Prüfbericht-Nr.: *Test report no.:*	CN26BLJZ 001	**Auftrags-Nr.:** *Order no.*:	170456130	Seite 1 von 12 *Page 1 of 12*
Kunden-Referenz-Nr.: *Client reference no.:*	-	**Auftragsdatum:** *Order date:*	2026.02.27	
Auftraggeber: *Client:*	Fairland iGarden Co., Ltd. 301-308, Building2, No.4 Hongming Road, Huangpu District, Guangzhou, Guangdong, P.R.China			
Prüfgegenstand: *Test item:*	Air to Water Heat Pump			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	iGXC16T			
Auftrags-Inhalt: *Order content*:	EU energy performance test			
Prüfgrundlage: *Test specification:*	COMMISSION REGULATION (EU) No 813/2013 COMMISSION DELEGATED REGULATION (EU) No 811/2013			

Wareneingangsdatum: *Date of sample receipt:*	2026.03.04
Prüfmuster-Nr.: *Test sample no:*	170456106-002
Prüfzeitraum: *Testing period:*	2026.03.04 – 2026.06.15
Ort der Prüfung: *Place of testing:*	YITUO ELECTRIC CO., LTD
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Guangdong) Ltd.
Prüfergebnis*: *Test result*:*	Pass



geprüft von: *tested by:*	Signed by: David Li	**genehmigt von:** *authorized by:*	Signed by: Felix Tong
Datum: *Date:* 2026.07.09		**Ausstellungsdatum:** *Issue date:* 2026.07.09	
Stellung */ Position:*	Project Engineer	**Stellung** */ Position:*	Authorizer

Sonstiges */ Other:* This report is only for heating capacity test and sound power level test.

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:* Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* *Legend:*	*P(ass) = passed a.m. test specification(s)*	*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

Only for reference

Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. *The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.* *Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.*
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. *As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.*
3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. *Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report.* *Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.*
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the “Zero Guard Band Rule” and “Simple Acceptance” in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.

Only for reference

Testing results summary

Model designation	iGXC16T	
Function	Heating (Average)	
Outlet temperature (°C)	35	55
Design load (kW)	15.86	14.69
Annual energy consumption (kWh)	6292	7570
Seasonal space heating energy efficiency	205	157
Energy class	A+++	A+++

Summary of testing

1. The appliance was evaluated capacity test according to EN 14825:2013, EN 14825:2022, EN 14511-2:2022 and EN 14511-3:2022.
2. The appliance was tested at outlet temperature 35°C and 55°C.
3. The appliance was evaluated sound power level test according to EN 12102:2013 and EN 12102-1:2022.
4. All tests were performed on the model iGXC16T.
5. The test location is below.

   For heating capacity test

   YITUO ELECTRIC CO., LTD

   NO.2 First Floor, B06-1, Science and Technology Industrial Park, High-tech Zone, Gaoli Community, Ronggui Town, Shunde District, Foshan Guangdong P.R. China

   For sound power level test

   China Quality Certification Centre Co.,Ltd.

   No.11 South of Shenghui Road, Nantou, Zhongshan,Guangdong, China

Test sample particulars .....:

Classification of installation and use .....: Fixed appliance

Type of the appliance .....: Air to water heat pump

Function of the appliance .....: Space heating and cooling

Heating season (heating function applicable).....: Average

Possible test case verdicts:

- test case does not apply to the test object ..... : N/A
- test object does meet the requirement ..... : P(Pass)
- test object does not meet the requirement ..... : F(Fail)

Testing..... :

Date of receipt of test item..... : See cover page

Date (s) of performance of tests..... : See cover page

Only for reference

General product information

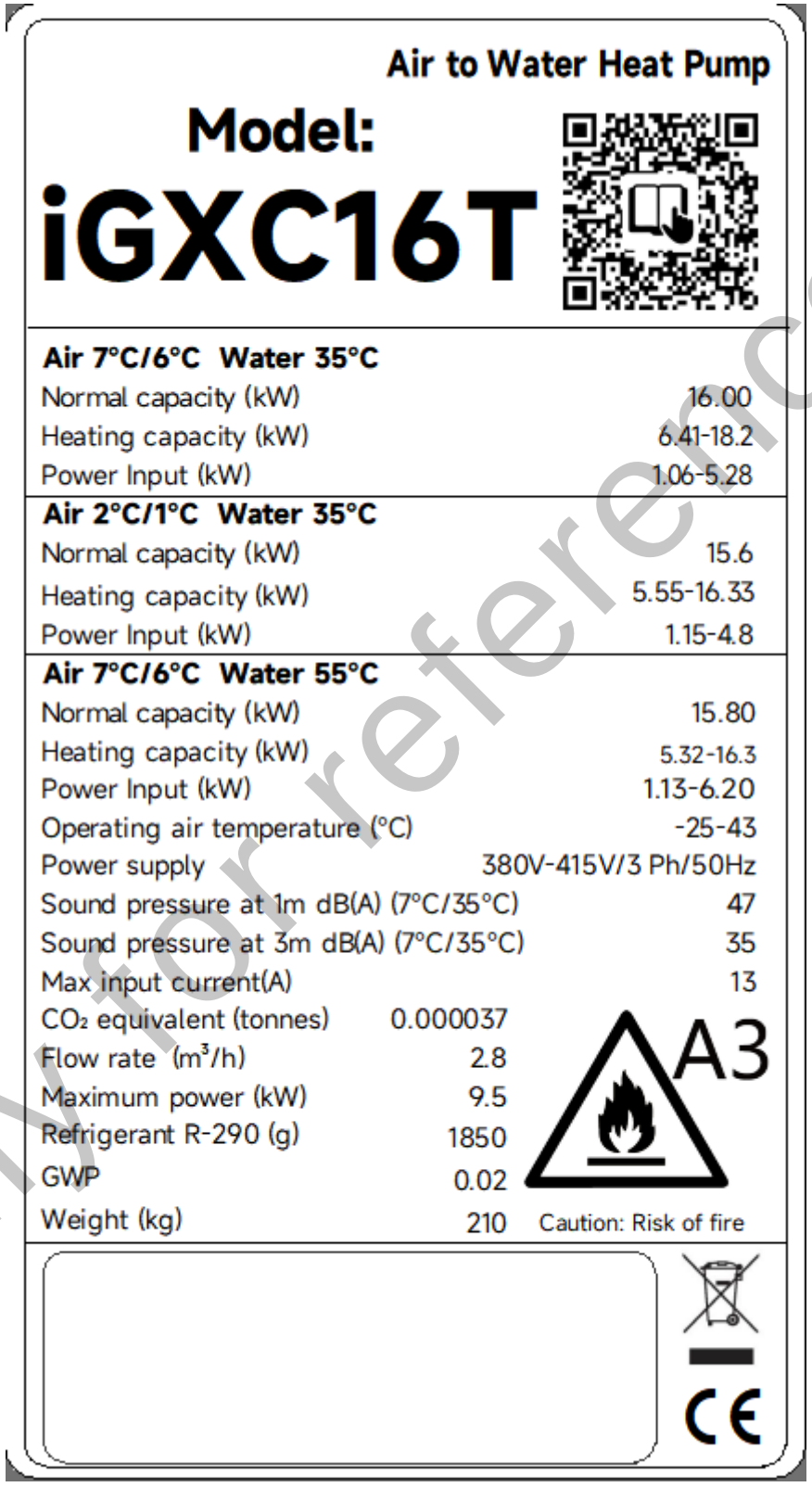
The appliance is air to water heat pump for space heating which installed at outdoor.

The information of compressor, fan motor and water pump are listed as below.

Object / part No.	Manufacturer/ trademark	Type / model	Technical data
Compressor	Guang dong Meizhi Compressor LTD	EDTQ750D66ENT	DC 230V INVERTER, 180Hz, 3490W, 7.5A R290
Up fan motor	Jangsu match-well Electrical Products Company Limited	MWS200-8K-PD39	DC380V, 220W, 8P
Low fan motor	Jangsu match-well Electrical Products Company Limited	MWS200-8K-PD35	DC380V, 220W, 8P
Water pump	WILO SEWilopark 144263 DortmundGermany (Wilo CHZ)	Para 25/9	230V, 87W, 50/60Hz, Max. delivery head: 9m, Max. volume flow: 4.50 m³/h
Alternate	ANHUI Shinhoo CANNED MOTOR PUMPCO.,LTD.	GPA25-9a H	220-240V, 95W, 50/60Hz, Max. delivery head: 9m, Max. volume flow: 4.50 m³/h
Alternate	Grundfos Holding A/S	GFFLH	230V 50/60Hz, 90W
Alternate	SHIMGE PUMP(JIANGSU)CO., LTD	APM25-9-130S PWM1	230V 50/60Hz, 95W

Only for reference

Rating labels and marking:



Only for reference

COMMISSION REGULATION (EU) No 813/2013 COMMISSION DELEGATED REGULATION (EU) No 811/2013			
Clause	Requirement - Test	Result - Remark	Verdict

COMMISSION REGULATION (EU) No 813/2013			
Article 1	Subject matter and scope		P
1	This Regulation establishes ecodesign requirements for the placing on the market and/or putting into service of space heaters and combination heaters with a rated heat ouput heater ≤ 400 kW including those integrated in packages of space heater, temperature contorl and solar device or packages of combination heater, temperautre control and solar device as defined in article 2 of Commission Delegated Regulation (EU) No 811/2013.		P
2	This Regulation shall not apply to: (a) heaters specifically designed for using gaseous or liquid fuels predominantly produced from biomass; (b) heaters using solid fuels; (c) heaters within the scope of Directive 2010/75/EU of the European Parliament and of the Council; (d) heaters generating heat only for the purpose of providing hot drinking or sanitary water; (e) heaters for heating and distributing gaseous heat transfer media such as vapour or air; (f) cogeneration space heaters with a maximum electrical capacity of 50 kW or above. (g) heat generators designed for heaters and heater housings to be equiped with such heat generators placed on the market before 1 January 2018 to replace identical heat generators and identical heater housings. The replacement product or its packaging shall clearly indicate the heater for which it is intended.		N/A
Article 3	Ecodesign requirements and timetable		P
1	The ecodesign requirements for heaters are set out in Annex II.		P
2	Each ecodesign requirement shall apply in accordance with the following timetable:		P
	(a) from 26 September 2015: (i) heates shall meet the requirements set out in Annex II, points 1(a), 3 and 5; (ii) combination heaters shall meet the requirements set out in Annex II, point 2(a);		N/A

Only for reference

COMMISSION REGULATION (EU) No 813/2013 COMMISSION DELEGATED REGULATION (EU) No 811/2013			
Clause	Requirement - Test	Result - Remark	Verdict
	(a) from 26 September 2017: (i) electric space heaters, electric combination heaters, cogeneration space heaters, heat pump space heaters and heat pump combination heaters shall meet the requirements set out in Annex II, point 1(b); (ii) combination heaters shall meet the requirements set out in Annex II, point 2(b);		P
	(a) from 26 September 2018 heaters shall meet the requirements set out in Annex II, point 4(a).		N/A
3	Compliance with ecodesign requirements shall be measured and calculated in accordance with the requirements set out in Annex III.		P
Annex II	Ecodesign requirements		P
1	Requirements for seasonal space heating energy efficiency		P
	(a) From 26 September 2015 the seasonal space heating energy efficiency and useful efficiencies of heaters shall not fall below the following values:		N/A
	- Heat pump space heaters and heat pump combination heaters, with the exception of low-temperature heat pumps: 100%		N/A
	- Low-temperature heat pumps: 115%		N/A
	(b) From 26 September 2017 the seasonal space heating energy efficiency and useful efficiencies of heaters shall not fall below the following values:		P
	- Heat pump space heaters and heat pump combination heaters, with the exception of low-temperature heat pumps: 110%		P
	- Low-temperature heat pumps: 125%		P
2	Requirements for water heating energy efficiency		N/A
	(a) From 26 September 2015 the water heating energy efficiency of combination heaters shall not fall below the following values:		N/A
	<table><tr><td>Declared load profile</td><td>3XS</td><td>XXS</td><td>XS</td><td>S</td><td>M</td><td>L</td><td>XL</td><td>XXL</td><td>3XL</td><td>4XL</td></tr><tr><td>Water heating energy efficiency</td><td>22%</td><td>23%</td><td>26%</td><td>26%</td><td>30%</td><td>30%</td><td>30%</td><td>32%</td><td>32%</td><td>32%</td></tr></table>		-
	(a) From 26 September 2017 the water heating energy efficiency of combination heaters shall not fall below the following values:		N/A

Only for reference

COMMISSION REGULATION (EU) No 813/2013 COMMISSION DELEGATED REGULATION (EU) No 811/2013			
Clause	Requirement - Test	Result - Remark	Verdict

	Declared load profile	3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL	-
	Water heating energy efficiency	32%	32%	32%	32%	36%	37%	38%	60%	64%	64%	
3	Requirements for sound power level											P
	From 26 September 2015 the sound power level of heat pump space heaters and heat pump combination heaters shall not exceed the following values:											P

Rated heat output ≤ 6 kW		6 kW < Rated heat output ≤ 12 kW		12 kW < Rated heat output ≤ 30 kW		30 kW < Rated heat output ≤ 70 kW		-
indoor	outdoor	indoor	outdoor	indoor	outdoor	indoor	outdoor	
60 dB	65 dB	65 dB	70 dB	70 dB	78 dB	80 dB	88 dB	

4	Requirements for emissions nitrogen oxides		N/A
5	Requirements for product information		N/A
	From 26 September 2015 the following product information on heaters shall be provided:		N/A
	(a) the instruction manuals for installers and end-users, and free access websites of manufacturers, their authorised representatives and importers shall contain the following elements:		N/A
	- For heat pump heaters and heat pump combination heaters, the technical parameters set out in Table 2, measured and calculated in accordance with Annex III;		N/A
	- Any specific precautions that shall be taken when the heater is assembled, installed or maintained;		N/A
	- Information relevant for disassembly, recycling and/or disposal at end-of-life;		N/A
Annex III	Measurements and calculations		P

COMMISSION DELEGATED REGULATION (EU) No 811/2013			
Annex II	Energy efficiency classes		P
1	Seasonal space heating energy efficiency classes		P

Only for reference

COMMISSION REGULATION (EU) No 813/2013 COMMISSION DELEGATED REGULATION (EU) No 811/2013			
Clause	Requirement - Test	Result - Remark	Verdict
	The seasonal space heating energy efficiency class of a heater, with the exception of low-temperature heat pumps and heat pump space heaters for low-temperature application, shall be determined on the basis of its sensonal space heating energy efficiency as set out in Table 1.		P
	The seasonal space heating energy efficiency class of a low-temperature heat pumps and a heat pump space heaters for low-temperature application shall be determined on the basis of its sensonal space heating energy efficiency as set out in Table 2.		P
	The seasonal space heating energy efficiency of a heater shall be calculated in accordance with point 3 and 4 of Annex VII, for heat pump space heaters, heat pump combination heaters and low-temperature heat pumps under average climate conditions.		P
2	Water heating energy efficiency classes		N/A
	The water heating energy efficiency class of a combination heater shall be determined on the basis of its water heating energy efficiency as set out in Table 3.		N/A
	The water heating energy efficiency of a combination heater shall be calculated in accordance with point 5 of Annex VII.		N/A

Only for reference

Measurements and calculations

Outlet temperautre °C	35					
Outlet temperautre type	☐ Fixed outlet ☒ Variable outlet					
Test result	Test condition					
	A	B	C	D	E	F
Inlet dry bulb temperature for outdoor air °C	-6.99	2.02	7.00	12.01	-10.00	-6.99
Inlet wet bulb temperature for outdoor air °C	-7.99	1.00	6.00	11.01	-11.00	-7.99
Inlet temperatures for indoor °C	29.00	25.04	22.01	19.83	29.95	28.99
Outlet temperatures for indoor °C	33.98	30.03	26.97	23.99	35.04	33.99
Measured voltage V	401.9	400.7	399.4	399.4	401.0	399.6
Measured frequency Hz	50.0	50.0	50.0	50.0	50.0	50.0
Measured capacity W	14083	8535	5484	4453	14671	14083
Measured power input W	4548	1730	790	477	5776	4548
Water volume flow rate m^3/h	2.43	1.47	0.95	0.92	2.48	2.43
Static pressure difference kPa	39.8	16.6	8.3	8.0	41.3	39.8
Compressor frequency for inverter type Hz	78	37	21	15	87	78
Meausred power input of compressor off state W	25	25	25	25	25	25
Corrections of the power input of liquid pump if applicable						
P_{hydrau} W	27	7	2	2	28	27
Efficiency of the pump	0.33	0.20	0.14	0.14	0.33	0.33
Capacity correction W	55	28	13	13	57	55
Power input correction W	82	34	16	15	86	82
Effective capacity W	14028	8507	5471	4440	14613	14028
Effecitve power input W	4466	1696	774	462	5690	4466
Calculated COP	3.14	5.02	7.07	9.60	2.57	3.14
Electric power consumption during thermostat-off mode, standby mode, crankcase heater mode and off mode						
Off mode kW	0.025					
Thermostat-off mode kW	0.025					
Standby mode kW	0.025					
Crankcase heater mode kW	0.030					

Calculations for seasonal space heating energy efficiency									
Test condition	Outdoor heat exchanger	Indoor heat exchanger	Part Load Ratio %	Part Load kW	Tested Capacity kW	Tested COP	Cd	CR	COP at A, B, C, D, E, F condition
	Outdoor air °C	Outlet water temperature °C							

Only for reference

A	-7	34	88.46%	14.03	14.028	3.14	0.99	1.00	3.14
B	2	30	53.85%	8.54	8.507	5.02	0.99	1.00	5.02
C	7	27	34.62%	5.49	5.471	7.07	0.97	1.00	7.07
D	12	24	15.38%	2.44	4.440	9.60	0.95	0.55	9.20
E	-10	35.3	100.00%	15.86	14.613	2.57	1.00	1.00	2.57
F	-7	34.0	88.46%	14.03	14.028	3.14	0.99	1.00	3.14
SCOPon	5.22				SCOPnet	5.24			
SCOP	5.21								
η_s	205								

Remark: test condition D has been conducted with minimum water volume flow rate.

Outlet temperautre °C	55					
Outlet temperautre type	☐ Fixed outlet ☒ Variable outlet					
Test result	Test condition					
	A	B	C	D	E	F
Inlet dry bulb temperature for outdoor air °C	-6.98	2.02	6.99	12.01	-9.98	-6.98
Inlet wet bulb temperature for outdoor air °C	-7.98	1.01	6.00	11.00	-10.97	-7.98
Inlet temperatures for indoor °C	43.86	34.46	31.13	25.95	46.96	43.86
Outlet temperatures for indoor °C	51.92	41.94	35.96	30.02	54.99	51.92
Measured voltage V	402.1	401.3	399.5	399.4	400.4	402.1
Measured frequency Hz	50.0	50.0	50.0	50.0	50.0	50.0
Measured capacity W	13020	8003	5172	4351	12603	13020
Measured power input W	5433	2055	996	592	6286	5433
Water volume flow rate m^3/h	1.39	0.92	0.92	0.92	1.35	1.39
Static pressure difference kPa	15.2	8.0	8.0	8.0	14.5	15.2
Compressor frequency for inverter type Hz	78	37	21	15	79	78
Meausred power input of compressor off state W	25	25	25	25	25	25
Corrections of the power input of liquid pump if applicable						
P_{hydrau} W	6	2	2	2	5	6
Efficiency of the pump	0.19	0.14	0.14	0.14	0.18	0.19
Capacity correction W	26	13	13	13	25	26
Power input correction W	31	15	15	15	30	31
Effective capacity W	12994	7990	5159	4338	12578	12994
Effecitve power input W	5402	2040	981	577	6256	5402
Calculated COP	2.41	3.92	5.26	7.51	2.01	2.41

Only for reference

Electric power consumption during thermostat-off mode, standby mode, crankcase heater mode and off mode	
Off mode kW	0.025
Thermostat-off mode kW	0.025
Standby mode kW	0.025
Crankcase heater mode kW	0.030

Calculations for seasonal space heating energy efficiency

Test condition	Outdoor heat exchanger	Indoor heat exchanger	Part Load Ratio %	Part Load kW	Tested Capacity kW	Tested COP	Cd	CR	COP at A, B, C, D, E, F condition
	Outdoor air °C	Outlet water temperature °C							
A	-7	52	88.46%	12.99	12.994	2.41	1.00	1.00	2.41
B	2	42	53.85%	7.91	7.990	3.92	0.99	1.00	3.92
C	7	36	34.62%	5.08	5.159	5.26	0.97	1.00	5.26
D	12	30	15.38%	2.26	4.338	7.51	0.96	0.52	7.23
E	-10	55.3	100.00%	14.69	12.578	2.01	1.00	1.00	2.01
F	-7	52.0	88.46%	12.99	12.994	2.41	1.00	1.00	2.41
SCOPon	4.01				SCOPnet	4.04			
SCOP	4.01								
η_s	157								

Remark: test condition B, C and D have been conducted with minimum water volume flow rate.

Test result	Indoor unit	Outdoor unit
Sound power level dB(A)	-	54.7 at Compressor frequency: 21Hz The expanded uncertainty: U=k×uc =2×0.79=1.6dB
Sound power level dB(A)	-	65.8 at Compressor frequency: 60Hz The expanded uncertainty: U=k×uc =2×0.79=1.6dB

End of report

Only for reference