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№：CAC20250200007

TEST REPORT

NAMEOF SAMPLE: Air Conditioner

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

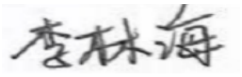
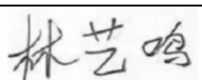
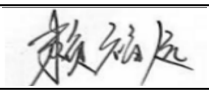
CLASSIFICATION OF TEST: Commission Test

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..... Trademark..... Model / type reference..... Rating and characteristics.....	Air conditioner TCL TCC-55D1HWH/DVT-(C5) 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		

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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.

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Brief description of the tested sample(s)		
1	Ratings	
	Rated voltage/rated voltage range (V)	230
	Rated frequency (Hz)	60
	Rated input (W)	Cooling（T1） : 4355 Cooling（T3） : 5469 Heating: 4842
	Rated capacity (Btu/h)	Cooling（T1） : 54000 Cooling（T3） : 48400 Heating: 62800
	Rated current (A)	Cooling（T1） : 19.8 Cooling（T3） : 24.8 Heating: 22.6
2	Type of power supply	☒ Single phase ☐ Three phase
3	Construction of the unit	☒ Split type ☐ Single packaged type ☐ Multi-split type
4	Type of the unit considering if it has the air ducts (A/C Configuration— Air Distribution)	☐ Spot ☒ Single-duct ☐ Double ducts ☐ Non Ducted
5	The number of the indoor units if multi-split type	
6	Type of the indoor unit if split type	☐ Wall-mounted ☐ Free-standing ☒ Ceiling-mounted ☐ Other type
7	Type of outdoor unit if split type	☒ Free-standing ☐ Other type
9	Supplementary heating element	☐ Yes ☒ No
10	Operation function	☒ Cooling mode and heating mode ☐ Cooling only ☐ 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	☐ Fixed capacity unit ☐ Two-stage capacity unit ☐ Multi-stage capacity unit ☒ Variable capacity unit

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Photo of nameplate:

TCL

DUCT TYPE AIR CONDITIONER A2L

——Indoor Unit

Model	TCC-55D1HWH/DVTI-(C5)
Cooling Capacity	54000Btu/h
Heating Capacity	18400W
Rated Input	440W
Air Volume	3300m³/h
Rated Voltage	220-240V ~
Rated Frequency	60Hz
Refrigerant	R32
Weight	66kg

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SPLIT TYPE AIR CONDITIONER A2L

——Outdoor Unit

Model	TCC-55HH/DVTO-(C5)	
Rated Volt		220-240V ~
Rated Frequency		60Hz
Rated Power Input(IEC60335)		6400W
Rated Current(IEC60335)		29.0A
Maximum allowable pressure		4.5MPa
Operating Pressure	Discharge	4.5MPa
	Suction	1.9MPa
Weight		97kg
Water Proof Protection		IPX4
Refrigerant/Charge		R32/4.2kg

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Photo of the tested sample:

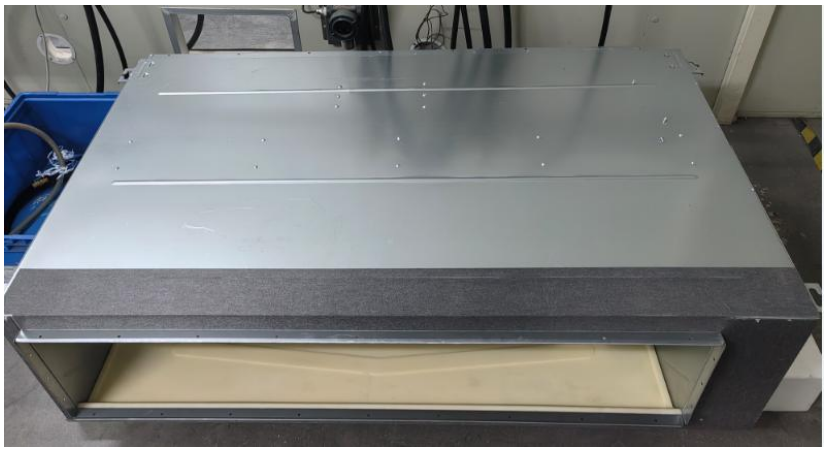

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Photo of compressor:

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Summary

Test method		Enthalpy test room
COOLING CAPACITY(T1-Full load capacity)	Total cooling capacity in Btu/h	55172
	Air conditioner power consumption in W	4323
	Energy Efficiency Ratio(EER) in Btu/h/w	12.76
COOLING CAPACITY(T1-Half load capacity)	Total cooling capacity in Btu/h	27302
	Air conditioner power consumption in W	1627
	Energy Efficiency Ratio(EER) in Btu/h/w	16.78
COOLING CAPACITY(T3)	Total cooling capacity in Btu/h	49538
	Air conditioner power consumption in W	5438
	Energy Efficiency Ratio(EER) in Btu/h/w	9.11
HEATING CAPACITY	Total cooling capacity in w	19700
	Air conditioner power consumption in W	4958
	Energy Efficiency Ratio(COP) in w/w	3.97

Test Result:

☒ **Pass** ☐ **Fail**

Note: If failed, it shall be indicated which part it was fail in.

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1- Sample Information

Brand	TCL			
Model No.	**System (if application)**	TCC-55D1HWH/DVT-(C5)		
	Indoor (split system only)	TCC-55D1HWH/DVTI-(C5)		
	Outdoor (split system only)	TCC-55HH/DVTO-(C5)		
Serial number	Indoor:	Outdoor:		
Air-Conditioner Type	Split air conditioner			
Air Distribution	Four way			
Type of system	R32	Mass of Refrigerant (kg)	4.2	
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	ZW702D000033		
	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)**	995mm x 1320 mm x 38.1mm		
	Type	Hydrophilic		
Refrigerant	**Type: R32**	4200g		
Dimensions	Indoor(mm)	Width:1400	Depth :800	Height :380
	Outdoor(mm)	Width :940	Depth :390	Height :1365

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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	230V
Applied voltage (V)	230
Frequency (Hz)	60
Current (A)	19.87
Power Consumption (W)	4323
Power factor	96%
Fan speed settings	super speed
Dry bulb temperature, indoor (℃)	27.00
Wet bulb temperature, indoor (℃)	19.00
Dry bulb temperature, outdoor (℃)	35.00
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	101.27
Indoor cooling capacity (Btu/h)	55172
Sensible cooling capacity(Btu/h)	48245
Latent cooling capacity (dehumidifying capacity) (Btu/h)	6927
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	3241
Cooling capacity (Btu/h)	55172
EER(Btu/h)/W	12.76

2.2 Cooling capacity test (T1-Half load capacity)

Test Duration(min)	90
Power supplied	230V
Applied voltage (V)	230
Frequency (Hz)	60
Current (A)	10.04
Power Consumption (W)	1627
Power factor	71%
Fan speed settings	super speed
Dry bulb temperature, indoor (℃)	27.00
Wet bulb temperature, indoor (℃)	19.00
Dry bulb temperature, outdoor (℃)	35.00
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	101.27
Indoor cooling capacity (W)	27302
Sensible cooling capacity (W)	27302
Latent cooling capacity (dehumidifying capacity) (W)	0
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	3365
Cooling capacity (W)	8002
Cooling capacity (Btu/h)	27302
EER(Btu/h)/W	16.78

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2.3 Test record of cooling capacity test (T3)

Test Duration(min)	90
Power supplied	230V
Applied voltage (V)	230
Frequency (Hz)	60
Current (A)	24.80
Power Consumption (W)	5438
Power factor	97%
Fan speed settings	super speed
Dry bulb temperature, indoor (℃)	29.00
Wet bulb temperature, indoor (℃)	19.00
Dry bulb temperature, outdoor (℃)	46.00
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	101.27
Indoor cooling capacity (Btu/h)	49538
Sensible cooling capacity(Btu/h)	49538
Latent cooling capacity (dehumidifying capacity) (Btu/h)	0
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	3405
Cooling capacity (Btu/h)	49538
EER(Btu/h)/W	9.11

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2.4 Test record of heating capacity test (H1)

Test Duration(min)	90
Power supplied	230V
Applied voltage (V)	230
Frequency (Hz)	60
Current (A)	22.66
Power Consumption (W)	4958
Power factor	96%
Fan speed settings	super speed
Dry bulb temperature, indoor (℃)	20
Wet bulb temperature, indoor (℃)	15
Dry bulb temperature, outdoor (℃)	7
Wet bulb temperature, outdoor (℃)	6
Barometer (Pa)	101.28
Indoor heating capacity (W)	19700
Sensible heating g capacity (W)	19700
Latent heating capacity (dehumidifying capacity) (W)	0
Static pressure(Pa)	50
Volume flow rate of air(m3/hr)	3379
heating capacity W	19700
heating capacity (Btu/h)	67216
COP (Btu/h)/W	13.55

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2.5 Functional Performance – Cooling&Heating

Operability at Maximum cooling conditions at 52℃	☒ Tested ☐ Declared	Result:	☒ Pass ☐ Fail ☐ Non Relevant
Operability at Minimum cooling conditions	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐ Non Relevant
Freeze up air blockage and freeze-up drip	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐ Non Relevant
Condensate control and enclosure sweat performance	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐ Non Relevant
Operability at Maximum heating conditions	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐ Non Relevant
Operability at Minimum heating conditions	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐ Non Relevant
Verification of automatic defrost	☒ Tested ☐ Declared		☒ Pass ☐ Fail ☐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

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Conclusion

Cooling capacity test (for condition T1- Full load capacity)					
Mode	**Rated**	**Tested**	**Verifying**	**Required EER**	Verdict
Cooling capacity, Btu/h	**54000**	**55172**	**2.1%**	**>=51300**	Pass
Cooling power input, W	**4355**	**4323**	**-0.8%**	**<=4572**	Pass
EER, Btu/W ·h	**12.40**	**12.76**	**2.9%**	**>=11.78**	Pass
Cooling capacity test (for condition T1- Half load capacity)					
Cooling capacity, Btu/h	/	**27302**	/	/	/
Cooling power input, W	/	**1626**	/	/	/
EER, Btu/W ·h	/	**16.79**	/	/	/
Cooling capacity test (for condition T3)					
Cooling capacity, Btu/h	**48400**	**49538**	**2.3%**	**>=45980**	Pass
Cooling power input, W	**5469**	**5438**	**-0.6%**	**<=5742**	Pass
EER, Btu/W ·h	**8.85**	**9.11**	**2.9%**	**>=8. 40**	Pass
Heating capacity					
Heating capacity, W	**18400**	**19700**	**7.1%**	**>=17480**	Pass
Heating power input,	**4842**	**4958**	**2.4%**	**<=4935**	Pass
COP, WW	**3.8**	**3.97**	**4.5%**	**>=3.61**	Pass
CSEC (Kwh/Y):		12721			
Energy class: (base on rated EER at T1)		B			
SEER class		B			
SEER		15.0			

Cooling capacity(T1 Full load capacity)	≥ 0.95 × rated capacity
Cooling power input(T1 Full load capacity)	≤ 1.05× rated
Cooling capacity(Half load capacity)	≥ 0.95 × rated capacity
Cooling capacity(T3)	≥ 0.95 × rated capacity
Cooling power input(T3)	≤ 1.05× rated
Heating capacity	≥ 0.95 × rated capacity
Heating power input	≤ 1.05× rated
EER(T1 Full load capacity)	≥ 0.95 × rated
EER(T3)	≥ 0.95 × rated
COP	≥ 0.95 × rated

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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

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