

Please scan to verify the report



TEST REPORT

NAME OF SAMPLE: Air Conditioner

APPLICANT: TCL Air Conditioner (Zhongshan) 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 .....	TCL Air Conditioner (Zhongshan) Co., Ltd.		
Address .....	59 Nantou Road West, Nantou, Zhongshan, Guangdong, China		
Manufacturer .....	TCL Air Conditioner (Zhongshan) Co., Ltd.		
Address .....	59 Nantou Road West, Nantou, Zhongshan, Guangdong, China		
Factory .....	Same as manufacturer		
Product name .....	Inverter Air conditioner		
Trademark .....	TCL		
Model / type reference .....	CW-TW18HI/V1		
Rating and characteristics. ....	230V~ 60Hz		
Date of receipt of test item	2025-05-08	Date(s) of test	2025-05-08
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.....	2025-05-08		

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 <http://hao.tcl.com/report>, 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	Fail
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.

**Test Method**

T1: Within the first 3 minutes after the indoor unit is powered on, start up and run the cooling mode, set the temperature of 30°C, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 24°C;

T1 Half capacity: Within the first 3 minutes after the indoor unit is powered on, start up and run the cooling mode, set the temperature of 30°C, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 26°C;

T3: Within the first 3 minutes after the indoor unit is powered on, start up and run the cooling mode, set the temperature of 30°C, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 28°C;

(Note: If you do not clearly hear the three short beeps of the buzzer, please power off and operate again)

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 100%Load): 1800; (T1 50%Load) : 720; Cooling (T3) :2083 Heating: 3860
	Rated capacity (Btu/h)	Cooling(T1 100%Load): 18000; (T1 50%Load) : 9000; Cooling (T3) : 15000 Heating : 3300W
	Rated current (A)	8.2
2	Type of power supply	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase
3	Construction of the unit	<input type="checkbox"/> Split type <input checked="" type="checkbox"/> Single packaged type <input type="checkbox"/> Multi-split type
4	Type of the unit considering if it has the air ducts	<input type="checkbox"/> Spot <input type="checkbox"/> Single-duct <input type="checkbox"/> Double ducts
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 type="checkbox"/> Ceiling-mounted
		<input checked="" type="checkbox"/> Other type
7	Type of outdoor unit if split type	<input type="checkbox"/> Free-standing
		<input checked="" 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



## Photo of nameplate:

<h1>TCL</h1> <h2>WINDOW AIR CONDITIONER</h2> <h3>مكيف هواء نافذة</h3>			
Model موديل		CW-TW18HI/V1	
	Cooling(T1) تبريد(تي 1)	Cooling(T3) تبريد(تي 3)	Heating التدفئة
Capacity القدرة	18000Btu/h (5.28kW)	15000Btu/h (4.41kW)	3300W
Current التيار	8.2A	9.8A	17.5A
Rated Current (IEC60335) تيار القدرة المقدرة	13.0A	13.0A	17.5A
Power Input مدخل الطاقة	1800W	2083W	3860W
Rated Power Input (IEC60335) مدخل القدرة المقدرة	2400W	2400W	3950W
EER معدل كفاءة الطاقة للتبريد	10.00 (Btu/h/W)	7.20 (Btu/h/W)	0.85 (W/W)
Air Volume حجم الهواء	800m³/h		
Maximum allowable pressure الحد الأقصى للضغط		4.5MPa	
Operating Pressure الضغط لضغط الغاز	Discharge ضغط الإطلاق	4.5MPa	
	Suction ضغط الاستشاق	1.5MPa	
Noise الضجيج	Inside الداخلي	50dB(A)	
	Outside الخارجي	60dB(A)	
Weight الوزن	43kg		
Rated Voltage/Frequency التردد/ الجهد الكهر باني		230V~ / 60Hz	
Refrigerant/Charge غاز التبريد / الكمية		R410A/0.760kg	
Outdoor Unit Water Proof Protection IPX4 درجة الحماية من الماء لمكيف الهواء الخارجي؛ Xآي بي			
Serial number: الرقم السلسل			
Made in China صنع في الصين			
شركة محدودة تكييف الهواء TCL(تشونغشان) رقم ٥٩ ، غرب شارع نانتو ، نانتو ، مدينة تشونغشان (الرقم البريدي: ٥٢٨٤٢٧) ، مقاطعة قوانغدونغ ، الصين			



Photo of the tested sample:



Photo of compressor:





## 1- Sample Information

Brand	TCL			
Model No.	System (if application)		CW-TW18HI/V1	
	Indoor (split system only)		/	
	Outdoor (split system only)		/	
Serial number	Indoor:		Outdoor: G440W0200100G3400016	
Air-Conditioner Type	Window air conditioner			
Air Distribution	Two way (Up-down)			
Type of system	R410A	Mass of Refrigerant (kg)		0.760
Heat transfer	Heating&Cooling			
Voltage(V)	230			
Phase	1ph			
Hz	60			
Compressor	Type		Variable capacity unit	
	Brand		SANYO	
	Model Name		C-1RZ140H3CBF	
	Maker		AVIC ELECTROMECHANICAL (SHENYANG)SANYO REFRIGERATION EQUIPMENT CO. , LTD CO. , LTD	
	Country of Origin		China	
Fan motor 1	Type		DC motor	
	Brand		Welling	
	Model		ZKFP-30-8-309)	
	Maker		Guangdong Welling Motor Manufacturing Co., Ltd	
	Country of Origin		China	
Fan motor 2	Type		DC motor	
	Brand		Welling	
	Model		ZKFP-45-8-111	
	Maker		Guangdong Welling Motor Manufacturing	
	Country of Origin		China	
Evaporator	Volume(mm)		550mm x 302mm x 25.4 mm	
	Type		Hydrophilic & Louver Fin; Innergroover tube type	
Condenser	Volume(mm)		560mm x 303 mm x 36.4 mm	
	Type		Louver or Corrugated Fin; Innergroover tube type	
Refrigerant	Type: R410A		760g	
Dimensions	Indoor(mm)		\	\
	Outdoor(mm)		Width :920	Depth :380 Height :699





## 2- Test report

### 2.1 Cooling capacity test (T1 100% Load)

Data to be recorded for Enthalpy cooling capacity tests

Test Duration(min)	90
Power supplied	230V~60HZ
Applied voltage (V)	230.1
Frequency (Hz)	60
Current (A)	8.19
Power Consumption (W)	1770
Power factor	94.8%
Fan speed settings	High speed
Dry bulb temperature, indoor (°C)	27.01
Wet bulb temperature, indoor (°C)	19.00
Dry bulb temperature, outdoor (°C)	35.03
Wet bulb temperature, outdoor (°C)	24.01
Barometer (KPa)	100.75
Indoor cooling capacity (Btu/h)	18310
Sensible cooling capacity (Btu/h)	15803
Latent cooling capacity (dehumidifying capacity) (Btu/h)	2507
Air-static pressure difference across separating partition of calorimeter compartments (Pa)	251
Volume flow rate of air(m3/hr)	800
Cooling capacity (Btu/h)	18310
EER(Btu/h)/W	10.345



## 2.2 Cooling capacity test (T1 50% Load)

Data to be recorded for Enthalpy cooling capacity tests

Test Duration(min)	90
Power supplied	230V~60HZ
Applied voltage (V)	230.0
Frequency (Hz)	60
Current (A)	3.37
Power Consumption (W)	728
Power factor	94.0%
Fan speed settings	High speed
Dry bulb temperature, indoor (°C)	27.01
Wet bulb temperature, indoor (°C)	19.00
Dry bulb temperature, outdoor (°C)	35.03
Wet bulb temperature, outdoor (°C)	24.01
Barometer (KPa)	100.75
Indoor cooling capacity (Btu/h)	9150
Sensible cooling capacity (Btu/h)	7390
Latent cooling capacity (dehumidifying capacity) (Btu/h)	1760
Air-static pressure difference across separating partition of calorimeter compartments (Pa)	251
Volume flow rate of air(m3/hr)	800
Cooling capacity (Btu/h)	9150
EER(Btu/h)/W	12.569



## 2.3 Test record of cooling capacity test (T3)

Test Duration(min)	90
Power supplied	230V~60HZ
Applied voltage (V)	230.1
Frequency (Hz)	60
Current (A)	9.85
Power Consumption (W)	2130
Power factor	94.1%
Fan speed settings	High speed
Dry bulb temperature, indoor (°C)	29.01
Wet bulb temperature, indoor (°C)	19.02
Dry bulb temperature, outdoor (°C)	46.00
Wet bulb temperature, outdoor (°C)	24.02
Barometer (KPa)	100.82
Indoor cooling capacity (Btu/h)	15700
Sensible cooling capacity (Btu/h)	12746
Latent cooling capacity (dehumidifying capacity)	2954
Air-static pressure difference across separating partition of calorimeter compartments (Pa)	264
Volume flow rate of air(m3/hr)	800
Cooling capacity (Btu/h)	15700
EER(Btu/h)/W	7.371



## 2.4 Test record of heating capacity test (H1)

Test Duration(min)	90
Power supplied	230V~1 Phase/ 60Hz
Applied voltage (V)	230
Frequency (Hz)	60
Current (A)	17.26
Power Consumption (W)	3850
Power factor	97.0%
Fan speed settings	High speed
Dry bulb temperature, indoor (°C)	20.02
Wet bulb temperature, indoor (°C)	15.01
Dry bulb temperature, outdoor (°C)	7.01
Wet bulb temperature, outdoor (°C)	6.00
Barometer (Pa)	100.80
Indoor heating capacity (W)	3310
Sensible heating g capacity (W)	3310
Latent heating capacity (dehumidifying capacity) (W)	/
Static pressure(Pa)	308
Volume flow rate of air(m3/hr)	753
heating capacity W	3310
COP W / W	0.86



## 2.5 Functional Performance – Cooling

Operability at Maximum cooling conditions at T3 conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	Result:	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Minimum cooling at T3 conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Freeze-up drip at T3 conditions (non-ducted AC)	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Condensate control and enclosure sweat performance	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Operability at 52 °C	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non Relevant	
Operability at minimum cooling conditions	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non Relevant	
Freeze up air blockage	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non Relevant	
Freeze-up drip	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non Relevant	
Condensate control	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non Relevant	
Enclosure sweat performances	<input checked="" type="checkbox"/> Tested <input type="checkbox"/> Declared	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <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)	27	19	35	24	230V, 60Hz
Cooling mode (T1 Half load)	27	19	35	24	230V, 60Hz
Cooling mode (T3)	29	19	46	24	230V, 60Hz
Heating mode (H1)	20	15	7	6	230V, 60Hz



## 3-Conclusion

Cooling capacity test (for condition T1 100% Load)					
Mode	Rated	Tested	Verifying	Required value	Verdict
Cooling capacity, Btu/h	18000	18310	1.72%	$\geq 17100$	Pass
Cooling power input, W	1800	1770	-0.17%	$\leq 1853$	Pass
EER, Btu/W ·h	10.00	10.345	3.45%	$\geq 9.69$	Pass
Cooling capacity test (for condition T1 50% Load)					
Cooling capacity, Btu/h	9000	9150	1.67%	$\geq 8550$	Pass
Cooling power input, W	720	728	1.11%	$\leq 756$	Pass
EER, Btu/W ·h	12.50	12.569	0.55%	$\geq 11.88$	Pass
Cooling capacity test (for condition T3)					
Cooling capacity, Btu/h	15000	15700	4.67%	$\geq 14725$	Pass
Cooling power input, W	2083	2130	2.26%	$\leq 2229$	Pass
EER, Btu/W ·h	7.20	7.371	2.37%	$\geq 6.94$	Pass
Heating capacity					
Heating capacity, W	3300	3310	0.3%	$\geq 3135$	Pass
Heating power input, W	3860	3850	-0.3%	$\leq 4053$	Pass
COP, WW	0.85	0.86	1.3%	$\geq 0.81$	Pass
Annual Energy Consumption(AEC) (kWh)	5359				
SEER	11.15				
SEER class	D				

\* Verifying limit for test T1

Cooling capacity	$\geq 0.95 \times \text{rated capacity}$
Cooling power input	$\leq 1.05 \times \text{rated}$
Heating capacity	$\geq 0.95 \times \text{rated capacity}$
Heating power input	$\leq 1.05 \times \text{rated}$
EER	$\geq 0.95 \times \text{rated}$
COP	$\geq 0.95 \times \text{rated}$

