

TEST REPORT

Product: 嵌入机

Model: ABH105H1ERG

Test Type: Entrustment test

Client: 青岛海尔空调电子有限公司

青岛海尔空调电子有限公司检测中心

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- 7 All the conclusions presented in this report are based on the samples provided by the client.**

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Appliance:	嵌入式	Sample Level:	Primary Sample	
Brand:	Haier	Sample Size:	1	
Model:	ABH105H1ERG	Sample Code:		
Client:	青岛海尔空调电子有限公司	Client Address:	青岛海尔信息产业园A10座	
Test Type:	Entrustment test	Test Purpose:	New Product Certification Test	
Manufacture:	黄岛商用空调	Sample Received:	2020-03-22	
Test Condition:	20°C 40%RH	Test Commenced:	2020-03-23	
Test Standard:	EN 14511-1:2013/ EN 14511-2:2013/EN 14511-3:2013/ EN 14511-4:2013	Test Completed:	2020-03-26	
Test Items:	额定制冷C、制冷季节能源效率SEER、额定制冷D、额定制热C、制热季节能源效率SCOP、凝结水排除及凝露、额定制热B、额定制热E、最大运行制冷、额定制热A、冻结、额定制冷A、额定制冷B、除霜、额定制热量, 输入功率, COP、额定制冷量, 输入功率, EER、额定制热D			
Main Testing Equipment:	Equipment No	Name	Model	Expiration
	91MC15476	功率表	WT230	2022-05-13
Test Conclusion:	Entrusted by 青岛海尔空调电子有限公司, According to EN 14511-1:2013/ EN 14511-2:2013/ EN 14511-3:2013/ EN 14511-4:2013, Carrying out tests on ABH105H1ERG, model: 嵌入式, Total test items 17, tested 17, untested 0, unapplicable 0, 17 items Passed, 0 items Failed, 0 items Not Judged. Test Conclusion: Pass (Blank) (Dedicated Inspection Seal)			
Client Remarks				
Test Lab Notes: Sample No: S20200322200003				
Previous Test Information:				
Number of Tests	Test Date	Report No	Test Conclusion	Unfold 

Tested by: 武玉鸣

Reviewed by: 纪新妮

Approved by: 王涛

Date: 2020-03-26

Date: 2020-03-28

Date: 2020-03-28

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Sample Details (Nameplate Content)					
No	Items	Parameter	No	Items	Parameter
1	额定制冷量	9200W	2	额定制冷输入功率/电流	3120/13.6W/A
3	额定最大制冷输入功率/电流	4000/17.4W/A	4	额定制热量	10200W
5	额定制热输入功率/电流	2910/12.7W/A	6	额定最大制热输入功率/电流	4000/17.4W/A
7	SEER/SCOP	5.9/3.8W/W	8	电源	1PH 220V-240V 50/60HZV/Hz
9	循环风量	1680m³/h	10	Refrigerant	R32
11	Maximum working pressure on cold side	4.3MPa	12	Category of electric shock protection	I
13	Noise	62dB (A)	14	灌注量	1.7kg
15	Maximum operating pressure on the hot side	4.3MPa	16	电加热消耗功率	0W
17	EER/COP	3/3.5W/W			

Sample Key Parts Description				
No	Key Parts Name	Specification	Dedicated Code	Supplier
1	遥控器	-	015001554	创新科技
2	Compressor	/	0150723729	Mitsubishi Electric (Guangzhou) Compressor Co., Ltd.
3	内机风机	/	0150401574	Zhongshan Broad Ocean Motor Co.ltd.
4	程序校验合	/	-	-
5	E2校验合	/	-	-
6	电控箱体	/	0150836746	/
7	外风机	/	0010401804	Nidec Shibaura (Zhejiang) Co., Ltd.
8	外机电脑板	-	0011800054B	Qingdao Haier Intelligent Electronics Co., Ltd.
9	Computer board of indoor motor	-	0151800208CF	-

Sample Modification Description							
Modification Type: Modification Type: a) Parts Replacement, b) Parameter Adjusting, c) Sample Replacement, d) Combination above							
No	Type	Name (Parts)	Before Modified (Parameter)	Modified (Parameter)	Modified by	Date	Attachment

Sample Appearance Description (Package,Appearance,etc.)							
无							
Deviation Description:							
No	Items	Standard Requirements			Actual Testing		

Attachments (click to download)

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Test Item: 额定制冷D
Standard Requirements: D工况下进行额定制冷测试, 制冷量、EER数据参与SEER计算, 不做判定
Sample No: S2020032200003
外机1U105S2SS1FA与内机ABH105H1ERG型号匹配; 机器定频12Hz 实测制冷量为2125W, 消耗功率为185W
Test Conclusion: Pass

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Test Item: 额定制热D
Standard Requirements: D工况下进行制热量测试, 工况稳定后空调连续运行3小时, 测试所得的制热量、功率、COP数据参与SCOP计算, 不做判定.
Sample No: S2020032200003
机器定频15Hz 实测能力为2218W, 消耗功率为286W
Test Conclusion: Pass

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Test Item: 额定制冷A
Standard Requirements: 额定制冷（制冷A工况制冷量）SCOP判定要求均为≥92%标称值 额定制冷量=制冷A工况制冷量, 要求制冷A工况制冷量不小于额定制冷量的92% SEER、SCOP判定要求均为≥92%标称值
Sample No: S2020032200003
实测制冷量为9322W, 为额定值的101.3% 机器定频63Hz
Test Conclusion: Pass

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Test Item: 额定制热C
Standard Requirements : C 工况下 进行制热量测试, 工况稳定后连续运行 3 小时, 测试所得的制热量、功率、COP数据参与SCOP计算, 不做判定.
Sample No: S2020032200003
实测 制热量为2732W, 实测消耗功率为431W 机器定频22Hz
Test Conclusion: Pass

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Test Item: 制冷季节能源效率SEER
Standard Requirements: 通过额定制冷A、B、C、D四个工况测试制冷量、功率、EER数据, 计算得出的SEER、不应小于标称值的92%。
Sample No: S2020032200003
实测SEER为5.8W·h/W·h,为额定值的103.6% 实测待机功率2.5W 送风功率30.0W
Test Conclusion: Pass

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Test Item: 额定制热B
Standard Requirements: B工况下进行制热量测试, 至少运行一个及以上的完整除霜周期, 测试所得的制热量、功率、COP数据参与SCOP计算, 不做判定.
Sample No: S2020032200003
实测制热量为3478W, 实测消耗功率为801W 机器定频40Hz
Test Conclusion: Pass

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Test Item: 额定制热A
Standard Requirements : 额定制热量 (制热 A 工况制热量 ±0.88) 额定制热量 = 制热 A 工况制热量 ±0.88 , 计算出的制热量不小于额定制热量的92% SEER、SCOP判定要求均为≥92%标称值
Sample No: S2020032200003
实测制热量为7978W, 实测消耗功率为3512W 机器定频75Hz
Test Conclusion: Pass

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Test Item: 额定制冷B
Standard Requirements: B工况下进行额定制冷测试, 制冷量、EER数据参与SEER计算, 不做判定
Sample No: S2020032200003
实测制冷量为6855W, 实测消耗功率为1683W 机器定频39Hz
Test Conclusion: Pass

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Test Item: 制热季节能源效率SCOP
Standard Requirements : 通过额定制热 A、B、C、D、E 五个工况, 测试制热量、功率、COP 数据, 计算得出的SCOP不应小于标称值的92%。
Sample No: S2020032200003
实测SCOP为3.91W·h/W·h, 为额定值的102.9% 待机功率2.5W
Test Conclusion: Pass

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Test Item: 额定制冷C
Standard Requirements: C工况下进行额定制冷测试, 制冷量、EER数据参与SEER计算, 不做判定
Sample No: S2020032200003
实测制冷量为4122W, 实测消耗功率为708W 机器定频21
Test Conclusion: Pass

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Test Item: 额定制热E
Standard Requirements: E工况下进行制热量测试, 工况稳定后,至少运行一个或以上的完整除霜周期, 测试所得的制热量、功率、COP数据参与SCOP计算, 不做判定.
Sample No: S2020032200003
实测制热量为7170W, 实测消耗功率为2889W 机器定频85Hz
Test Conclusion: Pass

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Test Item: 额定制热量, 输入功率, COP
Standard Requirements: 实测制热量≥标称值的92%, 实测输入功率≤标称值的110%, COP≥标称值的90%
Sample No: S2020032200003 机器定频75Hz 实测制热量为10333W, 为额定值的101.8% ; 实测输入功率为2870W, 为额定值的102.1%; 实测COP为3.62W/W,为额定值的102%
Test Conclusion: Pass

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Test Item: 额定制冷量, 输入功率, EER
Standard Requirements: 实测制冷量≥标称值的92%, 实测输入功率≤标称值的110%, EER≥标称值的90%
Sample No: S2020032200003 机器定频62Hz 实测制冷量为9322W, 为额定值的101.3% ; 实测输入功率为2987W, 为额定值的102.7%; 实测EER为3.12W/W,为额定值的104.7%
Test Conclusion: Pass

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Test Item: 最大运行制冷
Standard Requirements: 1.关机前1小时内, 机组电机应能持续运行, 且其电机过载保护装置不会动作 2.关机5分钟之后, 机组应在压缩机重新启动之后的5分钟内自动重启 3.重启后, 机组电机过载保护装置不应动作且电机连续运行1小时
Sample No: S2020032200003 分别在230V、198V、264V电压下测试: 最初的1h运行期间过载保护未出现动作, 停机后再启动连续运行2h无异常现象。 高温制冷（内32.00/-℃ 外：58℃）保护装置未动作。 制冷启动（内：32.00/23.00℃，外：43.00/26.00℃）工况稳定后分别在额定电压，额定电压的110%, 额定电压的90%, 进行启停实验， 每个电压运行1小时。每小时启停6次，均正常启动无异常现象。 .电压波动. 室内（32.00/23.00）室外（43.00/26.00） 电压波动（内：32.00/23.00℃，外：43.00/26.00℃）工况运行稳定后，每间隔12分钟（±15%）急剧波动一次的频率连续做5次， 波动结束后，恢复到额定电压运行30min，无异常现象 最小制冷国标工况（内：21.00/15.00℃，外：10.00/6.00℃） 最小制冷说明书最低温度（内：18.00/14.00℃，外：-10.00/—℃） 说明书最低温度低速运行12小时，国标工况低速运行4小时： 实验中安全装置未跳开， 过载保护未动作， 蒸发器迎风面未结霜。
Test Conclusion: Pass

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Test Item: 冻结
Standard Requirements: 1.蒸发器上不应残留有余霜或冰块 2.不应有冰霜掉落在机组之外 3.不应有水低落或吹出到房间内
Sample No: S2020032200003
冻结.室内 (21.00/15.00) 室外 (21.00/15.00) 保护器装置无动作, 室内无水滴滴落, 室内蒸发器结霜少于50%
Test Conclusion: Pass

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Test Item: 凝结水排除及凝露
Standard Requirements: 测试期间除排水管之外，应无凝结水滴落、流出或吹出。 室内机排水口直径应≥12mm。
Sample No: S2020032200003
凝结水未检测 凝露1 (27/25℃ 外:27/25℃) 凝露2 (27/25℃ 外:27/25℃) 凝露3 (21/19℃ 外:-10/-℃)分别测试 凝露1工况稳定后空调器除湿低风运行5h，；对压缩机启停开10min，停6min无水滴滴下或吹出现象。 凝露2工况稳定后空调器冷低风连续运行5h，无水滴滴下或吹出现象； 凝露3工况稳定后空调器低风运行2h，后转高风运行3h无水滴滴下或吹出现象；
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Test Item: 除霜
Standard Requirements: 接水盘及其周边不应有结冰增多的趋势
Sample No: S2020032200003
除霜 1. 除霜结束后无残留余霜。 2. 除霜时间为实验总时间的11.1%。 3. 除霜时出风温度未低于18℃ 。 4. 除霜结束后室外侧气温上升: 0.24℃ 倍除霜 先进行1h自动除霜，然后拔掉温度传感器，运行两个除霜周期，将除霜传感器恢复，机器可以正常启动，再进行12h自动除霜，空调除霜结束后室外换热器霜层可以化掉。 最大制热 分别在230V、198V、264V电压下测试: 最初的1h运行期间过载保护未出现动作， 停机后再启动连续运行2h无异常现象. 低温制热. 室内（20.00/12.00）室外（-11.00/-12.00） 高风运转8小时，在除霜结束后，无残留余霜，运行过程中无压缩机保护现象。 超低温制热. 室内（20.00/12.00）室外（-15.00/-） 上电静置8h后开机运行4h，机器正常运行，各部件无损坏；空调器除霜结束后，室外换热器的霜层可以化掉，无余霜，除霜结束及压机换向启动初，室内机无冷风吹出 大湿度除霜. 室内（20.00/12.00）室外（-5.00/-6.00） 除霜前吹出温度未低于30℃， 除霜时间为一个除霜周期的15.6% 无保护动作，无杂音
Test Conclusion: Pass