



Test Laboratory Discipline: Electrical Testing

Test Laboratory Group: Domestic Electrical Appliances

# Test Report Cooling Capacity Test for Window Type (Fixed Speed) 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	13.05.2023		
Test Report No.	202211150005385		
ULR	TC959622000000154F	Date Of Testing	15.05.2023
UID	ES1311E080	Date Of Issued	04.06.2023
Tested By	Ashu Singh	Approved By	Hira Lal

# 2. Details of the Sample Tested

Customer Name / Address	Comtech Enterprises		
	T-29/78,2 <sup>nd</sup> Floor Baljeet Nagar New Delhi-110008.		
Brand Name	INDCOOL		
Model	IDCACW24K3F	Year Of Manufacture	2023
Indoor Model No.	IDCACW24K3F		
Indoor Serial No.	IDCACW24K3F30000001		
Refrigerant Type	R-32	Refrigerant charged(gm)	1250
Test Standard	The test standards adhered to in this test was: IS 1391 (Part 1): 2017; Standard		
	Incorporating Amendment4, June2021		

Standard Cooling at Full	7050	Standard Cooling at 50%of	NA
Capacity (W)	0 Tale80.00 (0.00000)	Full Capacity (W)	993 (1990) 140
Rated Power Consumption (in		Rated Power Consumption	
W) at Standard Cooling at Full	2190	(in W) at Standard Cooling	NA
Capacity		at 50% of Full Capacity (W)	
Rated Frequency (in Hz) at		Rated Frequency (in Hz) at	
Standard Cooling at Full	NA	Standard Cooling at 50%	NA
Capacity	9	of Full Capacity	
Rated Power Supply (V, Hz, Ø)	230V, 1 Phase, 50Hz	Nominal Current (A)	8.6
Rated CSEC (kWh)	1695.29	Rated CSTL (kWh)	5457.34
Rated ISEER	3.22	Star Rating	3

**Tested By** 

(Lab Engineer)

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Approved By

(Technical Manager)

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### 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.	± 1.11% for Capacity ± 0.5% for Power	2500 W to 12000 W	NABL Accreditation valid until 13.06.2023

### 4. Test Condition

# a) Temperature settings

Parameters	Specification/Tolerance		Observat	ion
		Min(℃)	Max(°C)	Average(*C)
Indoor Dry Bulb (°C)	27.00 ± 0.3℃	27.00	27.02	27.01
Indoor Wet Bulb (°C)	19.00± 0.2℃	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.:30
Supply Frequency (Hz)	50.00±1.0 %	50.00
Current at Full Capacity (amps)	8.6	8.78
Current at 50% of Full Capacity	W-1	
Power Factor		

# c) Frequency settings

	Standard Cooling at Full Capacity (Rated)	Standard Cooling at 50% of Full Capacity (Rated)
Frequency setting (in Hz)	NA	NA

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(Technical Manager)

(Lab Engineer)

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### **Test Results**

a) Measured input values (at 35°C)

Standard cooling at full Capacity (W)	7062	Standard cooling at 50% Capacity (W)	NA
Power consumption (in W) at standard Cooling at full capacity	2210	Power consumption (in W)at standard Cooling at 50% of Full Capacity	NA
Sensible Cooling Capacity at Full Capacity (W)	5649.6	Sensible Cooling Capacity at 50% of Full Capacity (W)	NA
Latent Cooling Capacity at Full Capacity (W)	1412.4	Latent Cooling Capacity at 50% of Full Capacity (W)	NA

b.) Calculated input values (at 29°C)

Standard cooling at full Capacity (W)	7606	Standard cooling at 50% of Full Capacity (W)	NA
Power consumption (in		Power consumption (in	
W)at standard Cooling	2020	W)at standard Cooling	NA
at full capacity		at 50% of Full capacity	

#### c.) Air Flow

Airflow(M³/Hr)	923.14	

### d.) Calculated & Rated Values

Parameters	Calculated	Rated
CSTL (kWh)	5466.63	5457.34
CSEC (kWh)	1710.78	1695.29
ISEER	3.2	3.22
Star Rating	3	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 8<sup>th</sup> August-2017.

Default temperature setting of the room air conditioner at 24°C: YES

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(Lab Engineer)

**Approved By** 

(Technical Manager)

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# **Product Rating Label:**

24K Name Plate Data		
Serial No.	IDCACW24K3F30000001	
Model Name	IDCACW24K3F	
Operating Mode	Cooling	
Rated Voltage	230 V	
Rated Frequency	50 Hz/1 <del>0</del>	
Rated Current	8.6	
Cooling Capacity	7050	
Rated Power	2190	
Refrigerant	R-32	
Refrigerant Charge 1250		

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

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(Lab Engineer)

Approved By

(Technical Manager)

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**Discipline:** Electrical Testing **Group:** Domestic Electrical Appliances

## Test Report: The Maximum Operating Test for Window Type (Fixed Speed) Air Conditioner

Test Report No	202211150005386
ULR	TC959622000000156F
UID	ES1311E080
Date of Unit Receipt	13.05.2023
Date of Test	15.05.2023
Date of Issue	04.06.2023

**Customer Name and Address:** Comtech Enterprises

T-29/78,2<sup>nd</sup> Floor Baljeet Nagar New Delhi-110008.

#### **Testing Laboratory Name and Address:**

Testing Laboratory, Ezentech India Pvt. Ltd.; Plot No. 16, Udyog Kendra, Ecotech III, Greater Noida -201306, Uttar Pradesh.

**Test Standards:** The test standards adhered to in this test was: **IS 1391 (Part 1): 2017;** Standard Incorporating Amendment4, June-2021.

**Test Method:** The maximum operating test was conducted using a Psychrometric- Calorimeter method was employed for the test.

**Sample Condition:** We received the Window air conditioner sample was physically checked and found in good conditions.

Sample Detail:

Brand Name: INDCOOL

Unit Model No: IDCACW24K3F

Unit Serial No.: IDCACW24K3F30000001

#### Rated Data:

Capacity	7050	Refrigerant	R-32
Power	2190	Refrigerant Charge(gm)	1250
Power Supply	230V, 1 Phase, 50Hz, 8.6A	CSTL	5457.34
CSEC	1695.29	ISEER	3.22

**Tested By** 

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Ashu Singh (Lab Engineer)

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**Test Report No.:** 202211150005386 **ULR No.:** TC959622000000156F



Parameters	Specifications				
Test Unit Voltage(V)	Standard Specified±1%	207 253		3	
Voltage Frequency(Hz)	50±1%	50	50	50	50
Duration		1Hr	1Hr	1Hr	1Hr

Indoor Dry Bulb(°C)	35±0.5°C	35.01	35.00	34.99	35.00
Indoor Wet Bulb(°C)	24±0.5°C	24.00	23.98	24.00	24.00
				3	
Outdoor Dry Bulb(°C)	46±0.5°C	46.05	46.04	45.98	45.98
Outdoor WetBulb(°C)	27±0.5°C	26.98	27.00	27.02	27.04

### 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.

## **Conclusions:**

1. Test sample was tested to the Maximum Operating Test and it is passed as per Test Standard IS 1391(Part 1):2017 Standard incorporating Amendment 4, June-2021.

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**Tested By** 

Ashu Singh (Lab Engineer) A CAPORATORY CONTRACTOR CONTRACTO

Approved By

Hira Lal (Technical Manager)

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**Test Report No.:** 202211150005386 **ULR No.:** TC959622000000156F



# **Product Rating Label:**

241	K Name Plate Data
Serial No.	IDCACW24K3F30000001
Model Name	IDCACW24K3F
Operating Mode	Cooling
Rated Voltage	230 V
Rated Frequency	50 Hz/1 <del>0</del>
Rated Current	8.6
Cooling Capacity	7050
Rated Power	2190
Refrigerant	R-32
Refrigerant Charge	1250

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**Tested By** 

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Ashu Singh (Lab Engineer)



**Approved By** 

Hira Lal (Technical Manager)

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