

检 测 报 告

Test Report

样品名称 Sample Name:

机柜空调

委托单位 Client:

安徽宜度环境设备有限公司

生产单位 Manufacturer:

安徽宜度环境设备有限公司

检测类别 Test Type:

委托检测

无锡科睿检测服务有限公司

Wuxi RELLAB Testing Services Co., Ltd.



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检测报告 Test Report

委托单位/地址/Client/Add: 安徽宜度环境设备有限公司
安徽省宿州市砀山县开发区惠民社区道北路 19 号

收样日期/Receipt Date: 2024/09/02

检测周期/Test Periods: 2024/09/02~2024/09/05

备注/Remark: 本报告替代编号为 WX240805-058 的报告, 原报告内容作废。

以下样品信息由委托单位提供并确认 (The following sample information were submitted by client):
本公司不负责样品的真伪性, 不承担证实委托单位提供信息的准确性、适当性和 (或) 完整性责任。
The Company is not responsible for the authenticity of the samples, and does not assume the responsibility to verify the accuracy, appropriateness and (or) completeness of the information provided by the client.

样品名称/Sample Name: 机柜空调

样品数量/Sample Quantity: 1 件

型号/规格/Type/Model: YDQACL050B

其他样品信息/
Other Sample Information: /

生产单位/地址/
Manufacturer/Add: 安徽宜度环境设备有限公司
安徽省宿州市砀山县开发区惠民社区道北路 19 号

检测结论/Conclusion:

检测样品	检测项目	判定
	额定制冷量; 最大负荷; 温升曲线	N/A
机柜空调	高温试验; 凝露试验; 耐电压; 泄露电流; 绝缘电阻; 接地电阻	P

符合性判定: P-符合 F-不符合 N/A-不适用

检验检测专用章
Seal
检验检测专用章
签发日期: 2024 年 10 月 31 日
Signed Date: Year Month Day

编制/Edited by

赵学文

2024-10-31

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姜海燕

2024-10-31

批准/Approved by

张大伟

2024-10-31

检测报告 Test Report

检测项目/Test Item: 额定制冷量; 最大负荷; 高温试验; 温升曲线; 凝露试验; 耐电压;
泄露电流; 绝缘电阻; 接地电阻

1 检测环境/Test Ambient:

温度: 24℃ 相对湿度: 54%RH

2 检测设备/Test Instruments:

表 1 检测设备

序号	设备名称	设备型号	设备编号	计量有效期
1	5T-6 焓差测试台	/	B-YF-SY228-6	/
2	功率计	WT333E	EP-10036	2025/01/07
3	差压变送器	EJA120E	FP-10333	2025/02/28
4	差压变送器	EJA120E	FP-10336	2025/02/28
5	差压变送器	EJA120E	FP-10337	2025/02/28
6	泄漏电流测试仪	AN9620H	EI-10126	2025/04/26
7	绝缘电阻测试	FLUKE1508	ER-10012	2024/09/21
8	耐电压测试仪	TOS5301	EV-10022	2024/09/21
9	接地电阻测试	TOS6200	ER-20002	2024/09/21

3 检测过程/Test Process:

检测依据: GB/T 7725-2004; YD/T 2319-2011

4 检测结果/Test Result:

判定依据: 由委托单位提供

表 2 检测结果

序号	检测项目	测试工况	技术要求	检测结果	判定
1	额定制冷量	干球35/35℃ 湿球: 24℃	/	5209W	/
2	最大负荷	室内干球:23℃ 湿 球:19℃; 室外侧: 干 球:55℃, 湿球40℃	/	1414W	/
3	高温试验	室内干球: 30℃ 相对 湿度50%; 室外侧: 干 球: 55℃, 湿球40℃	运行中未停机。	3657W	符合

序号	检测项目	测试工况	技术要求	检测结果	判定
4	温升曲线	室内干球: 35℃ 湿球: 24℃ 室外侧: 干球: 20℃升到55℃湿度大50%	/	见下图2	/
5	凝露试验	干球27℃ 湿球: 24℃	表面凝露不应滴下, 室内送风不应有水滴。	空调箱体表面有白雾, 没有水滴落	符合
6	耐电压	试验电压:1250VAC,持续时间1min	试验电压:1250VAC,持续时间1min, 无击穿无闪络。	无击穿; 无闪络	符合
7	泄露电流	1.06 倍额定电压	1.06 倍额定电压, 泄漏电流小于10mA。	0.622mA	符合
8	绝缘电阻	测试电压加500VDC	测试电压加500VDC 测试电阻不小于2MΩ。	>550MΩ	符合
9	接地电阻	实验电流25A, 持续时间1min	实验电流25A, 持续时间1min, 结果不大于0.1Ω。	0.032Ω	符合

备注:

- 1.额定制冷量最终充注量为1.26kg;
- 2.截流毛细管长度为340mm;
- 3.测试1到测试5参考 GB/T 7725-2004测试方法;
- 4.测试9前在机组右侧装入1颗螺钉。(见下图2)

表 3 检测数据 (额定制冷量)

测试工况	干球 35/35℃ 湿球: 24℃	
ID Labels	ID Units	Comment -->
Nozzle Static Pressure	Pa	-149.02
Lab Indoor Nozzle Temperature	° C	26.88
Unit Indoor Entering Dry Bulb Temperature	° C	34.93
Unit Indoor Entering Wet Bulb Temperature	° C	23.96
Unit Indoor Leaving Dry Bulb Temperature	° C	24.61
Unit Indoor Leaving Wet Bulb Temperature	° C	20.88
Unit Outdoor Entering Dry Bulb Temperature	° C	34.85
Unit Outdoor Entering Wet Bulb Temperature	° C	24.25
Lab Indoor Nozzle Pressure Drop	Pa	191.05
Unit Pressure Drop	Pa	-0.43
Lab Barometric Pressure	kPa • abs	101.33

测试工况	干球 35/35℃ 湿球: 24℃	
ID Labels	ID Units	Comment -->
Compressor Voltage	V	216.82
Compressor Current	A	8.52
Compressor Power	kW	1.82
Compressor Factor(BC)	NONE	0.99
出风温度	° C	24.93
阀前	° C	37.42
阀后	° C	21.56
冷凝器出口	° C	39.00
吸气	° C	19.25
排气	° C	61.54
压缩机缸体	° C	57.32
吸气 2	° C	19.66
Unit Indoor Air Flowrate (mixed)	m ³ /h	1405.33
Lab Air Density at ID Nozzle	kg/m ³	1.17
Unit Indoor Capacity (cooling)	W	5208.89
Unit Indoor Latent Capacity (cooling)	W	279.63
Unit Indoor Air Flowrate (dry)	m ³ /h	1385.97
Unit Indoor Air Mass Flowrate (mixed)	kg/min	28.14
Unit Indoor Sensible Capacity	W	4917.34
Unit Indoor Sensible Heat Ratio	NONE	0.94
Unit Indoor Gross Capacity Adjusted (cooling)	W	5208.89
Unit ASHRAE Capacity (cooling)	W	5208.89
System 1 Power (measured)	kW	1.82
Unit EER	W/(W · h)	2.86
Unit COP	NONE	2.86
Lab Corrected Barometric Pressure	Pa	101323.56
Unit Indoor Air Mass Flowrate (dry)	kg/min	27.75
Unit Indoor Net Capacity	W	5208.89

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表 4 检测数据 (最大负荷)

测试工况	室内干球:23℃ 湿球:19℃; 室外侧: 干球:55℃, 湿球 40℃	
ID Labels	ID Units	Comment -->
Nozzle Static Pressure	Pa	-142.65
Lab Indoor Nozzle Temperature	° C	20.52
Unit Indoor Entering Dry Bulb Temperature	° C	22.96
Unit Indoor Entering Wet Bulb Temperature	° C	19.00
Unit Indoor Leaving Dry Bulb Temperature	° C	19.87
Unit Indoor Leaving Wet Bulb Temperature	° C	18.02
Unit Outdoor Entering Dry Bulb Temperature	° C	54.98
Unit Outdoor Entering Wet Bulb Temperature	° C	40.07
Lab Indoor Nozzle Pressure Drop	Pa	186.47
Unit Pressure Drop	Pa	-0.57
Lab Barometric Pressure	kPa • abs	101.33
Compressor Voltage	V	220.41
Compressor Current	A	10.33
Compressor Power	kW	2.24
Compressor Factor(BC)	NONE	0.98
出风温度	° C	19.88
阀前	° C	54.08
阀后	° C	18.52
冷凝器出口	° C	57.58
吸气	° C	13.25
排气	° C	78.12
压缩机缸体	° C	72.22
吸气 2	° C	13.32
Unit Indoor Air Flowrate (mixed)	m ³ /h	1403.88
Lab Air Density at ID Nozzle	kg/m ³	1.19
Unit Indoor Capacity (cooling)	W	1413.59
Unit Indoor Air Flowrate (dry)	m ³ /h	1386.99
Unit Indoor Air Mass Flowrate (mixed)	kg/min	28.11

测试工况	室内干球:23℃ 湿球:19℃; 室外侧: 干球:55℃, 湿球 40℃	
ID Labels	ID Units	Comment -->
Unit Indoor Sensible Capacity	W	1471.79
Unit Indoor Sensible Heat Ratio	NONE	1.04
Unit Indoor Gross Capacity Adjusted (cooling)	W	1413.59
Unit ASHRAE Capacity (cooling)	W	1413.59
System 1 Power (measured)	kW	2.24
Unit EER	W/(W · h)	0.63
Unit COP	NONE	0.63
Lab Corrected Barometric Pressure	Pa	101323.56
Unit Indoor Air Mass Flowrate (dry)	kg/min	27.77
Unit Indoor Net Capacity	W	1413.59

表 5 检测数据（高温试验）

测试工况	室内干球: 30℃ 相对湿度 50%; 室外侧: 干球: 55℃, 湿球 40℃	
ID Labels	ID Units	Comment -->
Nozzle Static Pressure	Pa	-139.78
Lab Indoor Nozzle Temperature	° C	29.95
Unit Indoor Entering Dry Bulb Temperature	° C	35.00
Unit Indoor Entering Wet Bulb Temperature	° C	27.71
Unit Indoor Leaving Dry Bulb Temperature	° C	28.65
Unit Indoor Leaving Wet Bulb Temperature	° C	25.83
Unit Outdoor Entering Dry Bulb Temperature	° C	55.04
Unit Outdoor Entering Wet Bulb Temperature	° C	39.98
Lab Indoor Nozzle Pressure Drop	Pa	180.42
Unit Pressure Drop	Pa	-0.50
Lab Barometric Pressure	kPa · abs	101.33
Compressor Voltage	V	219.78
Compressor Current	A	11.50
Compressor Power	kW	2.49
Compressor Factor(BC)	NONE	0.98

测试工况	室内干球: 30℃ 相对湿度 50%; 室外侧: 干球: 55℃, 湿球 40℃	
ID Labels	ID Units	Comment -->
出风温度	° C	28.83
阀前	° C	55.47
阀后	° C	25.31
冷凝器出口	° C	58.35
吸气	° C	21.93
排气	° C	86.90
压缩机缸体	° C	79.64
吸气 2	° C	22.82
Unit Indoor Air Flowrate (mixed)	m ³ /h	1356.23
Lab Air Density at ID Nozzle	kg/m ³	1.15
Unit Indoor Capacity (cooling)	W	3656.77
Unit Indoor Latent Capacity (cooling)	W	693.64
Unit Indoor Air Flowrate (dry)	m ³ /h	1329.72
Unit Indoor Air Mass Flowrate (mixed)	kg/min	27.16
Unit Indoor Sensible Capacity	W	2934.94
Unit Indoor Sensible Heat Ratio	NONE	0.80
Unit Indoor Gross Capacity Adjusted (cooling)	W	3656.77
Unit ASHRAE Capacity (cooling)	W	3656.77
System 1 Power (measured)	kW	2.49
Unit EER	W/(W • h)	1.47
Unit COP	NONE	1.47
Lab Corrected Barometric Pressure	Pa	101323.56
Unit Indoor Air Mass Flowrate (dry)	kg/min	26.63
Unit Indoor Net Capacity	W	3656.77

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表 6 检测数据 (温升试验)

测试工况	室内干球: 35℃ 湿球: 24℃ 室外侧: 干球: 20℃ 升到 55℃ 湿度大 50%	
ID Labels	ID Units	Comment -->
Nozzle Static Pressure	Pa	-145.35
Lab Indoor Nozzle Temperature	° C	26.83
Unit Indoor Entering Dry Bulb Temperature	° C	35.03
Unit Indoor Entering Wet Bulb Temperature	° C	24.18
Unit Indoor Leaving Dry Bulb Temperature	° C	24.89
Unit Indoor Leaving Wet Bulb Temperature	° C	21.19
Unit Outdoor Entering Dry Bulb Temperature	° C	37.59
Unit Outdoor Entering Wet Bulb Temperature	° C	29.92
Lab Indoor Nozzle Pressure Drop	Pa	186.96
Unit Pressure Drop	Pa	-0.50
Lab Barometric Pressure	kPa • abs	101.33
Compressor Voltage	V	220.10
Compressor Current	A	9.02
Compressor Power	kW	1.95
Compressor Factor(BC)	NONE	0.98
出风温度	° C	25.14
阀前	° C	39.20
阀后	° C	21.26
冷凝器出口	° C	41.09
吸气	° C	19.48
排气	° C	67.13
压缩机缸体	° C	61.51
吸气 2	° C	19.97
Unit Indoor Air Flowrate (mixed)	m ³ /h	1390.13
Lab Air Density at ID Nozzle	kg/m ³	1.17
Unit Indoor Capacity (cooling)	W	5016.83
Unit Indoor Latent Capacity (cooling)	W	222.84

测试工况	室内干球: 35℃ 湿球: 24℃ 室外侧: 干球: 20℃ 升到 55℃ 湿度大 50%	
ID Labels	ID Units	Comment -->
Unit Indoor Air Flowrate (dry)	m ³ /h	1370.50
Unit Indoor Air Mass Flowrate (mixed)	kg/min	27.83
Unit Indoor Sensible Capacity	W	4784.35
Unit Indoor Sensible Heat Ratio	NONE	0.98
Unit Indoor Gross Capacity Adjusted (cooling)	W	5016.83
Unit ASHRAE Capacity (cooling)	W	5016.83
System 1 Power (measured)	kW	1.95
Unit EER	W/(W · h)	2.73
Unit COP	NONE	2.72
Lab Corrected Barometric Pressure	Pa	101323.56
Unit Indoor Air Mass Flowrate (dry)	kg/min	27.44
Unit Indoor Net Capacity	W	5016.83

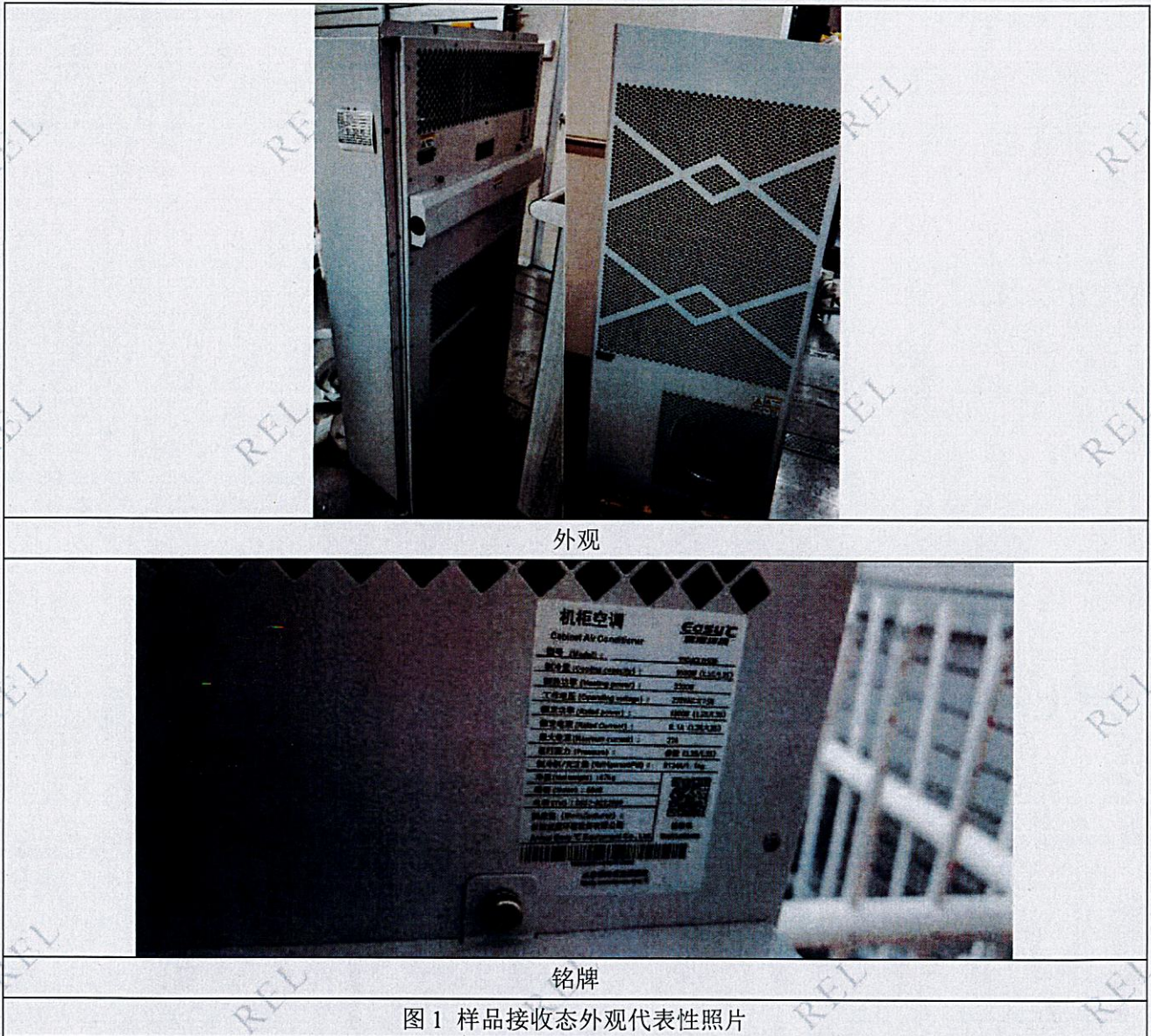
表 7 检测数据 (凝露试验)

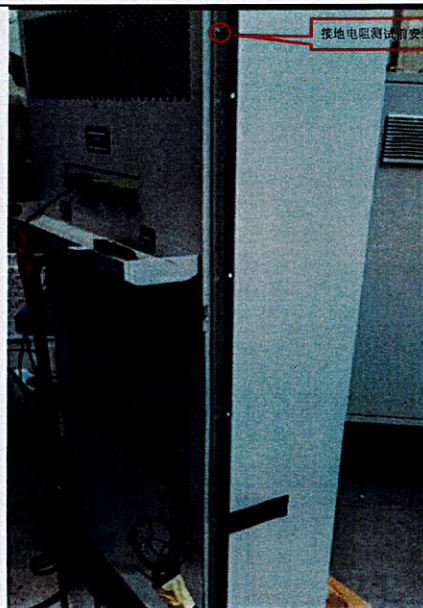
测试工况	干球 27℃ 湿球: 24℃	
ID Labels	ID Units	Comment -->
Nozzle Static Pressure	Pa	-22.04
Lab Indoor Nozzle Temperature	° C	28.62
Unit Indoor Entering Dry Bulb Temperature	° C	26.99
Unit Indoor Entering Wet Bulb Temperature	° C	24.02
Unit Indoor Leaving Dry Bulb Temperature	° C	26.15
Unit Indoor Leaving Wet Bulb Temperature	° C	23.65
Unit Outdoor Entering Dry Bulb Temperature	° C	37.44
Unit Outdoor Entering Wet Bulb Temperature	° C	35.82
Lab Indoor Nozzle Pressure Drop	Pa	349.15
Unit Pressure Drop	Pa	-2.12
Lab Barometric Pressure	kPa · abs	101.33
Compressor Voltage	V	222.88
Compressor Current	A	7.87

测试工况	干球 27℃ 湿球: 24℃	
ID Labels	ID Units	Comment -->
Compressor Power	kW	1.72
Compressor Factor(BC)	NONE	0.98
出风温度	° C	26.70
阀前	° C	28.71
阀后	° C	17.70
冷凝器出口	° C	29.86
吸气	° C	18.96
排气	° C	58.17
压缩机缸体	° C	52.57
吸气 2	° C	19.28
Unit Indoor Air Flowrate (mixed)	m ³ /h	1839.33
Lab Air Density at ID Nozzle	kg/m ³	1.16
Unit Indoor Capacity (cooling)	W	882.45
Unit Indoor Latent Capacity (cooling)	W	355.00
Unit Indoor Air Flowrate (dry)	m ³ /h	1807.87
Unit Indoor Air Mass Flowrate (mixed)	kg/min	36.83
Unit Indoor Sensible Capacity	W	515.34
Unit Indoor Sensible Heat Ratio	NONE	0.60
Unit Indoor Gross Capacity Adjusted (cooling)	W	882.45
Unit ASHRAE Capacity (cooling)	W	882.45
System 1 Power (measured)	kW	1.72
Unit EER	W/(W · h)	0.51
Unit COP	NONE	0.51
Lab Corrected Barometric Pressure	Pa	101323.56
Unit Indoor Air Mass Flowrate (dry)	kg/min	36.20
Unit Indoor Net Capacity	W	882.45

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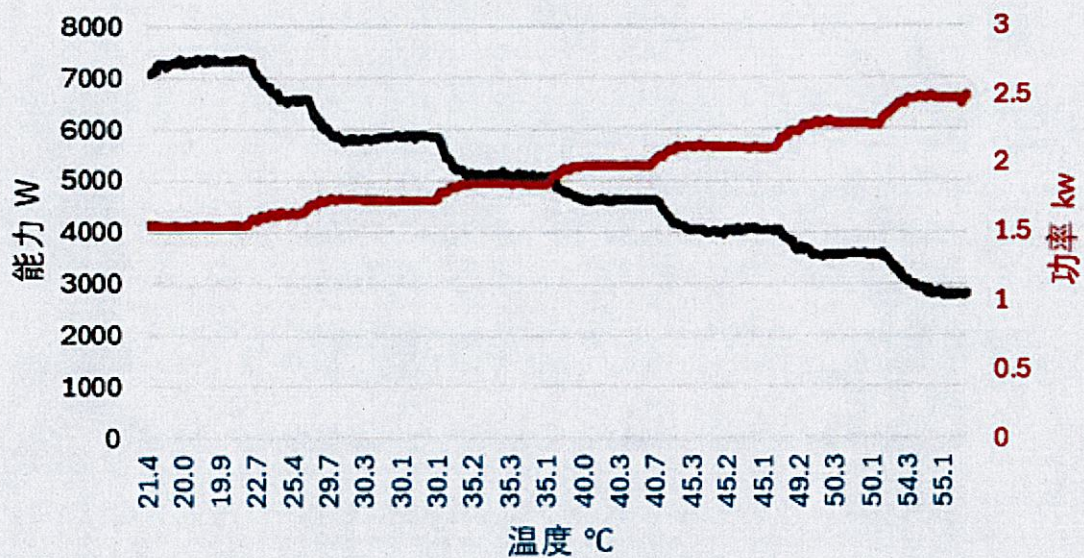
5 样品照片/Sample photo:





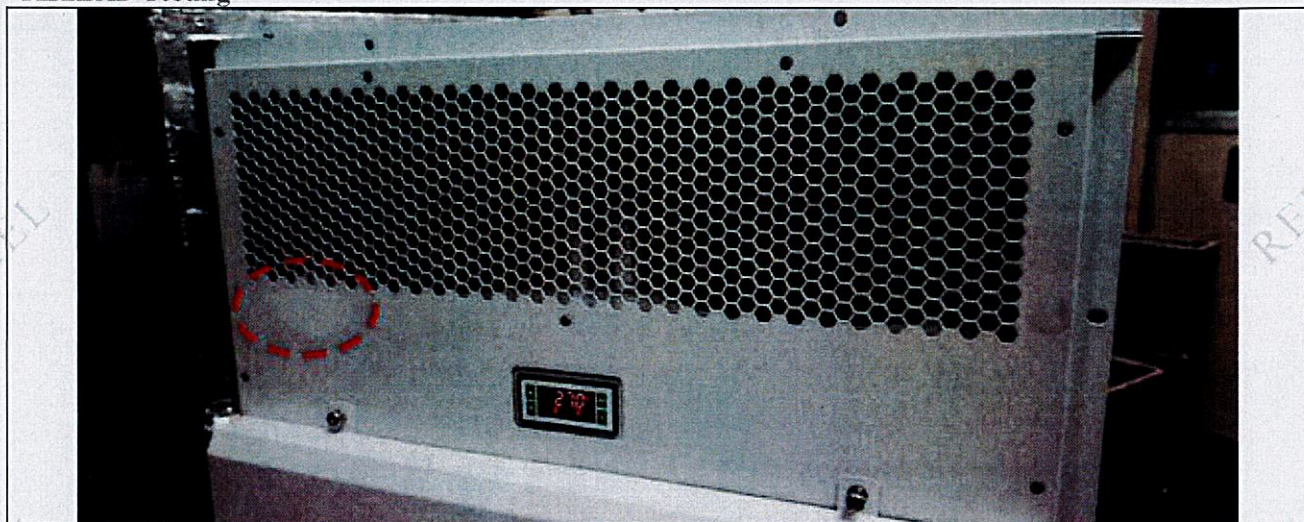
接地电阻

温升测试



温升曲线

图 2 样品检测过程中代表性照片



凝露测试

图 3 样品检测后代表性照片

---报告结束/The End---

注意事项 Attention

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- 6 只对所测样品的检测结果负责。
The company is only responsible for the test results of the tested samples.
- 7 本公司对检测报告中的所有信息负责，委托方提供的信息（含数据）除外，当委托方提供的信息（含数据）可能影响本公司检测结果有效性时，特此作免责声明。
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The report can be used as scientific research, teaching, internal quality control and other activities without CMA marking, and has no social proof function.
- 10 送检样品务必在收到本检测报告两个月内领取，逾期由本公司自行处理，法律法规、技术文件特殊规定除外。
Samples submitted for inspection must be received within two months after receiving this test report, and the overdue samples shall be handled by our company, except for the special provisions of laws and regulations and technical documents.