

Please scan to verify the report



Page 1 of 16

No: PMCK20250702001

TEST REPORT

NAME OF SAMPLE: Air Conditioner

APPLICANT: SKM AIR CONDITIONING CO.

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	SKM AIR CONDITIONING CO.		
Address	4th Street, Ath Thuqbah District, AL KHOBAR, Saudi Arabia.		
Manufacturer	SKM AIR CONDITIONING CO.		
Address	4th Street, Ath Thuqbah District, AL KHOBAR, Saudi Arabia.		
Factory	TCL Air Conditioner (Zhongshan) Co., Ltd.		
Product name	Air conditioner		
Trademark	SKM AIR CONDITIONING EQUIPMENT		
Model / type reference	MSKMP-18CWTS0		
Rating and characteristics.	230V~ 60Hz		
Date of receipt of test item	2024-12-23	Date(s) of test	2024-12-23
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	2024-12-24		

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	N.A.
Procedure deviation	N.A.
Non-standard test method	N.A.
General remarks	
<p>The test results presented in this report relate only to the item tested.</p> <p>The test report is invalid without the official stamp of TCL.</p> <p>The test report is invalid without the signatures of Author and Reviewer.</p>	

[illegible]

Photo of nameplate:

 <p>اجهزة تكييف هواء AIR CONDITIONING EQUIPMENT</p> <p>SPLIT TYPE AIR CONDITIONER جهاز تكييف هواء حائط</p> <p>INDOOR UNIT مكيف الهواء الداخلي</p>	
Model موديل	MSKMP-18CWTSD0
	Cooling(T1) تبريد (تي ١)
Capacity القدرة	18000Btu/h (5.28kW)
Current التيار	6.7A
Rated Current (IEC60335) تيار القدرة المقدر	11.8A
Power Input مدخل الطاقة	1500W
Rated Power Input (IEC60335) مدخل القدرة المقدر	2613W
EER معدل كفاءة الطاقة للتبريد	12.00(Btu/h/W)
Indoor Air Volume حجم تدفق الهواء	1050m ³ /h
Maximum allowable pressure الحد الأقصى للضغط	4.5MPa
Operating Pressure الضغط	Discharge ضغط الإطلاق
Suction ضغط الاستنشاق	4.5MPa
Noise الضجيج	57dB(A)
Weight الوزن	34kg
Rated Voltage/Frequency التردد / الجهد الكهربائي	230V~ / 60Hz
FACTORY ADDRESS التردد عنوان المصنع	No.59, Nantou Road West , Nantou, Zhongshan , Guangdong , China
<p>Made in China صنع في الصين</p> <p>SKM Air Conditioning Co. شركة اس كي ام للتكييف</p> <p>4th Street, Ath Thuqbah District Al Khobar, K.S.A. شارع الرابع، حي التكية الخبر، المملكة العربية السعودية</p>	


 <p>اجهزة تكييف هواء AIR CONDITIONING EQUIPMENT</p> <p>SPLIT TYPE AIR CONDITIONER جهاز تكييف هواء حائط</p> <p>OUTDOOR UNIT مكيف الهواء الخارجي</p>	
Model موديل	MSKMP-18CWTSD0
	Cooling(T1) تبريد (تي ١)
Capacity القدرة	18000Btu/h (5.28kW)
Current التيار	6.7A
Rated Current (IEC60335) تيار القدرة المقدر	11.8A
Power Input مدخل الطاقة	1500W
Rated Power Input (IEC60335) مدخل القدرة المقدر	2613W
EER معدل كفاءة الطاقة للتبريد	12.00(Btu/h/W)
Maximum allowable pressure الحد الأقصى للضغط	4.5MPa
Operating Pressure الضغط	Discharge ضغط الإطلاق
Suction ضغط الاستنشاق	4.5MPa
Noise الضجيج	57dB(A)
Weight الوزن	34kg
Rated Voltage/Frequency التردد / الجهد الكهربائي	230V~ / 60Hz
Refrigerant/Charge غاز التبريد / الكمية	R410A/0.830kg
<p>Outdoor Unit WaterProof Protection IPX4 درجة الحماية من الماء لمكيف الهواء الخارجي X4 اي بي</p>	
FACTORY ADDRESS التردد عنوان المصنع	No.59, Nantou Road West , Nantou, Zhongshan , Guangdong , China
<p>Made in China صنع في الصين</p> <p>SKM Air Conditioning Co. شركة اس كي ام للتكييف</p> <p>4th Street, Ath Thuqbah District Al Khobar, K.S.A. شارع الرابع، حي التكية الخبر، المملكة العربية السعودية</p>	



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	18203
	Air conditioner power consumption in W	1475
	Energy Efficiency Ratio(EER) in Btu/h/w	12.341
COOLING CAPACITY(T1-Half load capacity)	Total cooling capacity in Btu/h	/
	Air conditioner power consumption in W	/
	Energy Efficiency Ratio(EER) in Btu/h/w	/
COOLING CAPACITY(T3)	Total cooling capacity in Btu/h	16163
	Air conditioner power consumption in W	1789
	Energy Efficiency Ratio(EER) in Btu/h/w	9.042
HEATING CAPACITY	Total cooling capacity in w	/
	Air conditioner power consumption in W	/
	Energy Efficiency Ratio(COP) in w/w	/

Test Result:
☒ **Pass**
☐ **Fail**

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

1- Sample Information

Brand	SKM AIR CONDITIONING EQUIPMENT			
Model No.	System (if application)	MSKMP-18CWTSD0		
	Indoor (split system only)	/		
	Outdoor (split system only)	/		
Serial number	Indoor: G440N0200100I6180001		Outdoor: G440W0200100I6180001	
Air-Conditioner Type	Split air conditioner			
Air Distribution	Four way			
Type of system	R410A	Mass of Refrigerant (kg)		0.830
Heat transfer	Cooling only			
Voltage(V)	230			
Phase	1ph			
Hz	60			
Compressor	Type	Hermetic motor-compressor		
	Brand	Highly		
	Model Name	ASL160DG-C7EU6		
	Maker	Shanghai Highly Electrical Appliances Co., Ltd.		
	Country of Origin	China		
Indoor Fan motor	Type	DC motor		
	Brand	BROAD-OCEAN		
	Model	22001-000240		
	Maker	ZHONGSHAN BROAD-OCEAN MOTOR Co. , LTD.		
	Country of Origin	China		
Outdoor Fan motor	Type	DC motor		
	Brand	BROAD-OCEAN		
	Model	22001-000493		
	Maker	ZHONGSHAN BROAD-OCEAN MOTOR Co. , LTD.		
	Country of Origin	China		
Evaporator	Volume(mm)	761mm x 336mm x 25.4 mm		
	Type	Hydrophilic & Louver Fin; Innergroover tube type		
Condenser	Volume(mm)	776mm x 566 mm x 23.2 mm		
	Type	Louver or Corrugated Fin; Innergroover tube type		
Refrigerant	Type: R410A	830g		
Dimensions	Indoor(mm)	Width:1010	Depth :315	Height :220
	Outdoor(mm)	Width :853	Depth :349	Height :602

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)	6.68
Power Consumption (W)	1475
Power factor	98.5%
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)	100.85
Indoor cooling capacity (Btu/h)	18203
Sensible cooling capacity(Btu/h)	15071
Latent cooling capacity (dehumidifying capacity) (Btu/h)	3132
Static pressure(Pa)	292.80
Volume flow rate of air(m3/hr)	1039
Cooling capacity (Btu/h)	18203
EER(Btu/h)/W	12.341

2.2 Cooling capacity test (T1-Half load capacity)

Test Duration(min)	/
Power supplied	/
Applied voltage (V)	/
Frequency (Hz)	/
Current (A)	/
Power Consumption (W)	/
Power factor	/
Fan speed settings	/
Dry bulb temperature, indoor (°C)	/
Wet bulb temperature, indoor (°C)	/
Dry bulb temperature, outdoor (°C)	/
Wet bulb temperature, outdoor (°C)	/
Barometer (Pa)	/
Indoor cooling capacity (W)	/
Sensible cooling capacity (W)	/
Latent cooling capacity (dehumidifying capacity) (W)	/
Static pressure(Pa)	/
Volume flow rate of air(m3/hr)	/
Cooling capacity (W)	/
Cooling capacity (Btu/h)	/
EER(Btu/h)/W	/

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)	8.02
Power Consumption (W)	1789
Power factor	98.9%
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)	100.88
Indoor cooling capacity (Btu/h)	16163
Sensible cooling capacity(Btu/h)	16163
Latent cooling capacity (dehumidifying capacity) (Btu/h)	0
Static pressure(Pa)	272.87
Volume flow rate of air(m3/hr)	1159
Cooling capacity (Btu/h)	16163
EER(Btu/h)/W	9.042

2.4 Test record of heating capacity test (H1)

Test Duration(min)	/
Power supplied	/
Applied voltage (V)	/
Frequency (Hz)	/
Current (A)	/
Power Consumption (W)	/
Power factor	/
Fan speed settings	/
Dry bulb temperature, indoor (°C)	/
Wet bulb temperature, indoor (°C)	/
Dry bulb temperature, outdoor (°C)	/
Wet bulb temperature, outdoor (°C)	/
Barometer (Pa)	/
Indoor heating capacity (W)	/
Sensible heating g capacity (W)	/
Latent heating capacity (dehumidifying capacity) (W)	/
Static pressure(Pa)	/
Volume flow rate of air(m3/hr)	/
heating capacity W	/
heating capacity (Btu/h)	/
COP (Btu/h)/W	/

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 type="checkbox"/> Pass <input type="checkbox"/> Fail <input checked="" 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	18000	18203	1.13%	≥ 17100	Pass
Cooling power input, W	1500	1475	-1.67%	≤ 1575	Pass
EER, Btu/W ·h	12.00	12.341	2.84%	≥ 11.80	Pass
Cooling capacity test (for condition T1- Half load capacity)					
Cooling capacity, Btu/h	/	/	/	/	/
Cooling power input, W	/	/	/	/	/
EER, Btu/W ·h	/	/	/	/	/
Cooling capacity test (for condition T3)					
Cooling capacity, Btu/h	16100	16163	0.39%	≥ 15295	Pass
Cooling power input, W	1830	1789	-2.24%	≤ 1922	Pass
EER, Btu/W ·h	8.80	9.042	2.75%	≥ 8.50	Pass
Heating capacity					
Heating capacity, W	/	/	/	/	Pass
Heating power input,	/	/	/	/	Pass
COP, WW	/	/	/	/	Pass
CSEC (Kwh/Y):	6270				
Energy class: (base on rated EER at T1)	D				
SEER class	D				
SEER	10.20				

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 \geq 18.0
Green	ب	B	18.0 > SEER \geq 15.0
Light green	ج	C	15.0 > SEER \geq 12.5
Yellow	د	D	12.5 > SEER \geq 10.0
Orange	هـ	E	10.0 > SEER \geq 9.0
Red	و	F	9.0 > SEER \geq 8.0
Dark Red	ز	G	8.0 > SEER