Product Service

Technical Report No.: 64.181.20.05244.01 Rev.00

Date: 2020-12-03

Client:	Name:	Foshan Guangteng New Energy Co., Ltd
	Address:	Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China
	Contact person:	Kelvin Xu
Manufacturing place:	Manufacturer's name:	Foshan Guangteng New Energy Co., Ltd
	Address:	Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China
	Factory's name:	Foshan Guangteng New Energy Co., Ltd
	Address:	Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China
Test subject:	Product:	DC INVERTER HEAT PUMP
	Type:	GT-SKR020KBDC-M32, GT-SKR020KBDC-S32, GT-SKR030KBDC-M32, GT-SKR030KBDC-S32, GT-SKR040KBDC-M32, GT-SKR040KBDC-S32, GT-SKR050KBDC-M32, GT-SKR050KBDC-S32
	Trade name:	GUANGTENG
Test specification:	☑	EN 14825:2018
	☑	(EU) No 813/2013
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 specified requirements

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details please see testing and certification regulation, chapter A-3.4.

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1 Description of the test subject

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 :	GT-SKR020KBDC-M32, GT-SKR020KBDC-S32, GT-SKR030KBDC-M32, GT-SKR030KBDC-S32, GT-SKR040KBDC-M32, GT-SKR040KBDC-S32, GT-SKR050KBDC-M32, GT-SKR050KBDC-S32
Rated Voltage (V) :	380-415V, 3N~ for GT-SKR050KBDC-M32, GT-SKR050KBDC-S32; 220-240V~ for others
Rated Frequency (Hz) :	50
Rated Power (W) :	N/A
Rated Current (A) :	7.4A for GT-SKR020KBDC-M32, GT-SKR020KBDC-S32; 9.4A for GT-SKR030KBDC-M32, GT-SKR030KBDC-S32; 13.6A for GT-SKR040KBDC-M32, GT-SKR040KBDC-S32; 17.8A for GT-SKR050KBDC-M32, GT-SKR050KBDC-S32
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 /charge see nameplate
Declared parameters :	☑ Average ☐ Warmer ☐ Colder
Sound power level dB(A) :	N/A
Series No :	126-0205-01-RZ for GT-SKR020KBDC-M32; 126-0205-01-1-RZ for GT-SKR020KBDC-S32; 126-0309-01-RZ for GT-SKR030KBDC-M32; 126-0309-01-1-RZ for GT-SKR030KBDC-S32; 126-0407-01-RZ for GT-SKR040KBDC-M32; 126-0408-01-RZ for GT-SKR040KBDC-S32; 126-0505-01-RZ for GT-SKR050KBDC-M32; 126-0502-01-3-RZ for GT-SKR050KBDC-S32

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2 Order

2.1 Date of Purchase Order, Customer's Reference

2020-11-09, Kelvin Xu

2.2 Receipt of Test Sample, Condition, Location

2020-11-11

For Energy test:

GZ-Lans Experimental Technology Co., Ltd. Laboratory

Address: No.16, Juncheng Road, Huangpu district,Guangzhou, China

2.3 Date of Testing

2020-11-12 to 2020-11-28

2.4 Location 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 particulars as well as of the composition and layout.

4.2 When the product is placed on the market, it must be accompanied with safety Instructions written in official language of the country. The instructions shall give information regarding 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

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6 Summary

1) The appliance is DC Inverter Type Air To Water Unit , 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 for models GT-SKR050KBDC-M32, GT-SKR050KBDC-S32 is supplied by a 5-pole supply cable not with plug which not supply by manufactory.
3) The main power for models GT-SKR020KBDC-M32, GT-SKR020KBDC-S32, GT-SKR030KBDC-M32, GT-SKR030KBDC-S32, GT-SKR040KBDC-M32, GT-SKR040KBDC-S32 is supplied by a 3-pole supply cable not with plug which not supply by manufactory.
4) Water enthalpy method was adopted in this report.
5) Standby mode power, off mode power and thermostat-off mode power were tested according to clause 12 of standard EN 14825:2018.
6) The models GT-SKR020KBDC-M32, GT-SKR030KBDC-M32, GT-SKR040KBDC-M32, GT-SKR050KBDC-M32 respectively same as GT-SKR020KBDC-S32, GT-SKR030KBDC-S32, GT-SKR040KBDC-S32, GT-SKR050KBDC-S32 except different model name.
7) The test are carried out at models GT-SKR020KBDC-M32, GT-SKR030KBDC-M32, GT-SKR040KBDC-M32, GT-SKR050KBDC-M32 as representative.

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Tested by: William Liang, Project Handler

printed name, function & signature

Approved by: Tony Xie, Designated Reviewer

printed name, function & signature

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Appendix I Test results

Table 1.	**Heating mode(Low temperature application):**							**P**
Model	GT-SKR020KBDC-M32							
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	a / 35.3
F	(Tbivalent-16)/(Tdesignh-16)				Tbiv	a / 34
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.

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	4:00:00	2:00:00	2:00:00	2:00:00	4:00:00
The heat pump defrosts	--	Yes	Yes	No	No	No	Yes
Complete Cycles	--	1	1	0	0	0	1
Barometric pressure	kPa	101.02	101.02	101.02	101.02	101.02	101.02
Voltage	V	230.2	230.5	230.5	230.5	230.2	230.2
Current input of the unit	A	7.64	3.58	2.24	2.09	8.44	7.64
Power input of the unit	kW	1.765	0.822	0.509	0.475	1.955	1.765
Test conditions **indoor** unit							
Inlet Water temperature, DB	°C	29.66	26.79	24.26	20.82	30.95	29.66
Outlet Water temperature, DB	°C	33.73	29.68*	27.10	24.01	35.21	33.73

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Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-6.96	1.91	6.94	11.97	-9.99	-6.96
Air **inlet** temperature, WB	°C	-7.75	1.08	5.96	11.01	-10.79	-7.75
Summary of the results							
Total heating capacity	kW	5.183	3.434	3.385	3.794	5.072	5.183
Effective power input	kW	1.777	0.834	0.521	0.487	1.967	1.777
Coefficient of performance (COP)	--	2.92	4.12	6.50	7.79	2.58	2.92
Compressor frequency	Hz	80	40	30	30	85	80
Water flow	m³/h	1.02	1.02	1.02	1.02	1.02	1.02
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)	5.859	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	5.859	5.072	2.58	0.00	1.00	2.58
F	5.183	5.183	2.92	0.00	1.00	2.92
A	5.183	5.183	2.92	0.00	1.00	2.92
B	3.155	3.434	4.12	0.00	0.92	4.12
C	2.028	3.385	6.50	0.99	0.60	6.46
D	0.901	3.794	7.79	0.99	0.24	7.55
CR: part load divided by capacity;						

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Appendix I Test results

Electric power consumptions	Unit	Value
Thermostat-off mode [P_{TO}]	kW	0.020
Standby mode [P_{SB}]	kW	0.020
Crankcase heater [P_{CK}]	kW	0.038
Off mode [P_{OFF}]	kW	0.020

Conclusions:	Unit	Value
SCOPon:	kWh/kWh	4.50
SCOP:	kWh/kWh	4.48
Q_H:	kWh/year	12106
Q_{HE}:	kWh/year	2703
$\eta_{s,h}$	%	176.1
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 2)	--	A+++

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Appendix I Test results

Table 2.	**Heating mode(Low temperature application):**							**P**
Model	GT-SKR030KBDC-M32							
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	a / 35.3
F	(Tbivalent-16)/(Tdesignh-16)				Tbiv	a / 34
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.

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	2:00:00	4:00:00	2:00:00	2:00:00	2:00:00	2:00:00
The heat pump defrosts	--	No	Yes	No	No	No	No
Complete Cycles	--	0	1	0	0	0	0
Barometric pressure	kPa	101.02	101.02	101.02	101.02	101.02	101.02
Voltage	V	230.1	230.4	230.5	230.5	230.1	230.1
Current input of the unit	A	9.00	4.26	2.75	2.36	9.70	9.00
Power input of the unit	kW	2.082	0.977	0.624	0.531	2.246	2.082
Test conditions **indoor** unit							
Inlet Water temperature, DB	°C	29.82	27.24	24.78	21.33	31.29	29.82
Outlet Water temperature, DB	°C	33.85	29.76	27.09	24.00	35.28	33.85

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Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-6.97	2.01	6.88	12.05	-9.96	-6.97
Air **inlet** temperature, WB	°C	-8.18	0.99	5.75	10.98	-11.17	-8.18
Summary of the results							
Total heating capacity	kW	6.819	4.282	3.918	4.531	6.751	6.819
Effective power input	kW	2.114	1.010	0.657	0.564	2.278	2.114
Coefficient of performance (COP)	--	3.22	4.24	5.97	8.03	2.96	3.22
Compressor frequency	Hz	80	40	30	30	85	80
Water flow	m³/h	1.45	1.45	1.45	1.45	1.45	1.45
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)	7.708	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	7.708	6.751	2.96	0.00	1.00	2.96
F	6.819	6.819	3.22	0.00	1.00	3.22
A	6.819	6.819	3.22	0.00	1.00	3.22
B	4.150	4.282	4.24	0.00	0.97	4.24
C	2.668	3.918	5.97	0.99	0.68	5.94
D	1.186	4.531	8.03	0.99	0.26	7.81
CR: part load divided by capacity;						

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Appendix I Test results

Electric power consumptions	**Unit**	**Value**
Thermostat-off mode [P_{TO}]	kW	0.020
Standby mode [P_{SB}]	kW	0.020
Crankcase heater [P_{CK}]	kW	0.038
Off mode [P_{OFF}]	kW	0.020

Conclusions:	**Unit**	**Value**
SCOPon:	kWh/kWh	4.58
SCOP:	kWh/kWh	4.57
Q_H:	kWh/year	15925
Q_{HE}:	kWh/year	3486
$\eta_{s,h}$	%	179.7
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 2)	--	A+++

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Appendix I Test results

Table 3.	**Heating mode(Low temperature application):**							**P**
Model	GT-SKR040KBDC-M32							
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	a / 35.3
F	(Tbivalent-16)/(Tdesignh-16)				Tbiv	a / 34
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.

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	2:00:00	4:00:00	2:00:00	2:00:00	2:00:00	2:00:00
The heat pump defrosts	--	No	Yes	No	No	No	No
Complete Cycles	--	0	2	0	0	0	0
Barometric pressure	kPa	101.02	101.02	101.02	101.02	101.02	101.02
Voltage	V	229.9	230.3	230.4	230.3	229.9	229.9
Current input of the unit	A	14.13	6.17	4.17	3.54	15.68	14.13
Power input of the unit	kW	3.266	1.423	0.960	0.812	3.622	3.266
Test conditions **indoor** unit							
Inlet Water temperature, DB	°C	30.08	27.04	24.58	21.22	31.32	30.08
Outlet Water temperature, DB	°C	34.07	29.66*	27.11	24.03	35.20	34.07

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Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-7.03	1.98	7.40	12.06	-10.04	-7.03
Air **inlet** temperature, WB	°C	-7.73	1.08	6.07	11.06	-11.03	-7.73
Summary of the results							
Total heating capacity	kW	9.546	6.943	6.056	6.730	9.278	9.546
Effective power input	kW	3.318	1.475	1.012	0.864	3.674	3.318
Coefficient of performance (COP)	--	2.88	4.71	5.98	7.79	2.53	2.88
Compressor frequency	Hz	80	39**	30	30	85	80
Water flow	m³/h	2.05	2.05	2.05	2.05	2.05	2.05
Remark: * In part condition, outlet temperature data is recorded by a full average complete cycle's data. **In part condition, 39Hz is lowest compressor frequency.							

3.Calculation/conclusion for SCOP(Average):

Tdesignh(°C)	-10	Tbiv(°C)	-7
Pdesignh(kW)	10.791	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	10.791	9.278	2.53	0.00	1.00	2.53
F	9.546	9.546	2.88	0.00	1.00	2.88
A	9.546	9.546	2.88	0.00	1.00	2.88
B	5.811	6.943	4.71	0.99	0.84	4.70
C	3.735	6.056	5.98	0.99	0.62	5.95
D	1.660	6.730	7.79	0.99	0.25	7.56
CR: part load divided by capacity;						

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Appendix I Test results

Electric power consumptions	Unit	Value
Thermostat-off mode [P_{TO}]	kW	0.020
Standby mode [P_{SB}]	kW	0.020
Crankcase heater [P_{CK}]	kW	0.038
Off mode [P_{OFF}]	kW	0.020

Conclusions:	Unit	Value
SCOPon:	kWh/kWh	4.70
SCOP:	kWh/kWh	4.69
Q_H:	kWh/year	22294
Q_{HE}:	kWh/year	4750
$\eta_{s,h}$	%	184.7
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 2)	--	A+++

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Appendix I Test results

Table 4.	**Heating mode(Low temperature application):**							**P**
Model	GT-SKR050KBDC-M32							
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	a / 35.3
F	(Tbivalent-16)/(Tdesignh-16)				Tbiv	a / 34
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.

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	2:00:00	4:00:00	2:00:00	2:00:00	2:00:00	2:00:00
The heat pump defrosts	--	No	Yes	No	No	Yes	No
Complete Cycles	--	0	1	0	0	0	0
Barometric pressure	kPa	101.02	101.02	101.02	101.02	101.02	101.02
Voltage	V	398.6	398.9	399.0	399.0	398.5	398.6
Current input of the unit	A	7.28	3.36	2.29	1.99	7.20	7.28
Power input of the unit	kW	4.173	1.906	1.522	1.040	4.632	4.173
Test conditions **indoor** unit							
Inlet Water temperature, DB	°C	29.84	26.97	24.43	21.46	31.14	29.84
Outlet Water temperature, DB	°C	34.02	29.72	27.07	24.21	35.27	34.02

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Appendix I Test results

Test conditions **outdoor** unit							
Air **inlet** temperature, DB	°C	-7.00	2.23	6.90	12.08	-9.99	-7.00
Air **inlet** temperature, WB	°C	-8.06	1.24	6.01	11.02	-10.90	-8.06
Summary of the results							
Total heating capacity	kW	13.934	9.195	8.816	9.161	13.737	13.934
Effective power input	kW	4.267	1.999	1.615	1.133	4.725	4.267
Coefficient of performance (COP)	--	3.27	4.60	5.46	8.08	2.91	3.27
Compressor frequency	Hz	80	40	30	30	85	80
Water flow	m³/h	2.85	2.85	2.85	2.85	2.85	2.85
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)	15.752	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	15.752	13.737	2.91	0.00	1.00	2.91
F	13.934	13.934	3.27	0.00	1.00	3.27
A	13.934	13.934	3.27	0.00	1.00	3.27
B	8.482	9.195	4.60	0.00	0.92	4.60
C	5.453	8.816	5.46	0.99	0.62	5.42
D	2.423	9.161	8.08	0.99	0.26	7.87
CR: part load divided by capacity;						

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Appendix I Test results

Electric power consumptions	Unit	Value
Thermostat-off mode [P_{TO}]	kW	0.020
Standby mode [P_{SB}]	kW	0.020
Crankcase heater [P_{CK}]	kW	0.038
Off mode [P_{OFF}]	kW	0.020

Conclusions:	Unit	Value
SCOPon:	kWh/kWh	4.68
SCOP:	kWh/kWh	4.67
Q_H:	kWh/year	32544
Q_{HE}:	kWh/year	6962
$\eta_{s,h}$	%	184.0
Seasonal space heating energy efficiency classes: (According (EU) No 811/2013 Table 2)	--	A+++

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Appendix II Marking plate

Nameplate

Model: GT-SKR020KBDC-M32

DC INVERTER HEAT PUMP	
Model No.	GT-SKR020KBDC-M32
Power supply	220-240V~/50Hz
Rated current	7.4A
Max exhaust pressure	4.2MPa
Max suction pressure	1.8MPa
Maximum allowable pressure	4.2MPa
Refrigerant	R32/750g
Max water temperature	60℃
Degree of protection	IPX4
Shockproof level	I
Earth requirement	≤0.1Ω
Net weight	57kg
Dimension	945*410*600mm
Water connection	1 Inch
Noise level	≤52dB(A)
Working ambient temperature	-20℃～43℃
Foshan Guangteng New Energy Co., Ltd. Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China	

Remark: The model GT-SKR020KBDC-S32 is same as GT-SKR020KBDC-M32 except for model's name.

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Appendix II Marking plate

Nameplate

Model: GT-SKR030KBDC-M32

DC INVERTER HEAT PUMP	
Model No.	GT-SKR030KBDC-M32
Power supply	220-240V~/50Hz
Rated current	9.4A
Max exhaust pressure	4.2MPa
Max suction pressure	1.8MPa
Maximum allowable pressure	4.2MPa
Refrigerant	R32/1800g
Max water temperature	60℃
Degree of protection	IPX4
Shockproof level	I
Earth requirement	≤0.1Ω
Net weight	72kg
Dimension	1010*410*795mm
Water connection	1 Inch
Noise level	≤54dB(A)
Working ambient temperature	-20℃～43℃
Foshan Guangteng New Energy Co., Ltd. Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China	

Remark: The model GT-SKR030KBDC-S32 is same as GT-SKR030KBDC-M32 except for model's name.

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Appendix II Marking plate

Nameplate

Model: GT-SKR040KBDC-M32

DC INVERTER HEAT PUMP	
Model No.	GT-SKR040KBDC-M32
Power supply	220-240V~/50Hz
Rated current	13.6A
Max exhaust pressure	4.2MPa
Max suction pressure	1.8MPa
Maximum allowable pressure	4.2MPa
Refrigerant	R32/2000g
Max water temperature	60℃
Degree of protection	IPX4
Shockproof level	I
Earth requirement	≤0.1Ω
Net weight	102kg
Dimension	1115*470*1020mm
Water connection	1 Inch
Noise level	≤56dB(A)
Working ambient temperature	-20℃～43℃
Foshan Guangteng New Energy Co., Ltd. Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China	

Remark: The model GT-SKR040KBDC-S32 is same as GT-SKR040KBDC-M32 except for model's name.

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Appendix II Marking plate

Nameplate

Model: GT-SKR050KBDC-M32

DC INVERTER HEAT PUMP	
Model No.	GT-SKR050KBDC-M32
Power supply	380-415V/3N~/50Hz
Rated current	17.8A
Max exhaust pressure	4.2MPa
Max suction pressure	1.8MPa
Maximum allowable pressure	4.2MPa
Refrigerant	R32/2200g
Max water temperature	60℃
Degree of protection	IPX4
Shockproof level	I
Earth requirement	≤0.1Ω
Net weight	122kg
Dimension	1167*470*1278mm
Water connection	1 Inch
Noise level	≤56dB(A)
Working ambient temperature	-20℃～43℃
Foshan Guangteng New Energy Co., Ltd. Section 2, Yongfeng Industrial Zone, Lunjiao, Shunde, Foshan, Guangdong, China	

Remark: The model GT-SKR050KBDC-S32 is same as GT-SKR050KBDC-M32 except for model's name.

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Appendix III photo documentaiton

Details of:	Overall view for GT-SKR020KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Compressor for GT-SKR020KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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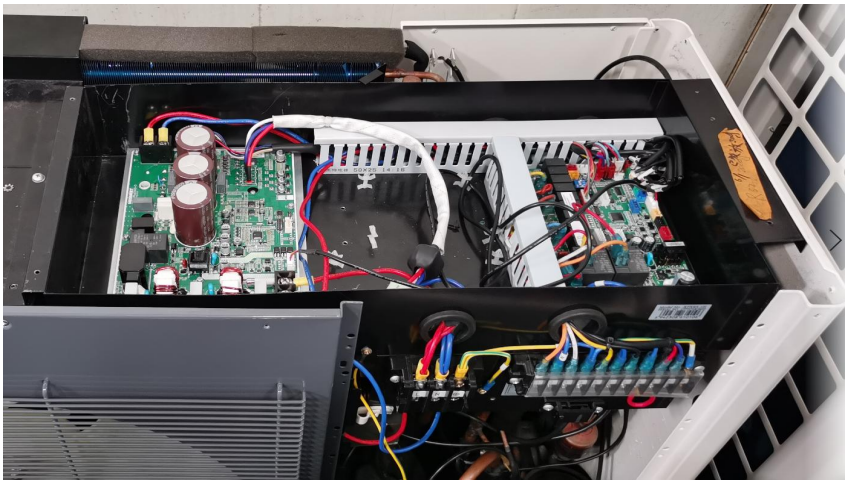
Appendix III photo documentaiton

Details of:	Fan Motor for GT-SKR020KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Main Control Board for GT-SKR020KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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Appendix III photo documentaiton

Details of:	Overall view for GT-SKR030KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Compressor for GT-SKR030KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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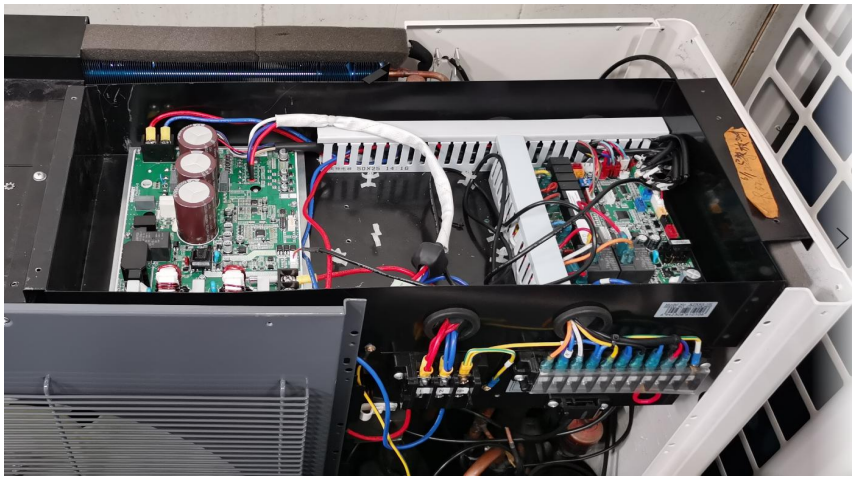
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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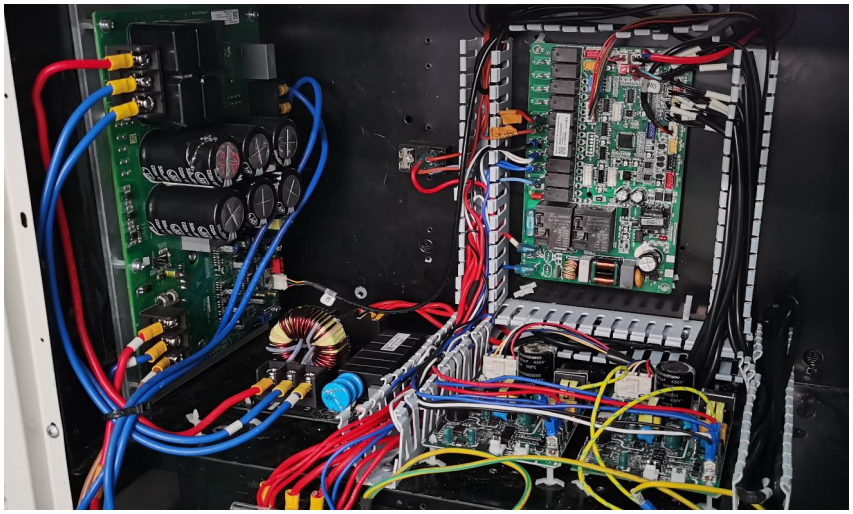
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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Appendix III photo documentaiton

Details of:	Overall view for GT-SKR050KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

Details of:	Compressor for GT-SKR050KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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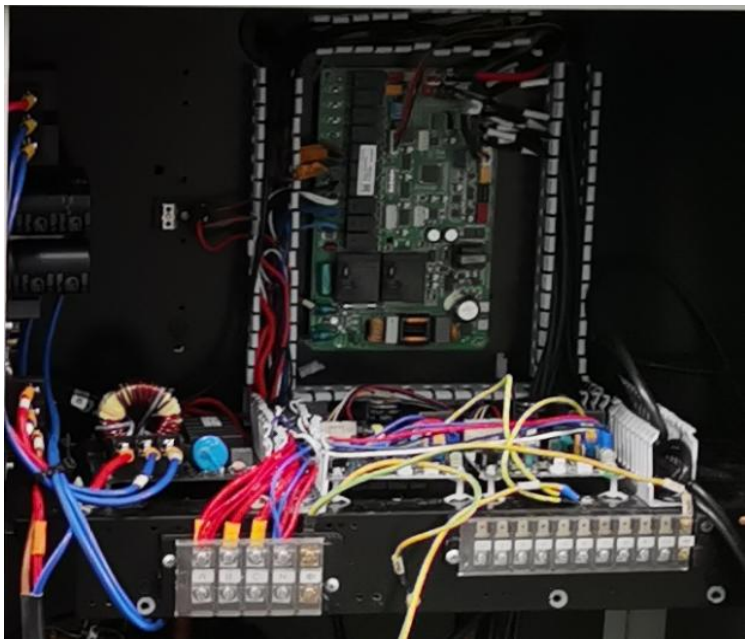
Details of:	Main Control Board for GT-SKR050KBDC-M32
View: ☐ General ☐ Front ☐ Rear ☐ Right ☐ Left ☐ Top ☐ Bottom	

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Appendix IV Construction data form

Model: GT-SKR020KBDC-M32, GT-SKR020KBDC-S32		
Part		**Technical data**
1. Compressor		
	Manufacture:	Mitsubishi Electric（Guangzhou）Compressor Co., Ltd.
	Type:	SVB172FNPMC
	Rated capacity:	5450W; R32
	Serial-number:	N/A
2. Condenser		
	Manufacture:	SWEP A DOVER COMPANY
	Type:	V26TH×22/1P-SC-M
	Heat exchanger:	Plate heat exchanger
	Dimension (mm):	376(H)mmX39(D)mmX119(W)mm
3. Evaporator		
	Manufacture:	Foshan Huize Heat Exchange Equipment Co., Ltd.
	Type:	Hydrophilic aluminum
	Heat exchanger:	Finned-coil heat exchanger
	Dimension (mm):	615(L)mmX285(H)mmX550(D)mm
4. Fan motor		
	Manufacture:	Jiangmen LT Motor Co., Ltd
	Type:	RD34HE1
	Fan type:	3 blade
5. Controller		
	Manufacture:	SHENZHEN MEGMEET ELECTRICAL CO., LT
	Type:	HiPlus2000D-GTR32

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Appendix IV Construction data form

Model: GT-SKR030KBDC-M32, GT-SKR030KBDC-S32		
Part		**Technical data**
1. Compressor		
	Manufacture:	Mitsubishi Electric（Guangzhou）Compressor Co.,Ltd.
	Type:	SVB220FLGMC-L
	Rated capacity:	7100W; R32
	Serial-number:	N/A
2. Condenser		
	Manufacture:	SWEP A DOVER COMPANY
	Type:	V25TH×22/1P-SC-M
	Heat exchanger:	Plate heat exchanger
	Dimension (mm):	526(H)mmX39(D)mmX119(W)mm
3. Evaporator		
	Manufacture:	Foshan Huize Heat Exchange Equipment Co., Ltd.
	Type:	Hydrophilic aluminum
	Heat exchanger:	Finned-coil heat exchanger
	Dimension (mm):	690(L)mmX270(H)mmX750D)mm
4. Fan motor		
	Manufacture:	Jiangmen LT Motor Co., Ltd
	Type:	RD50HK1
	Fan type:	3 blade
5. Controller		
	Manufacture:	SHENZHEN MEGMEET ELECTRICAL CO., LT
	Type:	HiPlus3000D-GTR32

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Appendix IV Construction data form

Model: GT-SKR040KBDC-M32, GT-SKR040KBDC-S32		
Part		**Technical data**
1. Compressor		
	Manufacture:	Mitsubishi Electric（Guangzhou）Compressor Co.,Ltd.
	Type:	MVB33FBBMC
	Rated capacity:	11370W; R32
	Serial-number:	N/A
2. Condenser		
	Manufacture:	SWEP A DOVER COMPANY
	Type:	V25TH×32/1P-SC-M
	Heat exchanger:	Plate heat exchanger
	Dimension (mm):	526(H)mmX45(D)mmX119(W)mm
3. Evaporator		
	Manufacture:	Foshan Huize Heat Exchange Equipment Co., Ltd.
	Type:	Hydrophilic aluminum
	Heat exchanger:	Finned-coil heat exchanger
	Dimension (mm):	725(L)mmX352(H)mm2X950(D)mm
4. Fan motor		
	Manufacture:	Jiangmen LT Motor Co., Ltd
	Type:	RD34HE1
	Fan type:	3 blade
5. Controller		
	Manufacture:	SHENZHEN MEGMEET ELECTRICAL CO., LT
	Type:	HiPlus5000DF4-GTR32

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Appendix IV Construction data form

Model: GT-SKR050KBDC-M32, GT-SKR050KBDC-S32		
Part		**Technical data**
1. Compressor		
	Manufacture:	Mitsubishi Electric（Guangzhou）Compressor Co.,Ltd.
	Type:	MVB42FCBMC-L
	Rated capacity:	14380W; R32
	Serial-number:	N/A
2. Condenser		
	Manufacture:	SWEP A DOVER COMPANY
	Type:	V25TH×38/1P-SC-M
	Heat exchanger:	Plate heat exchanger
	Dimension (mm):	526(H)mmX55(D)mmX119(W)mm
3. Evaporator		
	Manufacture:	Foshan Huize Heat Exchange Equipment Co., Ltd.
	Type:	Hydrophilic aluminum
	Heat exchanger:	Finned-coil heat exchanger
	Dimension (mm):	720(L)mmX352(H)mmX1200(D)mm
4. Fan motor		
	Manufacture:	Jiangmen LT Motor Co., Ltd
	Type:	RD50HK1
	Fan type:	3 blade
5. Controller		
	Manufacture:	SHENZHEN MEGMEET ELECTRICAL CO., LT
	Type:	HiPlus5000DF-GTR32

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Appendix V Equipment List

No.	Type	Manufacture	Model	Equipment ID	Calibration Due Date
1	R&A performance measuring system	GEI	20kW	-	2021-08-02
2	Temperature and humidity meter	VAISALA	HMD42	H5110021	2021-08-02
3	Platinum resistance	YINUO	Pt100	7430F	2021-05-21
4	Platinum resistance	YINUO	Pt100	7434F	2021-05-21
5	Flowmeter	YOKOGAWA	AXF015G	S5M201965	2021-05-21
6	Flowmeter	YOKOGAWA	AXF040G	S5M805005	2021-05-21
7	Pressure transmitter	MICRO	MPM489	240502	2021-08-03
8	Pressure transmitter	MICRO	MPM489	240503	2021-08-03
9	Water pressure difference transmitter	MICRO	MDM3051	291459	2021-08-03
10	AC source Supply	YANGHONG	YF-3600	-	2021-01-01
11	Water pressure difference transmitter	MICRO	MDM3051	291459	2021-08-03
12	AC source Supply	YANGHONG	YF-3600	-	2021-01-01
13	Temperature and humidity meter	H5110021	HMD42	VAISALA	2021-08-03

-- End of Report --

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