

Please scan to verify the report



Page 1 of 16

No: CAC20250200005

TEST REPORT

NAME OF SAMPLE: Air Conditioner

APPLICANT: GD TCL Intelligent Heating & Ventilating Equipment Co., Ltd.

CLASSIFICATION OF TEST: Commission Test

Testing Center of TCL Air Conditioner (Zhongshan) Co., Ltd.

59 Nantou Road West, Nantou, Zhongshan, Guangdong, China



TEST REPORT

The rating and performance tests for Air-conditioner

Applicant Name..... :	GD TCL Intelligent Heating & Ventilating Equipment Co., Ltd.		
Address	NO.7 Yuanlin Road, Nantou Town, Zhongshan City, Guangdong P.R. China		
Manufacturer	GD TCL Intelligent Heating & Ventilating Equipment Co., Ltd.		
Address	NO.7 Yuanlin Road, Nantou Town, Zhongshan City, Guangdong P.R. China		
Factory	Same as applicant		
Product name.....	Air conditioner		
Trademark.....	TCL		
Model / type reference.....	TCC-48D1HWH/DVT-(C5)		
Rating and characteristics.....	220-240 V~ 60Hz		
Date of receipt of test item	2025-02-11	Date(s) of test	2025-02-11
Test specification/Standard.....	SASO 2663/2021 SASO GSO ISO 5151: 2017 ISO 16358-1 :2013/Cor 1 :2013/AMD1 :2019		
To compile	李林海		
audit.....	林艺鸣		
The director of the approval	赖福远		
Date of issue.....	2025-02-12		

This report is for the exclusive use of **TCL**'s Client and is provided pursuant to the agreement between **TCL** and its Client. **TCL**'s responsibility and liability are limited to the terms and conditions of the agreement. **TCL** assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the **TCL** name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by **TCL**. This test report relates only to the tested product, and shall not be reproduced except in full, without written approval of **TCL**.

This report by itself does not imply that the material, product, or service is or has ever been under an **TCL** certification program.

To check the authenticity of the test reports and certification. please pay attention to **TCL** digital signature with blue banner at the top of the test report.

If **TCL** digital signature could not be displayed, please get access to the website

<https://www.tcl.com/global/en/commercial-air-conditioner/reports> to verify that the report of authenticity.



The rating and performance tests for Air conditioner	
Test case verdicts	/
Test case does not apply to the test object	N.A.
Test item does meet the requirement	Pass
Test item does not meet the requirement	N.A.
Procedure deviation	N.A.
Non-standard test method	N.A.
General remarks	
The test results presented in this report relate only to the item tested.	
The test report is invalid without the official stamp of TCL.	
The test report is invalid without the signatures of Author and Reviewer.	



Brief description of the tested sample(s)		
1	Ratings	
	Rated voltage/rated voltage range (V)	220-240
	Rated frequency (Hz)	60
	Rated input (W)	Cooling (T1) : 3680 Cooling (T3) : 4730 Heating: 3750
	Rated capacity (Btu/h)	Cooling (T1) : 46000 Cooling (T3) : 42600 Heating: 51200
	Rated current (A)	Cooling (T1) :16.73 Cooling (T3) : 21.5 Heating: 17.0
2	Type of power supply	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase
3	Construction of the unit	<input checked="" type="checkbox"/> Split type <input type="checkbox"/> Single packaged type <input type="checkbox"/> Multi-split type
4	Type of the unit considering if it has the air ducts (A/C Configuration— Air Distribution)	<input type="checkbox"/> Spot <input checked="" type="checkbox"/> Single-duct <input type="checkbox"/> Double ducts <input type="checkbox"/> Non Ducted
5	The number of the indoor units if multi-split type	
6	Type of the indoor unit if split type	<input type="checkbox"/> Wall-mounted <input type="checkbox"/> Free-standing <input checked="" type="checkbox"/> Ceiling-mounted <input type="checkbox"/> Other type
7	Type of outdoor unit if split type	<input checked="" type="checkbox"/> Free-standing <input type="checkbox"/> Other type
9	Supplementary heating element	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10	Operation function	<input checked="" type="checkbox"/> Cooling mode and heating mode <input type="checkbox"/> Cooling only <input type="checkbox"/> Heating only
11	Type of the refrigerant	As attach page
12	Mass of refrigerant (kg)	As attach page
13	Compressor information	As attach page
14	Compressor stages type	<input type="checkbox"/> Fixed capacity unit <input type="checkbox"/> Two-stage capacity unit <input type="checkbox"/> Multi-stage capacity unit <input checked="" type="checkbox"/> Variable capacity unit



TCL 空调器（中山）有限公司
测试中心
TEST CENTER

Photo of nameplate:

TCL

DUCT TYPE AIR

CONDITIONER



A2L

Indoor Unit

Model	TCC-48D1HWH/DVTI-(C5)
Cooling Capacity	47000Btu/h
Heating Capacity	15000W
Rated Input	560W
Air Volume	2900m³/h
Rated Voltage	220-240V ~
Rated Frequency	60Hz
Refrigerant	R32
Weight	66kg

GD TCL INTELLIGENT HEATING & VENTILATING
EQUIPMENT CO.,LTD.No.7 Yuanlin Road,Nantou
Zhongshan, Guangdong, PR China

TCL

SPLIT TYPE AIR

CONDITIONER



A2L

Outdoor Unit

Model	TCC-48HH/DVTO-(C5)
Rated Volt	220-240V ~
Rated Frequency	60Hz
Rated Power Input(IEC60335)	5500W
Rated Current(IEC60335)	25.0A
Maximum allowable pressure	4.5MPa
Operating Pressure	Discharge 4.5MPa Suction 1.9MPa
Weight	90kg
Water Proof Protection	IPX4
Refrigerant/Charge	R32/4.0kg

GD TCL INTELLIGENT HEATING & VENTILATING
EQUIPMENT CO.,LTD.No.7 Yuanlin Road,Nantou
Zhongshan, Guangdong, PR China



Photo of the tested sample:



Photo of compressor:



Summary

Test method		Enthalpy test room
COOLING CAPACITY(T1-Full load capacity)	Total cooling capacity in Btu/h	47758
	Air conditioner power consumption in W	3742
	Energy Efficiency Ratio(EER) in Btu/h/w	12.76
COOLING CAPACITY(T1-Half load capacity)	Total cooling capacity in Btu/h	23699
	Air conditioner power consumption in W	1370
	Energy Efficiency Ratio(EER) in Btu/h/w	17.3
COOLING CAPACITY(T3)	Total cooling capacity in Btu/h	43694
	Air conditioner power consumption in W	4565
	Energy Efficiency Ratio(EER) in Btu/h/w	9.55
HEATING CAPACITY	Total cooling capacity in w	15420
	Air conditioner power consumption in W	3761
	Energy Efficiency Ratio(COP) in w/w	4.1

Test Result:☒ **Pass**☐ **Fail****Note: If failed, it shall be indicated which part it was fail in.**

1- Sample Information

Brand	TCL			
Model No.	System (if application)		TCC-48D1HWH/DVT-(C5)	
	Indoor (split system only)		TCC-48D1HWH/DVTI-(C5)	
	Outdoor (split system only)		TCC-48HH/DVTO-(C5)	
Serial number	Indoor: A00099		Outdoor: A00106	
Air-Conditioner Type	Split air conditioner			
Air Distribution	Four way			
Type of system	R32	Mass of Refrigerant (kg)		4.0
Heat transfer	Cooling mode and heating mode			
Voltage(V)	230			
Phase	1ph			
Hz	60			
Compressor	Type	Rotary		
	Brand	HIGHLY		
	Model Name	GTH420SKPC8DQ		
	Maker	SHANGHAI HIGHLY ELECTRICAL APPLIANCES CO.,LTD		
	Country of Origin	China		
Indoor Fan motor	Type	DC motor		
	Brand	Broad-ocean		
	Model	ZW511B500140L		
	Maker	ZHONGSHAN BROAD-OCEAN MOTOR CO. , LTD.		
	Country of Origin	China		
Outdoor Fan motor	Type	DC motor		
	Brand	WoLong		
	Model	WZD-A02090L-01TL		
	Maker	Wolong Electric (Ji nan) Motor Co.,Ltd		
	Country of Origin	China		
Evaporator	Volume(mm)	1215mm x 462 mm x 50.8mm		
	Type	Hydrophilic		
Condenser	Volume(mm)	1302mm x 896 mm x 54.6mm		
	Type	Hydrophilic		
Refrigerant	Type: R32	4000g		
Dimensions	Indoor(mm)	Width:1400	Depth :380	Height :800
	Outdoor(mm)	Width :950	Depth :340	Height :1330



2- Test report

2.1 Cooling capacity test (T1-Full load capacity)

Data to be recorded for Enthalpy cooling capacity tests

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	230.0
Frequency (Hz)	60
Current (A)	17.96
Power Consumption (W)	3742
Power factor	95%
Fan speed settings	super speed
Dry bulb temperature, indoor (°C)	27.00
Wet bulb temperature, indoor (°C)	19.00
Dry bulb temperature, outdoor (°C)	35.00
Wet bulb temperature, outdoor (°C)	24.00
Barometer (Pa)	101680
Indoor cooling capacity (Btu/h)	47758
Sensible cooling capacity(Btu/h)	39009
Latent cooling capacity (dehumidifying capacity) (Btu/h)	2564
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	2421
Cooling capacity (Btu/h)	47758
EER(Btu/h)/W	12.76



2.2 Cooling capacity test (T1-Half load capacity)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	230.0
Frequency (Hz)	60
Current (A)	6.68
Power Consumption (W)	1370
Power factor	94%
Fan speed settings	super speed
Dry bulb temperature, indoor (°C)	27.00
Wet bulb temperature, indoor (°C)	19.00
Dry bulb temperature, outdoor (°C)	35.00
Wet bulb temperature, outdoor (°C)	24.00
Barometer (Pa)	101260
Indoor cooling capacity (W)	6946
Sensible cooling capacity (W)	6777
Latent cooling capacity (dehumidifying capacity) (W)	170
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	2063
Cooling capacity (W)	6946
Cooling capacity (Btu/h)	23700
EER(Btu/h)/W	17.3



2.3 Test record of cooling capacity test (T3)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	230.0
Frequency (Hz)	60
Current (A)	21.84
Power Consumption (W)	4565
Power factor	96%
Fan speed settings	super speed
Dry bulb temperature, indoor (°C)	29.00
Wet bulb temperature, indoor (°C)	19.00
Dry bulb temperature, outdoor (°C)	46.00
Wet bulb temperature, outdoor (°C)	24.00
Barometer (Pa)	101860
Indoor cooling capacity (Btu/h)	43694
Sensible cooling capacity(Btu/h)	42565
Latent cooling capacity (dehumidifying capacity) (Btu/h)	1126
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	2785
Cooling capacity (Btu/h)	43694
EER(Btu/h)/W	9.55



2.4 Test record of heating capacity test (H1)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	230.0
Frequency (Hz)	60
Current (A)	18.1
Power Consumption (W)	3761
Power factor	96%
Fan speed settings	super speed
Dry bulb temperature, indoor (°C)	20
Wet bulb temperature, indoor (°C)	15
Dry bulb temperature, outdoor (°C)	7
Wet bulb temperature, outdoor (°C)	6
Barometer (Pa)	101050
Indoor heating capacity (W)	15420
Sensible heating g capacity (W)	15420
Latent heating capacity (dehumidifying capacity) (W)	0
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	3055
heating capacity W	15420
heating capacity (Btu/h)	52613
COP (Btu/h)/W	13.99



2.5 Functional Performance – Cooling&Heating

Operability at Maximum cooling conditions at 52°C	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	Result:	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Non Relevant
Operability at Minimum cooling conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input checked="" type="checkbox"/> Non Relevant
Freeze up air blockage and freeze-up drip	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Non Relevant
Condensate control and enclosure sweat performance	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Non Relevant
Operability at Maximum heating conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input checked="" type="checkbox"/> Non Relevant
Operability at Minimum heating conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input checked="" type="checkbox"/> Non Relevant
Verification of automatic defrost	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Non Relevant

2.6 Capacity tests at below condition were considered in this report.

Mode	Indoor air temperature		Outdoor air temperature		Test voltage
	Dry bulb	Wet bulb	Dry bulb	Wet bulb	
Cooling mode (T1-Full load capacity)	27	19	35	24	230V, 60Hz
Cooling mode (T1-Half load capacity)	27	19	35	24	230V, 60Hz
Cooling mode (T3)	29	19	46	24	230V, 60Hz
Temperature (H1)	20	15	7	6	230V, 60Hz



Conclusion

Cooling capacity test (for condition T1- Full load capacity)					
Mode	Rated	Tested	Verifying	Required EER	Verdict
Cooling capacity, Btu/h	46000	47758	3.8%	≥ 43700	Pass
Cooling power input, W	3680	3742	1.7%	≤ 3864	Pass
EER, Btu/W · h	12.5	12.76	2.1%	≥ 11.88	Pass
Cooling capacity test (for condition T1- Half load capacity)					
Cooling capacity, Btu/h	23000	23700	3.04%	≥ 21850	Pass
Cooling power input, W	1350	1370	1.5%	≤ 1418	Pass
EER, Btu/W · h	17.0	17.3	1.8%	≥ 16.15	Pass
Cooling capacity test (for condition T3)					
Cooling capacity, Btu/h	42600	43694	2.6%	≥ 40470	Pass
Cooling power input, W	4730	4565	-3.5%	≤ 4967	Pass
EER, Btu/W · h	9.0	9.55	6.1%	≥ 8.55	Pass
Heating capacity					
Heating capacity, W	15000	15420	2.8%	≥ 14250	Pass
Heating power input,	3750	3761	0.3%	≤ 3938	Pass
COP, WW	4.0	4.1	2.5%	≥ 3.80	Pass
CSEC (Kwh/Y):	9936				
Energy class: (base on rated EER at T1)	B				
SEER class	B				
SEER	15.0				

Cooling capacity(T1 Full load capacity)	$\geq 0.95 \times \text{rated capacity}$
Cooling power input(T1 Full load capacity)	$\leq 1.05 \times \text{rated}$
Cooling capacity(Half load capacity)	$\geq 0.95 \times \text{rated capacity}$
Cooling capacity(T3)	$\geq 0.95 \times \text{rated capacity}$
Cooling power input(T3)	$\leq 1.05 \times \text{rated}$
Heating capacity	$\geq 0.95 \times \text{rated capacity}$
Heating power input	$\leq 1.05 \times \text{rated}$
EER(T1 Full load capacity)	$\geq 0.95 \times \text{rated}$
EER(T3)	$\geq 0.95 \times \text{rated}$
COP	$\geq 0.95 \times \text{rated}$

**Nergy Rating Classification**

Table 6 – Seasonal Energy Efficiency Ratio (SEER) Classification			
Bar color	Energy class		SEER limits (Btu/W.h)
Dark green	أ	A	SEER ≥ 18.0
Green	ب	B	18.0 > SEER ≥ 15.0
Light green	ج	C	15.0 > SEER ≥ 12.5
Yellow	د	D	12.5 > SEER ≥ 10.0
Orange	هـ	E	10.0 > SEER ≥ 9.0
Red	و	F	9.0 > SEER ≥ 8.0
Dark Red	ز	G	8.0 > SEER

