Please scan to verify the report

№：PMC20250305001

TEST REPORT

NAMEOF SAMPLE: Air Conditioner

APPLICANT: TCL Air Conditioner (Zhongshan) Co., Ltd.

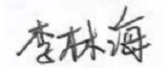
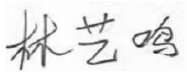
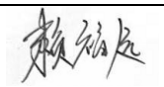
CLASSIFICATION OF TEST: Commission Test

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 applicant		
Product name ..... Trademark ..... Model / type reference ..... Rating and characteristics.	Air conditioner TCL TAC-24COSAI/XA31T 220-240V~ ,50/60Hz		
Date of receipt of test item	2025-03-05	Date(s) of test	2025-03-05
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.....	2025-03-06		

The rating and performance tests for Air conditioner	
Test case verdicts	***I***
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.

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℃, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 26℃;

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℃, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 28℃;

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℃, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 27℃;

T1 minimum 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℃, medium speed wind, press the ECO or Sleep button 7 times continuously within 8 seconds, and the buzzer beeps 3 times, then set 31℃;

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

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Brief description of the tested sample(s)		
1	Ratings	
	Rated voltage/rated voltage range (V)	220-240
	Rated frequency (Hz)	50/60
	Rated input (W)	Cooling（T1- Full load capacity） : 1875 Cooling （T1- Half load capacity） : 653 Cooling（T3） : 2298 Cooling （T1- Minimum load capacity） : 367 Heating : /
	Rated capacity (Btu/h)	Cooling（T1- Full load capacity） : 22500 Cooling （T1- Half load capacity） : 10700 Cooling（T3） : 20800 Cooling （T1- Minimum load capacity） : 6200 Heating : /
	Rated current (A)	/
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

SPLIT AIR CONDITIONER
INDOOR UNIT
مكيف هواء سبليت
وحدة داخلية

Model موديل	TAC-24COSAI/XA31T	
	Cooling(T1) تبريد(تي ١)	Cooling(T3) تبريد(تي ٣)
Capacity القدرة	22500(4094~24908)Btu/h (6.60(1.20~7.30)kW)	20800(4436~22178)Btu/h (6.09(1.30~6.50)kW)
Current التيار	8.5A (1.2~13.0)	10.4A (1.2~13.0)
Rated Current (IEC60335) تيار القدرة المقدرة	13.0A	13.0A
Power Input مدخل الطاقة	1875W (280~2900)	2298W (280~2900)
Rated Power Input (IEC60335) مدخل القدرة المقدرة	2900W	2900W
EER معدل كفاءة الطاقة للتبريد	12.00 (Btu/h/W)	9.05 (Btu/h/W)
Indoor Air Volume حجم تدفق الهواء	1450m^3/h	
Maximum allowable pressure الحد الأقصى للضغط	4.5MPa	
Operating Pressure الضغط لغاز	Discharge ضغط الإطلاق	4.5MPa
	Suction ضغط الاستنشاق	1.9MPa
Noise الضجيج	52dB(A)	
Weight الوزن	16kg	
Rated Voltage/Frequency التردد/ الجهد الكهربائي	220-240V~/50/60hz	

Serial number:
الرقم السلسل

Made in China
صنع في الصين

TCL

SPLIT AIR CONDITIONER
OUTDOOR UNIT
مكيف هواء سبليت
وحدة خارجية

Model موديل	TAC-24COSAI/XA31T	
	Cooling(T1) تبريد(تي ١)	Cooling(T3) تبريد(تي ٣)
Capacity القدرة	22500(4094~24908)Btu/h (6.60(1.20~7.30)kW)	20800(4436~22178)Btu/h (6.09(1.30~6.50)kW)
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EER معدل كفاءة الطاقة للتبريد	12.00 (Btu/h/W)	9.05 (Btu/h/W)
Maximum allowable pressure الحد الأقصى للضغط	4.5MPa	
Operating Pressure الضغط لغاز	Discharge ضغط الإطلاق	4.5MPa
	Suction ضغط الاستنشاق	1.9MPa
Noise الضجيج	60dB(A)	
Weight الوزن	37kg	
Rated Voltage/Frequency التردد/ الجهد الكهربائي	220-240V~/50/60hz	
Refrigerant/Charge غاز التبريد / الكمية	R410A/1.100kg	
Outdoor Unit Water Proof Protection IPX4 درجة الحماية من الماء لمكيف الهواء الخارجي IPX4		

Serial number:
الرقم السلسل

Made in China
صنع في الصين

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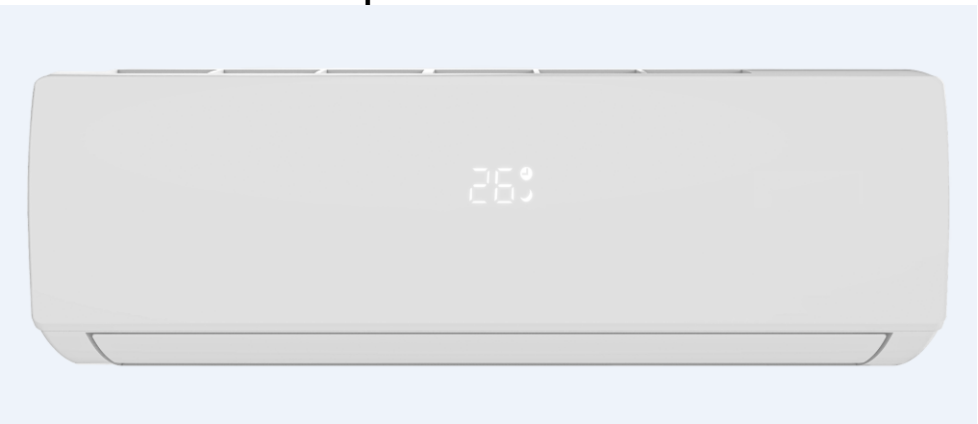
测试中心
TEST CENTER
TCL AIR CONDITIONER (ZHONGSHAN)CO.,LTD.

Photo of the tested sample:



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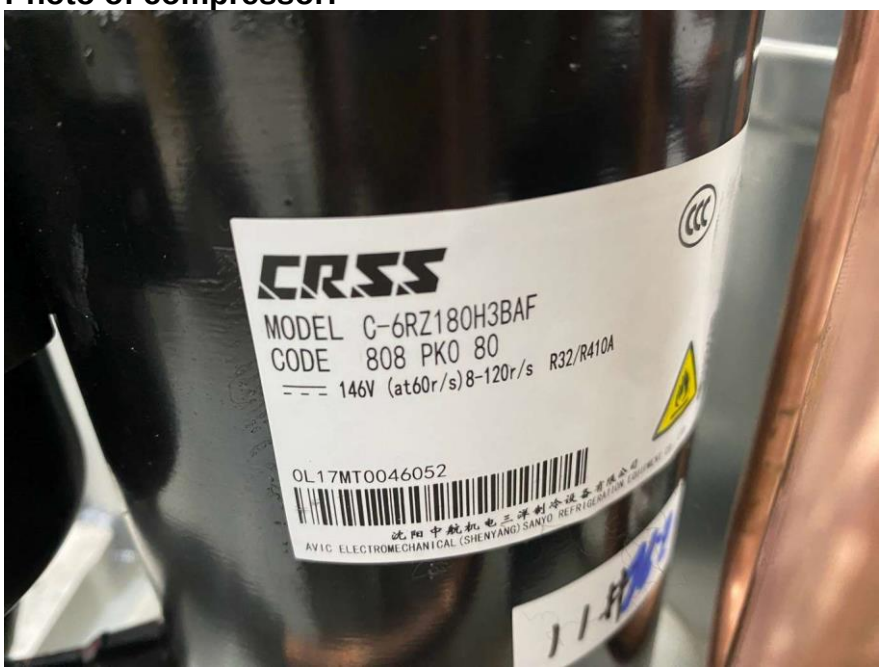
TCL AIR CONDITIONER (ZHONGSHAN) CO.,LTD.

Photo of compressor:



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TEST CENTER
TCL AIR CONDITIONER (ZHONGSHAN) CO.,LTD.

Summary

Test method		**Enthalpy test room**
COOLING CAPACITY(T1-Full load capacity)	Total cooling capacity in Btu/h	23812
	Air conditioner power consumption in W	1826
	Energy Efficiency Ratio(EER) in Btu/h/w	13.04
COOLING CAPACITY(T1-Half load capacity)	Total cooling capacity in W	11420
	Air conditioner power consumption in W	639
	Energy Efficiency Ratio(EER)	17.87
COOLING CAPACITY(T3)	Total cooling capacity in Btu/h	21496
	Air conditioner power consumption in W	2434
	Energy Efficiency Ratio(EER) in Btu/h/w	9.57
COOLING CAPACITY(T1-Minimum load capacity)	Total cooling capacity in W	6616
	Air conditioner power consumption in W	359
	Energy Efficiency Ratio(EER) in Btu/h/w	18.43
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.

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1- Sample Information

Brand	TCL				
Model No.	**System (if application)**	KT3F-58GW/YXABp(E/6)(080944)			
	Indoor (split system only)	/			
	Outdoor (split system only)	/			
Serial number	Indoor: G440N02001N124121301	Outdoor: G440W02001N124121302			
Air-Conditioner Type	Split air conditioner				
Air Distribution	Four way				
Type of system	R410A	Mass of Refrigerant (kg)	1.10		
Heat transfer	Cooling only				
Voltage(V)	220-240				
Phase	1ph				
Hz	50/60				
Compressor	**Type**	Hermetic motor-compressor			
	Brand	Sanyo			
	Model Name	C-6RZ180H3BAF			
	Maker	AVIC ELECTROMECHANICAL(SHENYANG)SANYO REFRIGERATION EQUIPMENT CO.,LTD.			
	Country of Origin	China			
Indoor Fan motor	**Type**	DC motor			
	Brand	WELLING			
	Model	ZKFP-45-8-184L			
	Maker	GUANGDONG WELLING MOTOR MANUFACTURING CO.,LTD.			
	Country of Origin	China			
Outdoor Fan motor	**Type**	DC motor			
	Brand	Wolong			
	Model	WZD-A02085L-01TL			
	Maker	Wolong Electric (Ji nan) Motor Co.,Ltd.			
	Country of Origin	China			
Evaporator	**Volume(mm)**	896mm x 399mm x 25.4 mm			
	Type	Hydrophilic & Louver Fin; Innergroover tube type			
Condenser	**Volume(mm)**	858 mm x 663 mm x 23.2 mm			
	Type	Louver or Corrugated Fin; Innergroover tube type			
Refrigerant	**Type: R410A**	1100g			
Dimensions	Indoor(mm)	Width:1191	Depth :360	Height :258	
	Outdoor(mm)	Width :920	Depth :380	Height :699	

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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	220-240V
Applied voltage (V)	229.0
Frequency (Hz)	60
Current (A)	8.337
Power Consumption (W)	1826
Power factor	95.7%
Fan speed settings	High speed
Dry bulb temperature, indoor (℃)	26.99
Wet bulb temperature, indoor (℃)	19.01
Dry bulb temperature, outdoor (℃)	34.99
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	102.27
Indoor cooling capacity (Btu/h)	23812
Sensible cooling capacity(Btu/h)	22502
Latent cooling capacity (dehumidifying capacity) (Btu/h)	1310
Static pressure(Pa)	0.0
Volume flow rate of air(m3/hr)	1809.1
Cooling capacity (Btu/h)	23812
EER(Btu/h)/W	13.04

2.2 Cooling capacity test (T1-Half load capacity)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	229.5
Frequency (Hz)	60
Current (A)	4.254
Power Consumption (W)	639
Power factor	65.5%
Fan speed settings	High speed
Dry bulb temperature, indoor (℃)	27.00
Wet bulb temperature, indoor (℃)	19.00
Dry bulb temperature, outdoor (℃)	35.02
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	102.41
Indoor cooling capacity (Btu/h)	11420
Sensible cooling capacity (Btu/h)	11079
Latent cooling capacity (dehumidifying capacity) (W)	341
Static pressure(Pa)	0.0
Volume flow rate of air(m3/hr)	1604.1
Cooling capacity (Btu/h)	11420
EER(Btu/h)/W	17.87

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2.3 Test record of cooling capacity test (T3)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	229.9
Frequency (Hz)	60
Current (A)	10.09
Power Consumption (W)	2247
Power factor	96.9%
Fan speed settings	High speed
Dry bulb temperature, indoor (℃)	28.98
Wet bulb temperature, indoor (℃)	18.98
Dry bulb temperature, outdoor (℃)	45.98
Wet bulb temperature, outdoor (℃)	23.99
Barometer (Pa)	102.41
Indoor cooling capacity (Btu/h)	21496
Sensible cooling capacity(Btu/h)	21407
Latent cooling capacity (dehumidifying capacity) (Btu/h)	89
Static pressure(Pa)	0.0
Volume flow rate of air(m3/hr)	1806.4
Cooling capacity (Btu/h)	21496
EER(Btu/h)/W	9.57

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2.4 Test record of cooling capacity test (T1- Minimum load capacity)

Test Duration(min)	90
Power supplied	220-240V
Applied voltage (V)	229.9
Frequency (Hz)	60
Current (A)	2.641
Power Consumption (W)	359
Power factor	59.1%
Fan speed settings	High speed
Dry bulb temperature, indoor (℃)	26.99
Wet bulb temperature, indoor (℃)	18.99
Dry bulb temperature, outdoor (℃)	35.00
Wet bulb temperature, outdoor (℃)	24.00
Barometer (Pa)	102.22
Indoor cooling capacity (Btu/h)	1939
Sensible cooling capacity(Btu/h)	1880
Latent cooling capacity (dehumidifying capacity) (Btu/h)	59
Static pressure(Pa)	0.0
Volume flow rate of air(m3/hr)	1074.2
Cooling capacity (Btu/h)	6616
EER(Btu/h)/W	18.43

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2.5 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 (℃)	/
Wet bulb temperature, indoor (℃)	/
Dry bulb temperature, outdoor (℃)	/
Wet bulb temperature, outdoor (℃)	/
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	/

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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**
Cooling mode (T1-Minimum load capacity)	**27**	**19**	**35**	**24**	**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	**22500**	**23812**	**5.83%**	**>=21375**	Pass
Cooling power input, W	**1875**	**1826**	**-2.61%**	**<=1969**	Pass
EER, Btu/W ·h	**12.00**	**13.04**	**8.67%**	**>=11.80**	Pass
Cooling capacity test (for condition T1- Half load capacity)					
Cooling capacity, Btu/h	**10700**	**11420**	**6.73%**	**>=10165**	Pass
Cooling power input, W	**653**	**639**	**-2.14%**	**<=686**	Pass
EER, Btu/W ·h	**16.39**	**17.87**	**9.03%**	**>=15.57**	Pass
Cooling capacity test (for condition T3)					
Cooling capacity, Btu/h	**20800**	**21496**	**3.35%**	**>=19760**	Pass
Cooling power input, W	**2298**	**2247**	**-2.22%**	**<=2413**	Pass
EER, Btu/W ·h	**9.05**	**9.57**	**5.75%**	**>=8. 30**	Pass
Cooling capacity test (for condition T1- Minimum load capacity)					
Cooling capacity, Btu/h	**6200**	**6616**	**6.71%**	**>=5890**	Pass
Cooling power input, W	**367**	**359**	**-2.18%**	**<=385**	Pass
EER, Btu/W ·h	**16.89**	**18.43**	**9.12%**	**>=16.05**	Pass
Heating capacity					
Heating capacity, W	**/**	**/**	**/**	**/**	**/**
Heating power input,	**/**	**/**	**/**	**/**	**/**
COP, WW	**/**	**/**	**/**	**/**	**/**
CSEC (Kwh/Y):		5504			
Energy class: (base on rated EER at T1)		D			
SEER class		B			
SEER		15.00			

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a) Tested power at full load operation at (T1 and T3) …….. ⩽ 1.05 x rated power at full load operation at (T1 and T3).
b) Tested power at half load operation at (T1) …….. ⩽ 1.05 x rated power at half load operation at (T1).
c) Tested power at minimum load operation at (T1) …….. ⩽ 1.05 x rated power at minimum load operation at (T1).
d) Tested cooling capacity at full load operation at (T1 and T3) …….. ⩾ 0.95 x rated cooling capacity at full load operation at (T1 and T3).
e) Tested cooling capacity at half load operation at (T1) …….. ⩾ 0.95 x rated cooling capacity at half load operation at (T1).
f) Tested cooling capacity at minimum load operation at (T1) …….. ⩾ 0.95 x rated cooling capacity at minimum load operation at (T1).
g) Tested EER at full load operation at (T1 and T3) ……⩾ MEPS and ⩾ 0.95 x rated EER at full load operation (T1 and T3).
h) Tested power at (H1) …… ⩽ 1.05 x rated power at (H1).
i) Tested heating capacity at (H1) …… ⩾ 0.95 x rated heating capacity at (H1).
j) Tested COP ……⩾ 0.95 x rated COP.
k) Rated COP (Electrical Resistance) ……⩽ 1.0 (W/W).
l) Tested voltage …….. (refer to the standard mentioned in Clause 2).
m) Tested Frequency ……..…….. 60 Hz ±2%.

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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