------------------------|--------------------------|
| Serial No. | IDCACS24K5I2001 |
| Model Name | IDCACS24K5I |
| Operating Mode | Cooling |
| Rated Voltage | 230 V |
| Rated Frequency | 50 Hz / 1 ϕ |
| Cooling Capacity | 6900 Watt |
| Air Flow Volume | 923.14 M ³ /H |

| 24K ODU Name Plate Data | |
|--------------------------|-------------------|
| Serial No. | ODIDCACS24K5I2001 |
| Model Name | IDCACS24K5I |
| Operating Mode | Cooling |
| Rated Voltage | 230 V |
| Rated Input Current | 9.11 A |
| Rated Frequency | 50 Hz / 1 ϕ |
| Cooling Capacity(100%) | 6900 Watt |
| Cooling Capacity(50%) | 3450 Watt |
| Rated Power Input (100%) | 1050 Watt |
| Rated Power Input (50%) | 705 Watt |
| Refrigerant | R-32 |
| Refrigerant Charge | 890 |

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-----End of Test Report-----

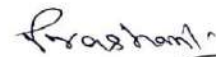
Tested By



(Lab Engineer)



Approved By



(Technical Manager)

Discipline: Electrical Testing

Group: Domestic Electrical Appliances

Test Report: The Maximum Operating Test for Split Type (Inverter) Air Conditioner

1. General Information

| | | | |
|----------------------|---|-----------------|------------------|
| Laboratory Name | Testing Laboratory, Ezentech India Pvt. Ltd. | | |
| Address | Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida- 201306, Uttar Pradesh. | | |
| Date of Unit Receipt | 03.01.2022 | | |
| Test Report No. | 202201060004178 | | |
| ULR | TC959622000000002F | Date Of Testing | 06.01.2022 |
| UID | ES0601E001 | Date Of Issued | 07.01.2022 |
| Tested By | Ashu Singh | Approved By | Prashant Rajaura |

2. Details of the Sample Tested

| | | | |
|-------------------------|---|--------------------------|-------------------|
| Customer Name / Address | Comtech Enterprises, T-29/78, 2nd Floor Baljeet Nagar New Delhi -110008 | | |
| Brand | INDCOOL | Year Of Manufacture | 2022 |
| Indoor Model No. | IDCACS24K5I | Outdoor Model No. | IDCACS24K5I |
| Indoor Serial No. | IDCACS24K5I2001 | Outdoor Serial No. | ODIDCACS24K5I2001 |
| Refrigerant Type | R-32 | Refrigerant charged (gm) | 890 |

| | | | |
|---|----------------------|--|---------|
| Standard Cooling at Full Capacity (W) | 6900 | Standard Cooling at 50% of Full Capacity (W) | 3450 |
| Rated Power Consumption (in W) at Standard Cooling at Full Capacity | 1050 | Rated Power Consumption (in W) at Standard Cooling at 50% of Full Capacity (W) | 705 |
| Rated Frequency (in Hz) at Standard Cooling at Full Capacity | 86.5 | Rated Frequency (in Hz) at Standard Cooling at 50% of Full Capacity | 37 |
| Rated Power Supply (V, Hz, ϕ) | 230V, 50Hz, 1 ϕ | Nominal Current (A) | 9.11 |
| Rated CSEC (kwh) | 902.8 | Rated CSTL (kwh) | 5341.23 |
| Rated ISEER | 5.90 | Star Rating | 5 Star |

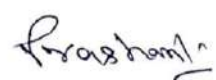
Tested By



Hira Lal
(Lab Engineer)



Approved By



Prashant Rajaura
(Technical Manager)

Test Report No.: 202201060004178

ULR No.: TC959622000000002F

3. Measuring Equipment and Instruments details

| Sr. No. | Instrument / Equipment Name | Make | Accuracy Class | Range | Cal. Valid Date |
|---------|----------------------------------|--|-------------------------------------|-------------------|---|
| 1 | Psychrometric Calorimeter Method | Testing Laboratory, Ezentech India Pvt. Ltd. | ± 2% for Capacity ± 2% for Power | 2500 W to 12000 W | NABL Accreditation valid until 13.06.2023 |

4. Test Condition

| Parameters | Specifications | | | | |
|-----------------------|-----------------------|-----|-----|-----|-----|
| Test Unit Voltage(V) | Standard Specified±1% | 207 | | 253 | |
| Voltage Frequency(Hz) | 50±1% | 50 | 50 | 50 | 50 |
| Duration | | 1Hr | 1Hr | 1Hr | 1Hr |

| | | | | | |
|----------------------|----------------|-------|-------|-------|-------|
| Indoor Dry Bulb(°C) | 35±0.5°C | 35.00 | 35.02 | 35.00 | 35.00 |
| Indoor Wet Bulb(°C) | 24±0.5°C | 24.00 | 24.00 | 24.00 | 24.00 |
| Outdoor Dry Bulb(°C) | 46±0.5°C | 46.03 | 46.02 | 46.01 | 46.00 |
| Outdoor Wet Bulb(°C) | Not Applicable | -- | -- | -- | -- |

Observations:

1. Machine run for the above mentioned condition for one hour at **207 Volt**. After one 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 one hour at **253 Volt**. After one 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.

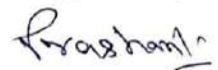
Tested By



Hira Lal
(Lab Engineer)



Approved By



Prashant Rajaura
(Technical Manager)

Test Report No.: 202201060004178
ULR No.: TC959622000000002F

Conclusions:

1. Test sample was tested to the Maximum Operating Test and it is passed as per Test Standard IS 1391(Part2):2018 Standard incorporating Amendment 4, June-2021.

Product Pictorial:



Indoor Unit



Outdoor Unit

Product Rating Label:

| 24K IDU Name Plate Data | |
|-------------------------|--------------------------|
| Serial No. | IDCACS24K5I2001 |
| Model Name | IDCACS24K5I |
| Operating Mode | Cooling |
| Rated Voltage | 230 V |
| Rated Frequency | 50 Hz / 1ϕ |
| Cooling Capacity | 6900 Watt |
| Air Flow Volume | 923.14 M ³ /H |

| 24K ODU Name Plate Data | |
|--------------------------|-------------------|
| Serial No. | ODIDCACS24K5I2001 |
| Model Name | IDCACS24K5I |
| Operating Mode | Cooling |
| Rated Voltage | 230 V |
| Rated Input Current | 9.11 A |
| Rated Frequency | 50 Hz / 1ϕ |
| Cooling Capacity (100%) | 6900 Watt |
| Cooling Capacity (50%) | 3450 Watt |
| Rated Power Input (100%) | 1050 Watt |
| Rated Power Input (50%) | 705 Watt |
| Refrigerant | R-32 |
| Refrigerant Charge | 890 |

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-----End of Test Report-----

Tested By

Hira Lal
(Lab Engineer)



Approved By

Prashant Rajaura
(Technical Manager)