中国认可
国际互认
检测
TESTING
CNAS L3584

Product Service

Technical Report No.: 64.181.22.03623.01 Rev.00

Date: 2022-10-17

Client:	Report holder's name:	Guangzhou Hiseer Air Conditioning Co.,Ltd
	Report holder's Address:	Xicheng industry zone,Renhe town,Baiyun district,Guangzhou China
	Contact person of applicant:	Mrs. YAN Wei
	Manufacturer's name:	Guangzhou Hiseer Air Conditioning Co.,Ltd
	Manufacturer's address:	Xicheng industry zone,Renhe town,Baiyun district,Guangzhou China
Factory:	Factory's name:	Guangzhou Hiseer Air Conditioning Co.,Ltd
	Factory's address:	Xicheng industry zone,Renhe town,Baiyun district,Guangzhou China
Test object:	Product:	Inverter EVI heat pump
	Model:	RS10V/L
	Trade name:	Hiseer
Test specification:	☑	EN 14825:2018
	☑	(EU) No 813/2013
	☑	EN 12102-1:2017

Purpose of examination:	Test according to the test specification	
	☑	EU 2016/2282:2016-11-30

Test result: The test results show that the presented product is in compliance with the above listed test specifications.

www.tuvsud.com

TÜV®

TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

1 Description of the test object

1.1 Function

Manufacturer's specification for intended use:
The appliance is air to water heat pump.
Manufacturer's specification for predictive use:
According to user manual

1.2 Consideration of the foreseeable use

☐ Not applicable
☑ Covered through the applied standard
☐ Covered by the following comment
☐ Covered by attached risk analysis

1.3 Technical Data

Model :	RS10V/L
Rated Voltage (V) :	380-415V，3N~
Rated Frequency (Hz) :	50
Rated Power (W) :	7700
Rated Current (A) :	16.0
Protection Class :	Class I
Protection Against Moisture :	IP X4
Construction :	Stationary
Supply connection :	☐ Non detachable cord ☑ Permanent connection to fixed wiring
Operation mode:	☑ Continuous operation; ☐ Intermittent operation; ☐ Short time operation;
Refrigerant/charge (g) :	R32 /1800
Declared parameters :	☑ Average ☐ Warmer ☐ Colder
Sound power level dB(A) :	64
Series No :	SHSBW2209002 for RS10V/L

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

2 Order

2.1 Date of Purchase Order, Customer's Reference

2022-09-09 , Guangzhou Hiseer Air Conditioning Co.,Ltd

2.2 Test Sample(s)

- Reception date(s): 2022-08-10，2022-08-18
- Location(s) of reception:

For Energy test: (Reception date(s): 2022-08-10)

B1F&2F, No. 3 Chuangqi Building, No. 63 Chuangqi Road, Shilou Town, Panyu District, Guangzhou 511447, China

For Noise tests: (Reception date(s): 2022-08-18)

The test item is not in accredited scope of our own laboratory (Registration No. CNAS L3584). It was subcontracted to an accredited laboratory with CNAS certificate No. CNAS L0095.

Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, P.R.China

- Condition of test sample(s): completed and can be normal operation

2.3 Date(s) of Testing

2022-08-24 to 2022-10-15

2.4 Location(s) of Testing

Same as 2.2

2.5 Points of Non-compliance or Exceptions of the Test Procedure

N/A

3 Test Results

3.1 Positive Test Results

See Appendix I

4 Remark

N/A

4.1 The user manual has been examined according to the minimum requirements described in the product standard. The manufacturer is responsible for the accuracy of further par-ticulars as well as of the composition and layout.

4.2 When the product is placed on the market, it must be accompanied with safety Instruc-tions written in official language of the country. The instructions shall give information re-garding safe operation, installation and maintenance.

5 Documentation

- Appendix I Test results
- Appendix II Marking plate
- Appendix III photo documentation
- Appendix IV Construction data form
- Appendix V Test equipment list

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

6 Summary

1) The appliance is air to water heat pump, including a whole compression type refrigerant circuit to heat water in another circuit. The appliance was for cooling and heating water function, this report only for heating capacity test.
2) The main power is supplied by a 5-pole supply cord connecting to fixed wiring.
3) Water enthalpy method was adopted in this report.
4) Standby mode power, off mode power and thermostat-off mode power were tested according to clause 12 of standard EN 14825:2018.
5) This test report 64.181.22.03623.01 Rev.00, dated 2022-10-17 bases on original test report 64.181.22.03018.01 Rev.00, dated 2022-10-16 to include the following changes and/or additions, which were considered technical modifications:

   a) Changing report holder name and address, manufacturer and factory`s name and address.

   b) After evaluating, no additional test was needed.

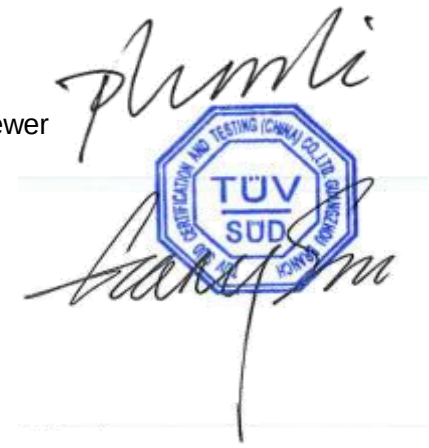
TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
TÜV SÜD Group

Tested by: Plum Li, Project Handler

printed name, function & signature

Approved by: Gary Sun, Designated Reviewer

printed name, function & signature



www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Table 1.	Heating mode(Low temperature application):							P	
Model	RS10V/L								
Product type	Air to Water	**Heating season**	☑	Average	☐	Warmer	☐	Colder	
1. Test conditions:									
Condition	**Part Load Ratio** in %					**Outdoor heat exchanger**		**Indoor heat exchanger**	
	Formula		A	W		Inlet dry (wet) bulb temperature °C		Inlet/outlet water temperatures (°C)	
A	(-7-16)/(Tdesignh-16)		88	N/A	N/A	-7	-8	a	34
B	(+2-16)/ (Tdesignh-16)		54	N/A	N/A	2	1	a	30
C	(+7-16)/(Tdesignh-16)		35	N/A	N/A	7	6	a	27
D	(+12-16)/(Tdesignh-16)		15	N/A	N/A	12	11	a	24
E	(TOL-16)/ (Tdesignh-16)					TOL= -10	-11	a	35.3
F	(Tbivalent-16)/(Tdesignh-16)					Tbiv= -7	-8	a	34.0
G	(-15-16)/(Tdesignh-16)		N/A	N/A	N/A	-15		N/A	
Remark: a) With the water flow rate as determined at the standard rating conditions given in EN14511-2 at 30/35 conditions, the capacity is 9103.21W, the power is 2039.21W, COP is 4.46W/W.									
2.Tested data/correction data(Average):									
General test conditions/ Part-Load	Unit	A(-7)/W34 (88%)	A2/W30 (54%)		A7/W27 (35%)	A12/W24 (15%)		A(-10)/ W35.3 (100%)	A(-7)/ W34 (88%)
	--	A	B		C	D		E	F
Data collection period	hh: min:sec	4:00:00	2:10:00		2:10:00	2:10:00		4:00:00	4:00:00
The heat pump defrosts	--	Yes	No		No	No		Yes	Yes
Complete Cycles	--	2	0		0	0		1	2
Barometric pressure	kPa	101.02	101.01		101.04	101.02		101.03	101.02
Voltage	V	399.9	400.3		400.5	400.5		399.9	399.9
Current input of the unit	A	4.56	1.86		1.23	1.03		4.66	4.56
Power input of the unit	kW	2.934	1.242		0.801	0.646		3.004	2.934
Test conditions **indoor** unit									
Inlet Water temperature, DB	°C	28.74	27.16		24.78	21.55		30.38	28.74
Outlet Water temperature, DB	°C	33.49*	30.06		27.09	24.20		34.95	33.49*

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-6.95	2.00	7.00	12.01	-9.91	-6.95
Air **inlet** temperature, WB	°C	-7.99	0.99	6.00	11.00	-10.93	-7.99
Summary of the results							
Total heating capacity	kW	8.497	5.182	4.117	4.739	8.168	8.497
Effective power input	kW	2.825	1.173	0.736	0.577	2.899	2.825
Coefficient of performance (COP)	--	3.01	4.42	5.60	8.21	2.82	3.01
Compressor frequency	Hz	95	43	30	30	95	95
Water flow	m³/h	1.56	1.56	1.56	1.56	1.56	1.56
Remark: * In part condition, outlet temperature data is recorded by a full average complete cycle's data.							

3.Calculation/conclusion for SCOP(Average):			
Tdesignh(°C)	-10	Tbiv(°C)	-7
Pdesignh(kW)	9.605	TOL(°C)	-10

Test result A, B, C, D, E, F conditions:

Condition	Part load	Measured capacity	COP at measured capacity	Cdh	CR	COP at part load
E	9.605	8.168	2.82	0.00	1.00	2.82
F	8.497	8.497	3.01	0.00	1.00	3.01
A	8.497	8.497	3.01	0.00	1.00	3.01
B	5.172	5.182	4.42	0.00	1.00	4.42
C	3.325	4.117	5.60	0.99	0.81	5.58
D	1.478	4.739	8.21	0.99	0.31	8.03
CR: part load divided by capacity;						

www.tuvsud.com

TÜV®

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Electric power consumptions	Unit	Value
Thermostat-off mode [P_{TO}]	kW	0.016
Standby mode [P_{SB}]	kW	0.016
Crankcase heater [P_{CK}]	kW	0.000
Off mode [P_{OFF}]	kW	0.016

Conclusions:	Unit	Value
SCOPon:	kWh/kWh	4.55
SCOP:	kWh/kWh	4.55
Q_H:	kWh/year	19844
Q_{HE}:	kWh/year	4361
$\eta_{s,h}$	%	179.0
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 2)	--	A+++

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Table 2.	Heating mode(Medium temperature application):							P
Model	RS10V/L							
Product type	Air to Water	**Heating season**	☑	Average	☐	Warmer	☐	Colder

1. Test conditions:

Condition	Part Load Ratio in %				Outdoor heat exchanger		Indoor heat exchanger	
	Formula	A	W	C	Inlet dry / wet bulb temp. °C		Inlet/outlet water temperatures (°C)	
A	(-7-16)/(Tdesignh-16)	88	N/A	N/A	-7	-8	a	52
B	(+2-16)/ (Tdesignh-16)	54	N/A	N/A	2	1	a	42
C	(+7-16)/(Tdesignh-16)	35	N/A	N/A	7	6	a	36
D	(+12-16)/(Tdesignh-16)	15	N/A	N/A	12	11	a	30
E	(TOL-16)/ (Tdesignh-16)				TOL= -10	-11	a	55.3
F	(Tbivalent-16)/(Tdesignh-16)				Tbiv= -7	-8	a	52.0
G	(-15-16)/(Tdesignh-16)	N/A	N/A	N/A	-15		N/A	

Remark: a) With the water flow rate as determined at the standard rating conditions given in EN14511-2 at 47/55 conditions, the capacity is 9954.0W, the power is 3307.2W, COP is 3.01W/W.

2.Tested data/correction data(Average):

General test conditions/ Part-Load	Unit	A(-7)/W52 (88%)	A2/W42 (54%)	A7/W36 (35%)	A12/W30 (15%)	A(-10)/ W55.3 (100%)	A(-7)/ W52 (88%)
	--	A	B	C	D	E	F
Data collection period	hh: min:sec	4:00:00	2:10:00	2:10:00	2:10:00	2:10:00	4:00:00
The heat pump defrosts	--	Yes	No	No	No	No	Yes
Complete Cycles	--	1	0	0	0	0	1
Barometric pressure	kPa	101.03	101.05	101.10	101.09	101.04	101.03
Voltage	V	399.3	400.3	400.4	400.2	399.3	399.3
Current input of the unit	A	3.33	1.46	0.89	0.71	3.43	3.33
Power input of the unit	kW	3.916	1.707	1.020	0.804	4.028	3.916
Test conditions **indoor** unit							
Inlet Water temperature, DB	°C	4.48	37.61	32.76	26.29	48.16	4.48
Outlet Water temperature, DB	°C	51.63	42.01	35.96	30.07	55.08	51.63

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-6.96	2.01	7.00	12.00	-10.00	-6.96
Air **inlet** temperature, WB	°C	-8.00	1.01	6.00	11.00	-11.01	-8.00
Summary of the results							
Total heating capacity	kW	8.903	5.491	3.980	4.725	8.602	8.903
Effective power input	kW	3.848	1.639	0.952	0.739	3.954	3.848
Coefficient of performance (COP)	--	2.31	3.35	4.18	6.40	2.18	2.31
Compressor frequency	Hz	95	48	30	30	93	95
Water flow	m³/h	1.09	1.09	1.09	1.09	1.09	1.09
Remark: --							

3.Calculation/conclusion for SCOP(Average):			
Tdesignh(°C)	-10	Tbiv(°C)	-7
Pdesignh(kW)	10.064	TOL(°C)	-10

Test result A, B, C, D, E, F conditions:

Condition	Part load	Measured capacity	COP at measured capacity	Cdh	CR	COP at part load
E	10.064	8.602	2.18	0.00	1.00	2.18
F	8.903	8.903	2.31	0.00	1.00	2.31
A	8.903	8.903	2.31	0.00	1.00	2.31
B	5.419	5.491	3.35	0.00	0.99	3.35
C	3.484	3.980	4.18	0.99	0.88	4.17
D	1.548	4.725	6.40	0.99	0.33	6.27

CR: part load divided by capacity;

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Electric power consumptions	Unit	Value
Thermostat-off mode [P_{TO}]	kW	0.015
Standby mode [P_{SB}]	kW	0.014
Crankcase heater [P_{CK}]	kW	0.000
Off mode [P_{OFF}]	kW	0.014

Conclusions:	Unit	Value
SCOPon:	kWh/kWh	3.47
SCOP:	kWh/kWh	3.46
Q_H:	kWh/year	20792
Q_{HE}:	kWh/year	6002
$\eta_{s,h}$	%	135.6
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 1)	--	A++

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix I Test results

Table 3a.	Sound power level measurement(Medium temperature application)		P
Model	RS10V/L		
	Product type :		Air to Water
	Outdoor heat exchanger, Air temperature DB/WB (°C):		7.0 /6.0
	Indoor heat exchanger, Water inlet/outlet temperature (°C):		47.0 /55.0
	Voltage (V):		399.2
	Frequency (Hz):		50
	Working condition class :		Class A
	Acoustical environment :		Hemi-anechoic room
	Windshield type :		Sponge
	Measured position amount :		14
	Water flow (m³/h):		1.09

Measured quantity	$L_{WA,indoors}$ (dB(A))	$L_{WA,outdoors}$ (dB(A))	Remark
Sound pressure level $\overline{L}_{p(ST)}$****	--	49	--
Spheres radius d *	--	1.0m	--
Sound power level L_{wA}****	--	64	--

Setting of controls: according to user manual.
Duct connection:--
Rounding to: *) 1 decimal places; **) 2 decimal places; ***) 3 decimal places; ****) nearest integer
Fan speed: 598 r/min, compressor speed: 70Hz.

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix II Marking plate

Nameplate

Model: **RS10V/L**

EVI

Inverter Air Source Heat Pump

Model:	RS10V/L
Heating capacity:	9.55 (2.60-10.2) kW
Cooling capacity:	6.00 (1.72-6.43) kW
Electric heater:	4 kW
Power supply:	380-415V/3N~/50Hz
Nominal power consumption at heating:	2.20kW
Nominal running current at heating:	9.8A
Nominal power consumption at cooling:	2.45kW
Nominal running current at cooling:	10.9A
Max operating power consumption:	3.7 (7.7) kW
Max operating current:	16.0 (16.0) A
Refrigerant:	R32
Filling weight:	1800g
Nominal flow heating medium:	1.64m^3/h
Max outlet heating medium temperature:	55℃
Permissible operating pressure:	3.8MPa
Internal pressure drop at nominal flow:	19kPa
Pipe connector:	G1"
Anti electric shock grade:	I
Water proof grade:	IPX4
N.W:	102kg
Series No.:	
Manufacture date:	

*The nominal condition is following EN14511 at dry bulb/wet bulb air temperature: 7°C /6°C, inlet water/outlet water temperature: 30°C /35°C

Importer:xxx
Manufacturer:Guangzhou Hiseer air conditioning Co.,Ltd.
Xicheng industryzone,Renhe town,Baiyun district,Guangzhou China

Remark: 1. The height of CE marking shall be at least 5mm, the height of WEEE marking shall be at least 7mm, the height of flame symbol without color placed on the nameplate shall be at least 10mm.
2. The nameplate for model RS12V/L is the same as model RS10V/L excepl for model name.

Appendix III photo documentaiton

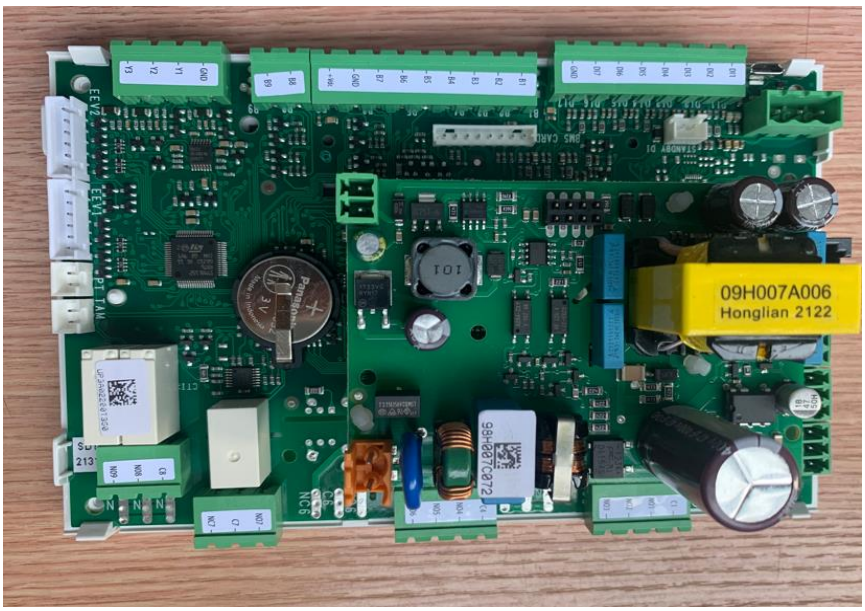
Details of:	Overall view
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Compressor
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

www.tuvsud.com
TÜV®
TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix III photo documentaiton

Details of:	Fan Motor
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Main Control Board
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

www.tuvsud.com
TÜV®
TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix III photo documentaiton

Details of:	Water Pump
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668

Appendix IV Construction data form

Part		Technical data
1. Compressor		
	Manufacture:	Panasonic Wanbao appliances compressor (Guangzhou) Co.,Ltd
	Type:	9RD220ZAA2J
	Rated capacity:	8.65kw
	Serial-number:	N/A
	Specification:	DC280V; R32
2. Condenser		
	Manufacture:	Jiangsu Baode Heat-exchanger Equipment Co., Ltd.
	Type:	HBL40-28D
	Heat exchanger:	Brazed plate heat exchanger; Plate spacing 1.3mm
	Dimension(mm):	W X H X D: 119 x 376 x 55 [mm x mm x mm]
3. Evaporator		
	Manufacture:	Guangzhou Aotai refrigeration equipment co.,ltd
	Type:	RS11V/L.CH.00
	Heat exchanger:	Fin spacing 1.8mm; aluminum finned coil heat exchanger
	Dimension(mm):	W X D X H:779*300*966 [mm x mm x mm]
4. Fan motor		
	Manufacture:	Hangzhou Panasonic motor co.,ltd
	Type:	EHDS83BZD
	Fan type:	3 blades
	Specification:	DC310E, 120W, 960r/min
5. Main control board		
	Manufacture:	Carel electronic (Suzhou) co.,ltd
	Type:	UP3A02200T3SO
	Specification:	230VAC; 50/60Hz
6. Water pump		
	Manufacture:	Grundfos
	Type:	UPM3K 25-75 130 AZA
	Specification:	230VAC; 50Hz

Appendix V Equipment List

No.	Type	Manufacture	Model	Equipment ID	Calibration Due Date
1	R&A performance measuring system	GEI	5HP	64-1-90-11-004	2022-12-24
2	Anechoic rooms (hemi-anechoic rooms)	NC-036-2	-	Guangzhou Kinte	2023-10-07
3	AC source Supply	YANGHONG	YF-3600	VGDS-0637	2022-11-07
4	6 channel data logger	—	PXI-1033	VGDY-0257	2023-05-20
5	PULSE system	B & K	3660C	VGDY-0184	2023-04-12
6	Calibrator	B & K	4231	HJ-000095	2023-06-30
7	Long steel tape	—	5m	HJ-000150	2023-01-01
8	Temperature measurement system	—	—	NC-036-1	2023-06-07
9	Atmospheric pressure meter	—	—	HJ-000165	2022-11-22
10	Constant temperature water system	B & K	—	VGDS-0448	2023-04-18
11	Windscreen	B & K	WS002-5	—	—

-- End of Report --

www.tuvsud.com

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F&8F East, Communication Building, No.163 Pingyun Road, Huangpu Ave. West, Guangzhou 510656, China
Tel: +86 20 38320668