

Product name: Air Conditioner

Brand name: KOLIN

Type(s)/Model(s): Air Conditioner ST Inverter/ Indoor: KS-IW20-GPAI13P1M32
Outdoor: KS-IW20-GPAI13P1M32

Purpose of Testing: **Private Test**

Rating(s): 230 V~ 60 Hz 10.58 A 2,200 W
Cooling rating: 1,410 W 6.13 A 20,052 kJ/h
Refrigerant: R32/ 0.90 kg

Manufacturer: Made in China

Standard: PNS ISO 5151: 2014 (Non – ducted air conditioners and heat pumps)
PNS ISO 16358 – 1:2014 (Cooling seasonal performance factor)

Test procedure: DOE – Philippine Energy Labeling Program

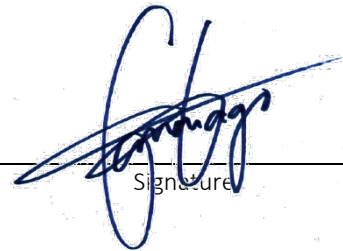
Client name: **KOLIN PHILIPPINES INTERNATIONAL, INC.**
Address: 1854 STA RITA ST., GUADALUPE NUEVO, MAKATI CITY. METRO MANILA

Testing Laboratory: **Duinus Smart Tech Inc.**
Address: 1238 EDSA, Apolonio Samson, Quezon City

Date of Issue: 05 September 2025

Tested By:

Michelle Ann Margarette L. Mañago



Signature

Reviewed By:

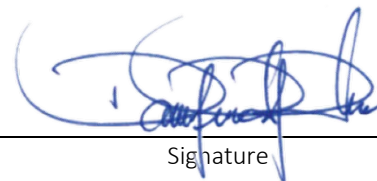
Reynaldo F. Macaranas Jr.



Signature

Approved By:

Dane Pio de Roda



Signature

General Remarks

This test report shall not be reproduced except in full without written approval of testing laboratory.

This test results presented in this report relate only to the test item tested.

Throughout this report a comma is used as a decimal separator.

Testing

Date of Receipt of test item:

11 August 2025

Date(s) of performance of test:

12 – 27 August 2025

Particulars

Electrical safety class:

Class I

IP number:

IPX4 at outdoor side

Switch:

Yes

Electronic Circuit:

Yes

Oscillating Mechanism:

Yes

Accessories:

Yes

Type of supply cord attachment:

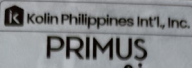
Terminal

Summary of Testing

ENERGY PERFORMANCE TEST			
Test Condition	MEASURED VALUES		
	Cooling Capacity (W)	Power Input (W)	CSPF
Full Load	5899	1357	6,59
Half Load	3093	531	

COMPLIANCE TO PERFORMANCE REQUIREMENTS			
PARAMETERS	REQUIREMENTS	PERCENTAGE %	REMARKS
MEP	[$\geq 3,08$ for units with rated cooling capacity below 3,33kW / $\geq 2,81$ for units with rated cooling capacity of 3,33kW to 9,99kW / NA For units with rated cooling capacity of 10,0kW to 14,0kW]	-	P
Cooling Capacity	$\geq 90\%$	105,9	P

Copy of marking plate:



PRIMUS
AJ

INVERTER SPLIT TYPE AIR CONDITIONER

Model : KS-W20-GPA13P1M32-4

Phase : Single

Voltage : 230 V~

Frequency : 60 Hz

Nominal Capacity : 2.0 hp

Cooling Capacity : 20,052 (6,016 - 22,057) kJ/h

Power Input : 5.57 (1.67 - 6.13) kW

Input Current : 1,410 (282 - 1,692) W

Max. Power Input : 6.13 A

Max. Power Input : 2,200 W / 10.58 A

CSPF: 5.96

Max. Allowable Pressure : 4.3 MPa

Max. Discharge Pressure : 4.3 MPa

Max. Suction Pressure : 2.5 MPa

Sound Pressure Level : 59 dB(A)

Moisture Protection : IPX4

Net Weight : 15 kg

Unit Dimension (WxDxH) : 970x257x347 mm

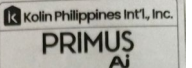
Refrigerant : R32

Refrigerant Charge : 0.90 kg

Refrigerant Piping : 1/4" / 3/8"

Lot No. : 188125001

Serial No. : 18812505-10003



PRIMUS
AJ

INVERTER SPLIT TYPE AIR CONDITIONER

Model : KS-W20-GPA13P1M32-0

Phase : Single

Voltage : 230 V~

Frequency : 60 Hz

Nominal Capacity : 2.0 hp

Cooling Capacity : 20,052 (6,016 - 22,057) kJ/h

Power Input : 5.57 (1.67 - 6.13) kW

Input Current : 1,410 (282 - 1,692) W

Max. Power Input : 6.13 A

Max. Power Input : 2,200 W / 10.58 A

CSPF: 5.96

Max. Allowable Pressure : 4.3 MPa

Max. Discharge Pressure : 4.3 MPa

Max. Suction Pressure : 2.5 MPa

Sound Pressure Level : 59 dB(A)

Moisture Protection : IPX4

Net Weight : 15 kg

Unit Dimension (WxDxH) : 970x257x347 mm

Refrigerant : R32

Refrigerant Charge : 0.90 kg

Refrigerant Piping : 1/4" / 3/8"

Lot No. : 188225001

Serial No. : 18822505-10003

CAUTION

1. Before to release the air inside the indoor unit and place with the outdoor unit.

2. Make sure the additional amount of refrigerant to be charged is based on the gas size and length, please refer to the INSTALLATION INSTRUCTIONS for details.

3. Remove the label due to the opening of the Refrigerant and release before problem to the machine.

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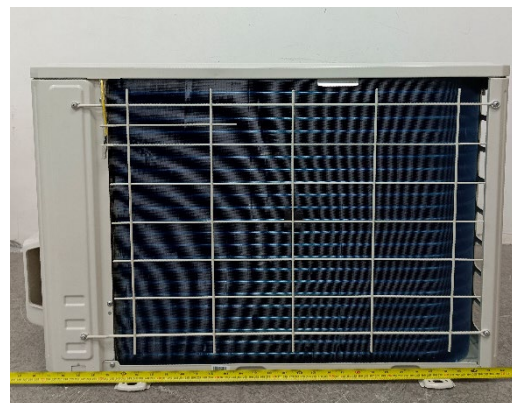
PNS ISO 5151:2014 / PNS ISO 16358 – 1:2014

PHOTO DOCUMENTATION

Front View



Back View



Top View



PNS ISO 5151:2014 / PNS ISO 16358 – 1:2014

PHOTO DOCUMENTATION

Right Side View



Left Side View



Evaporator Section

Air Discharge



Dimension: 69,4cm – 41cm

Tubes



Number of tubes: 21 – 19
Number of rows: 2

Fins



Fins/Inch: 21 – 22 – 22

Tube Diameter



Tube Diameter: 5,94mm Grooving: (✓) Y () N

PNS ISO 5151:2014 / PNS ISO 16358 – 1:2014

PHOTO DOCUMENTATION

Condenser Section

Condenser



Dimension: 87cm – 53,5cm

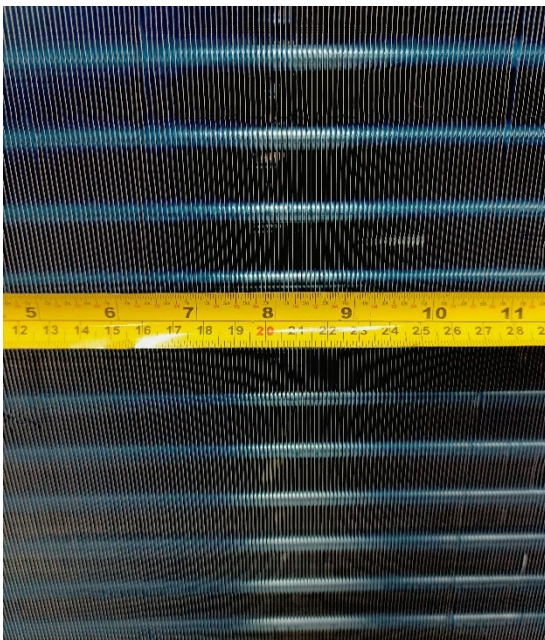
Tubes



Number of tubes: 24 – 24

Number of rows: 2

Fins



Fins/Inch: 19 – 19 – 19

Tube Diameter



Tube Diameter: 6,97mm Grooving: (✓) Y () N

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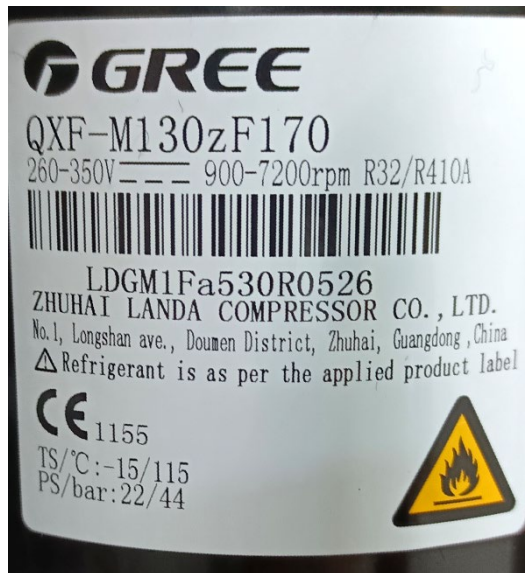
PNS ISO 5151:2014 / PNS ISO 16358 – 1:2014

PHOTO DOCUMENTATION

Compressor

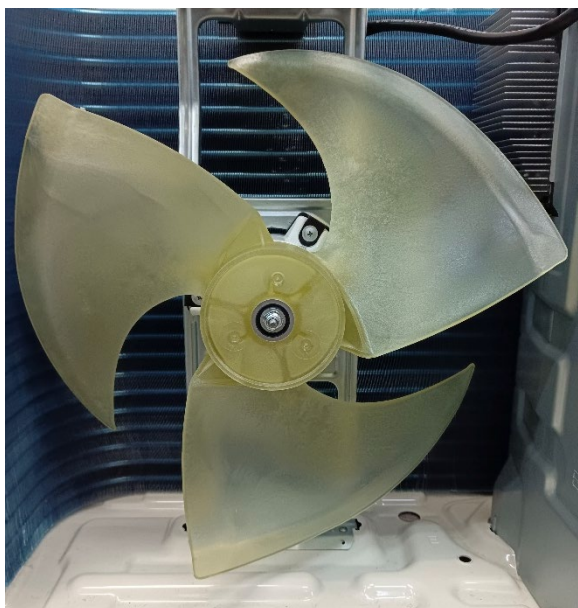


Compressor Label



Fan

Blades



Number of blades: 3

Splasher Ring

No Splasher Ring

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PNS ISO 5151:2014 / PNS ISO 16358 – 1:2014

PHOTO DOCUMENTATION

Fan Motor



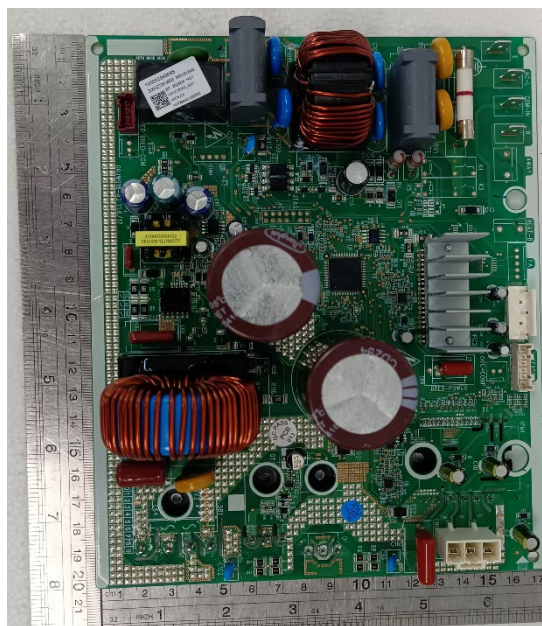
Fan Motor Label



Control



Inverter PCB Board



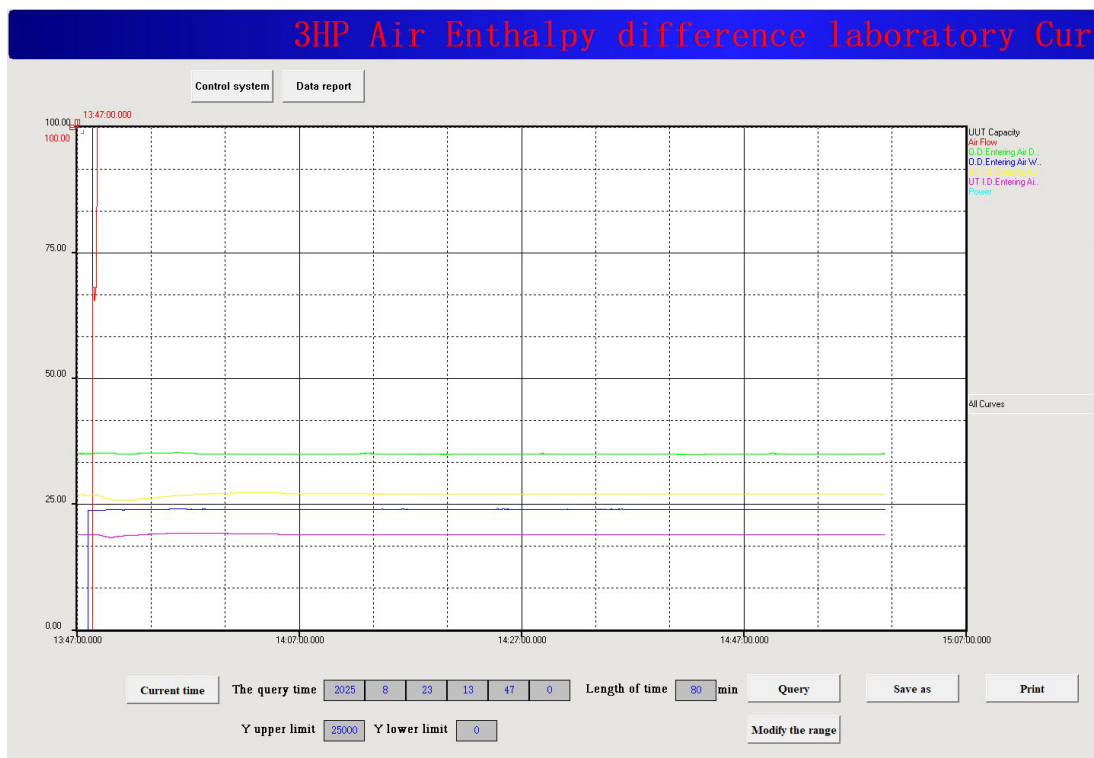
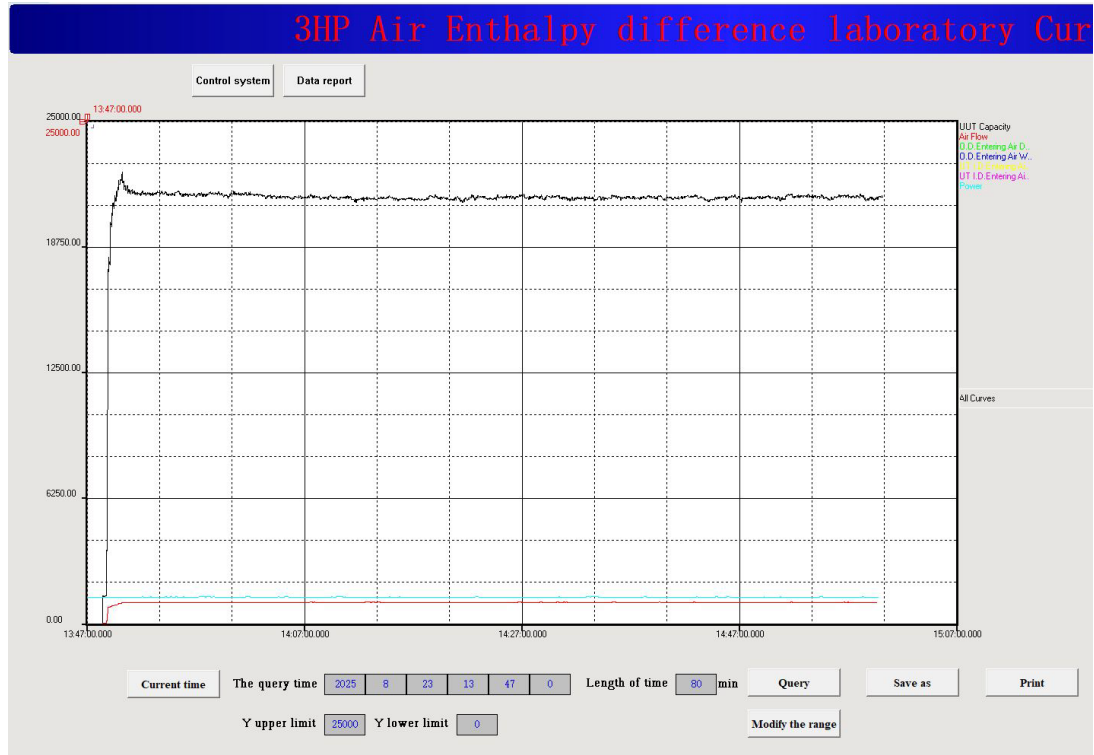
TEST REPORT

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DATA REPORT

Tested Nameplate parameters									
Nameplate project		Nameplate input		Nameplate project		Nameplate input			
Test Time		2025/08/23 15:00:50.7		Serial No.		-----			
Test No.		378431517		Application		Private test			
Model		K-IW20-GPA-13P1M32		Applicant		KOLIN			
Rated Capacity/W		5570		Rated Power/W		1410			
Rated EER/COP		3.95		Rated Airflow		-----			
Date		2025/08/23		Standard		PNS ISO 5151 - PNS ISO 16358			
Observers		AIHH MMLM		Test Location		DSTI			
Objective		Performance Test		Compressor Model		-----			
Inner/Outer fan model		-----		Power supply		230V			
Ref type		R32		Nozzle		70+100			
Condition		Full Load							
Test conditions									
Items		Unit	Value	Items		Unit	Value		
Indoor D.B. Temp.		℃	27.00	Indoor W.B. Temp.		℃	19.00		
Outdoor D.B. Temp.		℃	35.00	Outdoor W.B. Temp.		℃	24.00		
Experimental data									
Items	Unit	No1	No2	No3	No4	No5	No6	No7	Average
Air Flow	m3/h	1093.54	1093.17	1092.41	1091.84	1092.74	1091.08	1094.48	1092.75
Standard airflow	m3/h	1104.60	1104.28	1103.32	1102.77	1103.68	1102.14	1105.47	1102.18
Latent Capacity	W	4918.34	4920.28	4904.91	4910.42	4914.47	4896.12	4918.23	4911.83
Sensible Capacity	W	16329.82	16372.61	16256.93	16340.98	16369.49	16263.67	16340.59	16324.87
Power	W	1357.20	1360.10	1360.10	1357.10	1358.10	1355.00	1352.20	1357.11
EER/COP(kJ/h.W)	kJ/h.W	15.66	15.64	15.56	15.66	15.68	15.62	15.71	15.65
EER/COP	W/W	4.35	4.35	4.32	4.35	4.36	4.34	4.36	4.35
Entering Air Enthalpy	KJ/KG	53.59	53.65	53.63	53.59	53.66	53.56	53.56	53.61
Leaving Air Enthalpy	KJ/KG	37.58	37.61	37.66	37.56	37.61	37.58	37.56	37.60
Enthalpy Dif.	KJ/KG	16.01	16.04	15.96	16.03	16.05	15.98	16.00	16.01
UUT Capacity	W	5902.27	5914.69	5878.29	5903.17	5912.21	5877.72	5905.23	5899.08
UUT Capacity(kJ/h)	kJ/h	21248.16	21292.88	21161.84	21251.40	21283.97	21159.79	21258.83	21236.70
Test data									
Items	Unit	No1	No2	No3	No4	No5	No6	No7	Average
O. D. Entering Air D. B. T	℃	34.95	34.98	35.07	35.04	35.00	34.95	34.96	34.99
O. D. Entering Air W. B. T	℃	23.97	24.01	24.04	24.02	24.01	23.97	23.99	24.00
O. D. RH	%	35.97	36.09	35.91	36.24	35.92	35.84	35.95	35.99
I. D. Entering Air D. B. T	℃	27.02	27.03	27.03	27.01	27.02	26.99	27.01	27.02
I. D. Entering Air W. B. T	℃	19.00	19.02	19.01	19.00	19.02	18.99	18.99	19.00
I. D. Leaving Air D. B. T	℃	14.15	14.15	14.18	14.14	14.16	14.15	14.15	14.15
I. D. Leaving Air W. B. T	℃	13.33	13.34	13.36	13.32	13.34	13.33	13.32	13.33
S. P.	Pa	-0.35	-0.20	-0.50	-0.50	-0.05	-0.20	-0.05	-0.26
NZL D. P.	Pa	417.80	417.54	418.35	416.47	417.15	415.95	418.48	417.39
D. P. T.	℃	15.92	15.93	15.94	15.93	15.94	15.94	15.92	15.93
Ref low-pressure	MPa	1.10	1.10	1.46	1.46	0.37	0.73	1.10	1.05
Ref high-pressure	MPa	12.36	13.46	12.73	13.09	12.36	12.36	12.36	12.67
Atmospheric Press.	KPa	100.56	100.57	100.56	100.56	100.56	100.56	100.56	100.56
UUT Voltage	V	230.20	230.20	230.20	230.20	230.30	230.20	230.30	230.23
UUT Current	A	6.28	6.28	6.29	6.28	6.29	6.28	6.25	6.28
Input Power	W	1357.20	1360.10	1360.10	1357.10	1358.10	1355.00	1352.20	1357.11
UUT Power factor	%	63.00	63.00	63.00	63.00	62.90	62.90	63.10	62.99
UUT Frequency	Hz	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00

DATA REPORT



TEST REPORT

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DATA REPORT

Tested Nameplate parameters

Nameplate project	Nameplate input	Nameplate project	Nameplate input
Test Time	2025/08/23 16:35:14.1	Serial No.	-----
Test No.	378431517	Application	Private test
Model	K-IW20-GPA-13P1M32	Applicant	KOLIN
Rated Capacity/W	5570	Rated Power/W	1410
Rated EER/COP	3.95	Rated Airflow	-----
Date	2025/08/23	Standard	PNS ISO 5151 - PNS ISO 16358
Observers	AHH MMLM	Test Location	DSTI
Objective	Performance Test	Compressor Model	-----
Inner/Outer fan model	-----	Power supply	230V
Ref type	R32	Nozzle	70+100
Condition	Half Load		

Test conditions

Items	Unit	Value	Items	Unit	Value
Indoor D.B. Temp.	℃	27.00	Indoor W.B. Temp.	℃	19.00
Outdoor D.B. Temp.	℃	35.00	Outdoor W.B. Temp.	℃	24.00

Experimental data

Items	Unit	No1	No2	No3	No4	No5	No6	No7	Average
Air Flow	m3/h	1152.02	1151.03	1152.08	1150.37	1152.08	1153.90	1150.16	1151.66
Standard airflow	m3/h	1145.39	1144.32	1145.33	1143.66	1145.33	1147.22	1143.54	1145.92
Latent Capacity	W	2963.26	2948.96	2947.73	2939.35	2947.52	2960.31	2934.80	2948.85
Sensible Capacity	W	8185.76	8110.88	8260.30	8161.99	8210.43	8217.47	8165.56	8187.48
Power	W	531.50	535.70	529.70	530.60	527.90	530.10	531.10	530.94
EER/COP(kJ/h.W)	kJ/h.W	20.92	20.80	21.16	20.92	21.28	20.98	20.90	20.99
EER/COP	W/W	5.81	5.78	5.88	5.81	5.91	5.83	5.81	5.83
Entering Air Enthalpy	kJ/kg	53.59	53.60	53.70	53.63	53.63	53.66	53.63	53.63
Leaving Air Enthalpy	kJ/kg	45.47	45.53	45.53	45.53	45.50	45.53	45.53	45.51
Enthalpy Dif.	kJ/kg	8.13	8.07	8.17	8.10	8.13	8.14	8.11	8.12
UUT Capacity	W	3096.95	3072.18	3113.34	3083.70	3099.43	3104.94	3083.43	3093.42
UUT Capacity(kJ/h)	kJ/h	11149.01	11059.84	11208.03	11101.34	11157.95	11177.78	11100.36	11136.33

Test data

Items	Unit	No1	No2	No3	No4	No5	No6	No7	Average
O.D. Entering Air D.B.T	℃	35.01	35.00	35.01	34.99	34.98	35.03	35.01	35.00
O.D. Entering Air W.B.T	℃	24.01	23.97	23.98	24.02	24.02	23.99	24.05	24.01
O.D. RH	%	35.65	35.56	35.66	35.73	35.73	36.02	35.89	35.75
I.D. Entering Air D.B.T	℃	27.02	27.01	27.00	26.99	26.99	27.00	26.98	27.00
I.D. Entering Air W.B.T.	℃	19.01	19.00	19.03	19.01	19.00	19.03	19.01	19.01
I.D. Leaving Air D.B.T	℃	19.55	19.56	19.56	19.56	19.56	19.56	19.56	19.56
I.D. Leaving Air W.B.T.	℃	16.24	16.26	16.26	16.26	16.25	16.26	16.26	16.26
S.P.	Pa	-0.05	0.10	1.00	-0.05	-0.50	-0.35	0.25	0.06
NZL D.P.	Pa	456.19	455.38	455.93	457.78	456.19	457.65	454.73	456.27
D.P.T.	℃	20.50	20.52	20.52	20.52	20.52	20.51	20.49	20.51
Ref low-pressure	MPa	0.37	0	0.37	0.37	0	0.37	0.73	0.31
Ref high-pressure	MPa	10.80	11.17	10.80	10.80	11.54	10.80	11.17	11.01
Atmospheric Press.	KPa	100.55	100.55	100.55	100.55	100.56	100.55	100.55	100.55
UUT Voltage	V	230.10	230.10	230.10	230.10	230.10	230.10	230.10	230.10
UUT Current	A	3.81	3.86	3.82	3.82	3.81	3.81	3.79	3.82
Input Power	W	531.50	535.70	529.70	530.60	527.90	530.10	531.10	530.94
UUT Power factor	%	32.10	32.10	32.30	32.10	32.10	32.10	32.10	32.13
UUT Frequency	Hz	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00

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