Prüfbericht-Nr.: *Test report no.:*	CN24JZY8 001	**Auftrags-Nr.:** *Order no.*:	170370686	Seite 1 von 12 *Page 1 of 12*
Kunden-Referenz-Nr.: *Client reference no.:*	-	**Auftragsdatum:** *Order date:*	2024.02.04	
Auftraggeber: *Client:*	Foshan Chigo Intelligent Environmental Equipment Co., Ltd. Room 208, 1st Floor, Technology Building, No.1 Shengli Industrial Zone, Lishui Town, Nanhai, Foshan, Guangdong, P.R. China.			
Prüfgegenstand: *Test item:*	Multi split type air conditioner			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	Indoor unit CS-09V3G-1Cxyzm Outdoor unit Z3OC-27HRIN4			
Auftrags-Inhalt: *Order content*:	EU energy performance test			
Prüfgrundlage: *Test specification:*	COMMISSION REGULATION (EU) No 206/2012 COMMISSION DELEGATED REGULATION (EU) No 626/2011			

Wareneingangsdatum: *Date of sample receipt:*	2024.02.04
Prüfmuster-Nr.: *Test sample no:*	See page 3
Prüfzeitraum: *Testing period:*	2024.02.04 – 2024.03.25
Ort der Prüfung: *Place of testing:*	Guangdong Chigo Technology Co., Ltd.
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Guangdong) Ltd.
Prüfergebnis*: *Test result*:*	Pass

geprüft von: *tested by:*	Victor He	**genehmigt von:** *authorized by:*	Felix Tong
Datum: *Date:* 2024.03.25	Signed by: Victor He	**Ausstellungsdatum:** *Issue date:* 2024.03.25	Signed by: Felix Tong
Stellung / *Position:*	Project Engineer	**Stellung** / *Position:*	Reviewer

Sonstiges / *Other:* This report is only for cooling and heating capacity test.

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

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.*
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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.

Testing results summary

Model designation	Outdoor unit Z3OC-27HRIN4 with three indoor units CS-09V3G-1C181A-W3		
Brand	iCongo		
Function	Cooling	Heating (Average)	Heating (Warmer)
Design load (kW)	7.9	6.8	-
Annual energy consumption (kWh)	437	2379	-
Tested SEER or SCOP	6.34	4.02	-
Energy class	A++	A+	-

Summary of testing

1. The appliance was evaluated capacity test according to EN 14825:2016, EN 14825:2022 and EN 14511-3:2022.
2. The capacity test method is air enthalpy method.
3. All tests were performed on outdoor unit Z3OC-27HRIN4 with three indoor units CS-09V3G-1C181A-W3 as representative.
4. The test location is below.

   Guangdong Chigo Technology Co., Ltd.

   No.1, Shengli Industrial Park, Lishui Town, Nanhai District, Foshan City, Guangdong Province, P.R.China
5. Test samples are below.

   JAA0GSPB100749000012, JAA0GSPB100749000023 and JAA0GSPB100749000034 for indoor unit, SCKOWDQ2AP3002000001 for outdoor unit.

Test sample particulars.....:

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

Type of the appliance.....: Multi split type appliance

Function of the appliance.....: Cooling and heating

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

General product information

1. The appliance is multi split type air conditioner which consist of one outdoor unit and three indoor units.
2. The appliance has cooling mode and heating mode.

Model list

Combination code	Outdoor unit	Indoor unit	Numbers of indoor unit
A1	Z3OC-27HRIN4	CS-09V3G-1Cxyzm	3

Model description

Remark: x can be A to Z or blank, which denote control number of the factory. y can be 0 to 999, which denote different panel appearance of indoor unit. z can be A to Z or blank, which denote different color of panel of indoor unit. m can be "-W3" or blank, '-W3' denote it has WIFI function..

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

Object / part No.	Manufacturer/ trademark	Type / model	Technical data
Compressor	GMCC	KTN210D60UMT3	DC INVERTER COMPRESSOR 156VDC, at 180Hz Refrigerant:R32/R410A
Outdoor fan motor	Jiangmen LT Motor Co.,Ltd.	RDN75HA10	DC310V, 75W, Class E
Indoor fan motor	Green-Intelligence Electrical Equipment co., LTD, Nanhai District, Foshan City	YDK-16-4 9	220V-240V;50Hz;16W, Class E

Rating labels and marking:

iCongo

FROM CHIGO TECH

One-three split type air conditioner

Outdoor Model		Z3OC-27HRIN4
Cooling	Capacity	27000Btu/h
	Range	(5500-28000)Btu/h
Heating	Capacity	30500Btu/h
	Range	(5650-31500)Btu/h
Excessive operating pressure	Discharge	4.3MPa
	Suction	1.6MPa
Maximum allowable pressure		4.4Mpa
Power source		220-240V~ 50Hz
Rated power input		3000W
Rated current		13.1A
Refrigerant/Charge		R32/1.7kg
Net weight		46kg
Resistance class		IPX4

Manufacturer:
Foshan Chigo Intelligent Environmental Equipment Co.,Ltd.
Room 208, 1st Floor, Technology Building, No.1 Shengli Industrial Zone, Lishui Town, Nanhai, Foshan, Guangdong, P.R.China.

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.
GWP: 675; 1.148 tonnes CO_2 equivalent.

CE

Caution
Refrigerant:R32

Caution,risk of fire

iCongo

FROM CHIGO TECH

Split Wall-Mounted Type Air Conditioner

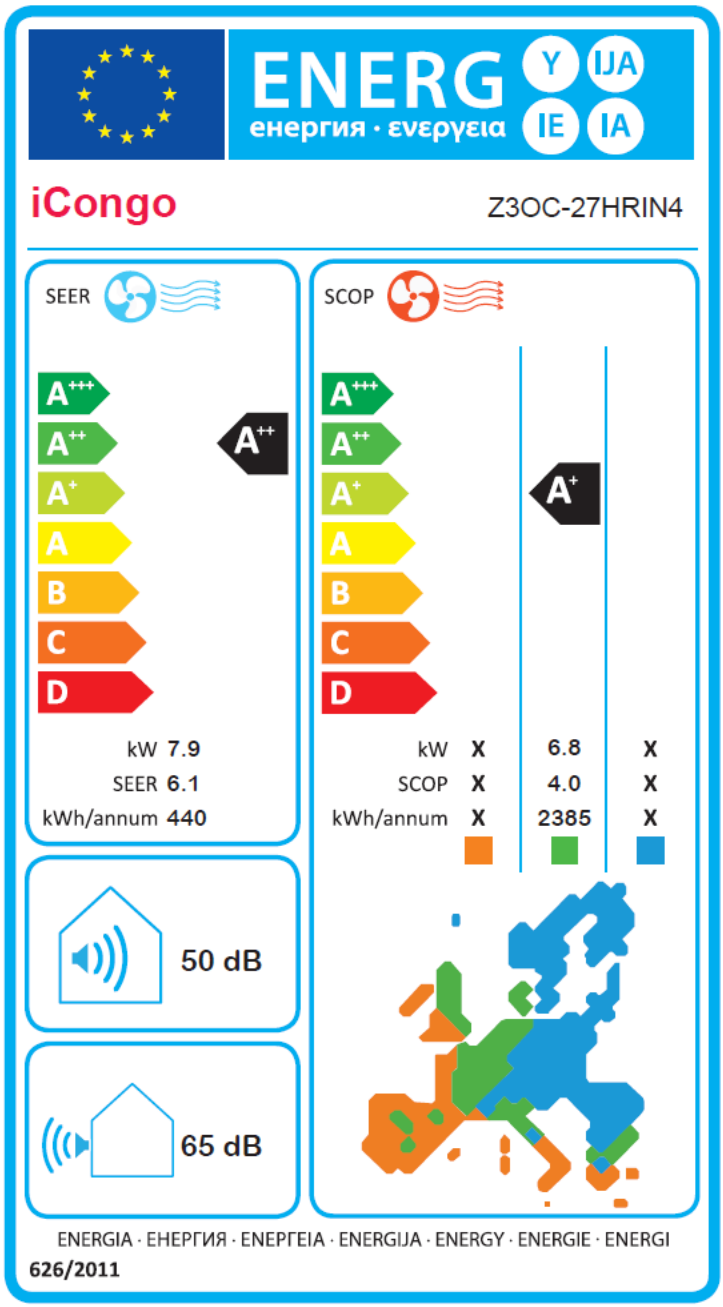
Indoor Model	CS-09V3G-1C181A-W3
Rated voltage	220-240V~
Rated frequency	50Hz
Rated cooling capacity	9000Btu/h
Rated heating capacity	10000Btu/h
Net weight of indoor unit	8kg
Indoor discharge air- flow	600m³/h
Sound power level	32-50dB(A)
Rated indoor unit current	0.2A
Rated indoor unit power	40W
Electric shock protection class	I
Waterproof grade(outdoor unit)	IPX4
Maximum allowable pressure of outdoor heat exchanger	4.4MPa

Manufacturer:
Foshan Chigo Intelligent Environmental Equipment Co.,Ltd.
Room 208, 1st Floor, Technology Building, No.1 Shengli Industrial Zone, Lishui Town, Nanhai, Foshan, Guangdong, P.R.China.

CE

Caution
Refrigerant:R32

Caution,risk of fire


ENERG Y IJA IE IA
енергия · ενεργεια
iCongo
Z3OC-27HRIN4
SEER
A+++
A++
A+
A
B
C
D
A++
kW 7.9
SEER 6.1
kWh/annum 440
SCOP
A+++
A++
A+
A
B
C
D
A+
kW X 6.8 X
SCOP X 4.0 X
kWh/annum X 2385 X
50 dB
65 dB
ENERGIA · ЕНЕРГИЯ · ΕΝΕΡΓΕΙΑ · ENERGIJA · ENERGY · ENERGIE · ENERGI
626/2011

COMMISSION REGULATION (EU) No 206/2012 COMMISSION DELEGATED REGULATION (EU) No 626/2011			
Clause	Requirement - Test	Result - Remark	Verdict

COMMISSION REGULATION (EU) No 206/2012			
Article 1	Subject matter and scope		P
1	This Regulation establishes eco-design requirements for the placing on the market of electric mains-operated air conditioners with a rated capacity of ≤ 12 kW for cooling, or heating if the product has no cooling function, and comfort fans with an electric fan power input ≤ 125W.	Rated capacity ≤ 12 kW	P
2	This Regulation shall not apply to: (a) appliances that use non-electric energy sources; (b) air conditioners of which the condenser-side or evaporator- side, or both, do not use air for heat transfer medium.		N/A
Article 2	Definitions For the purposes of this Regulation, the definitions in Article 2 of Directive 2009/125/EC of the European Parliament and of the Council shall apply.		-
Article 3	Ecodesign requirements and timetable		P
1	The ecodesign requirements for air conditioners and comfort fans are set out in Annex I.		P
2	Each ecodesign requirement shall apply in accordance with the following timetable:		P
	From 1 January 2013: single duct and double duct air conditioners shall correspond to requirements as indicated in Annex I, point 2(a).		N/A
	From 1 January 2013: (a) air conditioners, except single and double duct air conditioners, shall correspond to requirements as indicated in Annex I, point 2(b) and points 3(a), 3(b), 3(c); (b) single ducts and double ducts shall correspond to requirements as indicated in Annex I, points 3(a), 3(b), 3(d); (c) comfort fans shall correspond to requirements as indicated in Annex I, points 3(a), 3(b), 3(e).		N/A
	From 1 January 2014: (a) air conditioners shall correspond to ecodesign requirements as indicated in Annex I, point 2(c); (b) single duct and double duct air conditioners shall correspond to requirements as indicated in Annex I, point 2(d).		P

COMMISSION REGULATION (EU) No 206/2012 COMMISSION DELEGATED REGULATION (EU) No 626/2011			
Clause	Requirement - Test	Result - Remark	Verdict
3	Compliance with ecodesign requirements shall be measured and calculated in accordance with requirements set out in Annex II.		P
Article 4	Conformity assessment		N/A
1	The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall be the internal design control set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.		N/A
2	For the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documen- tation file shall contain the results of the calculation set out in Annex II to this Regulation.		N/A
Article 5	Verification procedure for market surveillance purposes Member States shall apply the verification procedure described in Annex III to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC for compliance with requirements set out in Annex I to this Regulation.		N/A
Article 6	Benchmarks		-
Article 7	Revision		-
Article 8	Entry into force and application		P
1	This Regulation shall enter into force on the 20th day following its publication in the Official Journal of the European Union.		-
2	It shall apply from 1 January 2013.		P
Annex I	Ecodesign requirements		P
1	Definitions applicable for the purposes of the annexes		P
2	Requirements for minimum energy efficiency, maximum power consumption in off-mode and standby mode and for maximum sound power level		N/A
	(a) From 1 January 2013, single duct and double duct air conditioners shall correspond to requirements as indicated in Tables 1, 2 and 3 below, calculated in accordance with Annex II. Single duct and double duct air conditioners and comfort fans shall fulfil the requirements on standby and off mode as indicated in Table 2 below. The requirements on minimum energy efficiency and maximum sound power shall relate to the standard rating conditions specified in Annex II, Table 2.		N/A

COMMISSION REGULATION (EU) No 206/2012 COMMISSION DELEGATED REGULATION (EU) No 626/2011			
Clause	Requirement - Test	Result - Remark	Verdict
	(b) From 1 January 2013, air conditioners, except single and double duct air conditioners, shall correspond to minimum energy efficiency and maximum sound power level requirements as indicated in Tables 4 and 5 below, calculated in accordance with Annex II. The requirements on energy efficiency shall take into account the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable. The requirements on sound power shall relate to the standard rating conditions specified in Annex II, Table 2		N/A
	(c) From 1 January 2014, air conditioners shall correspond to requirements as indicated in the table below, calculated in accordance with Annex II. The requirements on energy efficiency for air conditioners, excluding single and double duct air conditioners, shall relate to the reference design conditions specified in Annex II, Table 3 using the 'Average' heating season where applicable. The requirements on energy efficiency for single and double duct air conditioners shall relate to the standard rating conditions specified in Annex II, Table 2.		P
	(d) From 1 January 2014, single duct and double duct air conditioners and comfort fans shall correspond to requirements as indicated in Table 7 below, calculated in accordance with Annex II.		N/A
3	Product information requirements		N/A
	(a) From 1 January 2013, as regards air conditioners and comfort fans, the information set out in points below and calculated in accordance with Annex II shall be provided on: (i) the technical documentation of the product; (ii) free access websites of manufacturers of air conditioners and comfort fans;		N/A
	(b) The manufacturer of air conditioners and comfort fans shall provide laboratories performing market surveillance checks, upon request, the necessary information on the setting of the unit as applied for the establishment of declared capacities, SEER/EER, SCOP/COP values and service values and provide contact information for obtaining such information.		N/A
	(c) Information requirements for air conditioners, except double duct and single duct air conditioners.		N/A
	(d) Information requirements for single duct and double duct air conditioners.		N/A

COMMISSION REGULATION (EU) No 206/2012 COMMISSION DELEGATED REGULATION (EU) No 626/2011			
Clause	Requirement - Test	Result - Remark	Verdict
	(e) Information requirements for comfort fans.		N/A
Annex II	Measurements and calculations		P
Annex III	Verification procedure for market surveillance purposes		N/A
Annex IV	Benchmarks		-

COMMISSION DELEGATED REGULATION (EU) No 626/2011			
Annex II	Energy efficiency classes		P
1	The energy efficiency of air conditioners shall be determined on the basis of measurements and calculations set out Annex VII.		P
	Both the SEER and SCOP shall take into account the reference design conditions and the operational hours per relevant mode of operation, and the SCOP shall relate to the heating season ‘average’, as laid down in Annex VII. The rated energy efficiency ratio (EER rated) and the rated coefficient of performance (COP rated) shall relate to standard rating conditions, as laid down in Annex VII.		P

Measurements and calculations

Test result	Test condition for cooling mode			
	A	B	C	D
Inlet dry bulb temperature for indoor air °C	26.99	27.00	26.97	26.99
Inlet wet bulb temperature for indoor air °C	19.00	19.00	19.00	18.99
Inlet dry bulb temperature for outdoor air °C	35.01	29.98	24.98	20.02
Inlet wet bulb temperature for outdoor air °C	24.00	19.99	17.99	14.98
Measured cooling capacity W	7913	5988	4141	2303
Measured power input W	2425	1143	516	207
Measured sensible cooling capacity W	6381	5585	3754	2081
Measured latent cooling capacity W	1532	403	387	222
Air volume flow rate m^3/h	1541.1	1607.6	1715.4	1682.0
Compressor frequency for inverter type Hz	64	42	21	10
Electric power consumption during thermostat-off mode, standby mode, crankcase heater mode and off mode				
Off mode kW	0.0140			
Standby mode kW	0.0140			
Thermostat-off mode kW	0.0140			
Crankcase heater mode kW	0.0000			

Calculations for SEER

Test condition	Outdoor air °C	Part Load Ratio %	Part Load kW	Tested Capacity kW	Tested EER	Cd	CR	EER at A, B, C, D, E, F condition
A	35	100%	7.91	7.913	3.26	0.25	1.00	3.26
B	30	74%	5.83	5.988	5.24	0.25	1.00	5.24
C	25	47%	3.75	4.141	8.03	0.25	0.91	7.83
D	20	21%	1.67	2.303	11.13	0.25	0.72	10.36
SEER	6.34							

Test result	Test condition for heating mode (Average)					
	A	B	C	D	E	F
Inlet dry bulb temperature for indoor air °C	20.00	19.99	20.00	19.98	19.99	20.00
Inlet wet bulb temperature for indoor air °C	15.00	15.00	15.00	15.00	15.01	15.00

Inlet dry bulb temperature for outdoor air °C	-7.00	2.05	7.04	12.10	-9.99	-7.00
Inlet wet bulb temperature for outdoor air °C	-7.95	1.01	5.98	11.02	-11.02	-7.95
Measured heating capacity W	6041	3560	2321	1369	5550	6041
Measured power input W	2156	881	469	262	2095	2156
Air volume flow rate m^3/h	1715.7	1406.4	1427.0	1425.4	1718.3	1715.7
Compressor frequency for inverter type Hz	77	35	19	10	78	77

Electric power consumption during thermostat-off mode, standby mode, crankcase heater mode and off mode	
Off mode kW	0.0140
Standby mode kW	0.0140
Thermostat-off mode kW	0.0140
Crankcase heater mode kW	0.0250

Calculations for SCOP

Test condition	Outdoor air °C	Part Load Ratio %	Part Load kW	Tested Capacity kW	Tested COP	Cd	CR	COP at A, B, C, D, E, F condition
A	-7	88%	6.04	6.041	2.80	0.25	1.00	2.80
B	2	54%	3.68	3.560	4.04	0.25	1.00	4.04
C	7	35%	2.36	2.321	4.95	0.25	1.00	4.95
D	12	15%	1.05	1.369	5.23	0.25	0.77	4.92
E	-10	100%	6.83	5.550	2.65	0.25	1.00	2.65
F	-7	88%	6.04	6.041	2.80	0.25	1.00	2.80
SCOPon	4.03			SCOPnet	4.06			
SCOP	4.02							

End of report