

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	10. Yutaki M 2.0HP R32	Reg. No.	041-K002-38
Certificate Holder			
Name	Johnson Controls-Hitachi AirConditioning Spain		
Address	Ronda Shimizu, 1. Pol. Ind. Can Torrella	Zip	08233
City	Vacarisses, Barcelona	Country	Spain
Certification Body	BRE Energy & Communications Division		
Name of testing laboratory	CEIS		
Subtype title	10. Yutaki M 2.0HP R32		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass Of Refrigerant	1.2 kg		
Certification Date	02.08.2019		

Model: 01. RASM-2VRE - Heating Only

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	181 %	133 %
Prated	4.00 kW	4.00 kW
SCOP	4.60	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.54 kW	3.50 kW
COP Tj = -7°C	3.20	2.13
Cdh	1.00	1.00
Pdh Tj = +2°C	2.35 kW	2.10 kW
COP Tj = +2°C	4.80	3.35

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Cdh	1.00	1.00
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	6.20	5.15
Cdh	0.90	0.90
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	8.30	6.80
Cdh	0.90	0.90
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.13
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.90 kW
Annual energy consumption Qhe	1798 kWh	2401 kWh

Heating

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EN 14511-2

	Low temperature	Medium temperature
Heat output	4.30 kW	4.30 kW
El input	0.82 kW	1.43 kW
COP	5.25	3.00
Indoor water flow rate	0.77 m ³ /h	0.46 m ³ /h

EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Model: 02. RASM-2VRE - with cooling kit

General Data

Power supply	1x230V 50Hz
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Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	186 %	136 %
Prated	4.00 kW	4.00 kW
SCOP	4.73	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.54 kW	3.50 kW
COP Tj = -7°C	3.20	2.13
Cdh	1.00	1.00
Pdh Tj = +2°C	2.35 kW	2.10 kW
COP Tj = +2°C	4.80	3.35

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Cdh	1.00	1.00
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	6.20	5.15
Cdh	0.90	0.90
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	8.30	6.80
Cdh	0.90	0.90
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.13
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.90 kW
Annual energy consumption Qhe	1754 kWh	2357 kWh

Heating

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EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.30 kW	4.30 kW
El input	0.82 kW	1.43 kW
COP	5.25	3.00
Indoor water flow rate	0.77 m ³ /h	0.46 m ³ /h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Cooling

EN 14511-2		
	+7°C/+12°C	+18°C/+23°C
El input	1 kW	1.02 kW
Cooling capacity	4	5.5
EER	4	5.4

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EN 14825		
	+7°C/+12°C	+18°C/+23°C
P _{designc}	4 kW	5.5 kW
SEER	5.57	8.04
P _{dc} T _j = 35°C	4 kW	5.5 kW
EER T _j = 35°C	4	5.4
P _{dc} T _j = 30°C	2.95 kW	4.05 kW
EER T _j = 30°C	5	7.2
C _{dc}	1	1
P _{dc} T _j = 25°C	2.05 kW	2.61 kW
EER T _j = 25°C	6.45	9.6
C _{dc}	0.9	0.9
P _{dc} T _j = 20°C	2.88 kW	2.51 kW
EER T _j = 20°C	8	10.3
C _{dc}	0.9	0.9
P _{off}	12 W	12 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Q _{ce}	431 kWh	410 kWh