

Certificate

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06. Yutaki S & S Combi 6.0HP (mono)

Certificate Holder Johnson Controls-Hitachi AirConditioning Spain
Ronda Shimizu, 1. Pol. Ind. Can Torrella
08233 Vacarisses, Barcelona
Spain
Reg. No. 041-K002-06
Certification body BRE Energy & Communications Division
Name of testing CEIS
laboratory
Subtype title 06. Yutaki S & S Combi 6.0HP (mono)
Heat Pump Type Outdoor Air/Water
Refrigerant HFC-410a
Mass of refrigerant 3,400kg
Certification Date n/a

RAS-6WHVNPE RWD-6.0NWSE-260S - Solar - with cooling kit

General Data

Power supply 1x230V 50Hz
Off-peak product Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
El input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1

Sound power level indoor	39dB(A)	39dB(A)
Sound power level outdoor	67dB(A)	67dB(A)

EN 14825

Low temperature

Medium temperature

η_s	153%	126%
P_{rated}	16.00kW	14.00kW
SCOP	3.90	3.23
T_{biv}	-7°C	-7°C
TOL	-10°C	-10°C
Pdh $T_j = -7^\circ C$	13.80kW	11.20kW
COPd $T_j = -7^\circ C$	2.40	1.60
Pdh $T_j = +2^\circ C$	8.40kW	6.82kW
COPd $T_j = +2^\circ C$	3.90	3.35
Pdh $T_j = +7^\circ C$	5.40kW	4.38kW
COPd $T_j = +7^\circ C$	5.00	4.35
Pdh $T_j = +12^\circ C$	3.50kW	3.60kW
COPd $T_j = +12^\circ C$	6.00	5.50
Pdh $T_j =$ bivalent temperature	13.80kW	11.20kW
COPd $T_j =$ bivalent temperature	2.40	1.60
Pdh $T_j =$ TOL	14.10kW	10.50kW
COPd $T_j =$ TOL	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater:	1.90kW	3.10kW
P_{SUP}		
Annual energy consumption Q_{HE}	8239kWh	8732kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile XL

Efficiency η_{dhw} 134%
 COP 3.35
 Heating up time 1:25
 Standby power input 44.0W
 Reference hot water temperature 54.0°C
 Mixed water at 40°C 350l

RAS-6WHVNPE RWD-6.0NWE-260S - with cooling kit

General Data

Power supply 1x230V 50Hz
 Off-peak product Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
El input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit passed
 Operating range outdoor exchanger/indoor exchanger upper limit/upper limit passed
 Shutting off the heat transfer medium flow passed
 Complete power supply failure passed
 Defrost test passed

Average Climate

EN 12102-1

Sound power level indoor	39dB(A)	39dB(A)
Sound power level outdoor	67dB(A)	67dB(A)

EN 14825

	Low temperature	Medium temperature
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COPd $T_j = +2°C$	3.90	3.35
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COPd Tj = bivalent temperature	2.40	1.60
Pdh Tj = TOL	14.10kW	10.50kW
COPd Tj = TOL	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P _{OFF}	13W	13W
P _{TO}	0W	0W
P _{SB}	13W	13W
P _{CK}	0W	0W
Supplementary Heater:	electricity	electricity
Type of energy input		
Supplementary Heater:	1.90kW	3.10kW
P _{SUP}		
Annual energy consumption Q _{HE}	8239kWh	8732kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency η_{dhw}	134%
COP	3.35
Heating up time	1:25
Standby power input	44.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	350l

RAS-6WHVNPE RWD-6.0NWE-200S - with cooling kit

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
EI input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
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COPd $T_j = \text{TOL}$	2.30	1.40
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P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater:	1.90kW	3.10kW
P_{SUP}		
Annual energy consumption Q_{HE}	8239kWh	8732kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency η_{dhw}	130%
COP	3.25
Heating up time	1:10
Standby power input	42.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	263l

RAS-6WHVNPE RWM-6.0NE - with cooling kit

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
EI input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1

Sound power level indoor	39dB(A)	39dB(A)
Sound power level outdoor	67dB(A)	67dB(A)

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	Low temperature	Medium temperature
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SCOP	3.90	3.23
T_{biv}	-7°C	-7°C
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COPd $T_j = -7^\circ\text{C}$	2.40	1.60
Pdh $T_j = +2^\circ\text{C}$	8.40kW	6.82kW
COPd $T_j = +2^\circ\text{C}$	3.90	3.35
Pdh $T_j = +7^\circ\text{C}$	5.40kW	4.38kW
COPd $T_j = +7^\circ\text{C}$	5.00	4.35
Pdh $T_j = +12^\circ\text{C}$	3.50kW	3.60kW
COPd $T_j = +12^\circ\text{C}$	6.00	5.50
Pdh $T_j = \text{bivalent temperature}$	13.80kW	11.20kW
COPd $T_j = \text{bivalent temperature}$	2.40	1.60
Pdh $T_j = \text{TOL}$	14.10kW	10.50kW
COPd $T_j = \text{TOL}$	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: P_{SUP}	1.90kW	3.10kW
Annual energy consumption Q_{HE}	8239kWh	8732kWh

RAS-6WHVNPE RWD-6.0NWSE-260S - Solar - Heating Only

General Data

Power supply 1x230V 50Hz
Off-peak product Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
El input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit passed
Shutting off the heat transfer medium flow passed
Complete power supply failure passed
Defrost test passed

Average Climate

EN 12102-1

Sound power level indoor 39dB(A) 39dB(A)
Sound power level outdoor 67dB(A) 67dB(A)

EN 14825

	Low temperature	Medium temperature
η_{is}	153%	125%
P_{rated}	16.00kW	14.00kW
SCOP	3.90	3.20
T_{biv}	-7°C	-7°C
TOL	-10°C	-10°C
Pdh $T_j = -7^\circ C$	13.80kW	11.20kW
COPd $T_j = -7^\circ C$	2.40	1.60
Pdh $T_j = +2^\circ C$	8.40kW	6.82kW
COPd $T_j = +2^\circ C$	3.90	3.35
Pdh $T_j = +7^\circ C$	5.40kW	4.38kW
COPd $T_j = +7^\circ C$	5.00	4.35
Pdh $T_j = +12^\circ C$	3.50kW	3.60kW
COPd $T_j = +12^\circ C$	6.00	5.50
Pdh $T_j =$ bivalent temperature	13.80kW	11.20kW
COPd $T_j =$ bivalent temperature	2.40	1.60
Pdh $T_j =$ TOL	14.10kW	10.50kW
COPd $T_j =$ TOL	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W

P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater:	electricity	electricity
Type of energy input		
Supplementary Heater:	1.90kW	3.10kW
P_{SUP}		
Annual energy consumption Q_{HE}	8287kWh	8780kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency η_{dhw}	134%
COP	3.35
Heating up time	1:25
Standby power input	44.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	350l

RAS-6WHVNPE RWD-6.0NWE-260S-K - UK- Heating Only

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
EI input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1

Sound power level indoor	39dB(A)	39dB(A)
Sound power level outdoor	67dB(A)	67dB(A)

EN 14825

Low temperature

Medium temperature

η_s	153%	125%
P_{rated}	16.00kW	14.00kW
SCOP	3.90	3.20
T_{biv}	-7°C	-7°C
TOL	-10°C	-10°C
Pdh $T_j = -7^\circ\text{C}$	13.80kW	11.20kW
COPd $T_j = -7^\circ\text{C}$	2.40	1.60
Pdh $T_j = +2^\circ\text{C}$	8.40kW	6.82kW
COPd $T_j = +2^\circ\text{C}$	3.90	3.35
Pdh $T_j = +7^\circ\text{C}$	5.40kW	4.38kW
COPd $T_j = +7^\circ\text{C}$	5.00	4.35
Pdh $T_j = +12^\circ\text{C}$	3.50kW	3.60kW
COPd $T_j = +12^\circ\text{C}$	6.00	5.50
Pdh $T_j = \text{bivalent}$	13.80kW	11.20kW
temperature		
COPd $T_j = \text{bivalent}$	2.40	1.60
temperature		
Pdh $T_j = \text{TOL}$	14.10kW	10.50kW
COPd $T_j = \text{TOL}$	2.30	1.40
C_{dh}	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater:	electricity	electricity
Type of energy input		
Supplementary Heater:	1.90kW	3.10kW
P_{SUP}		
Annual energy consumption Q_{HE}	8287kWh	8780kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency η_{dhw}	134%
COP	3.35
Heating up time	1:25
Standby power input	44.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	350l

RAS-6WHVNPE RWD-6.0NWE-200S-K - UK- Heating Only

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

Low temperature

Medium temperature

Heat output	16.00kW	16.00kW
El input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1

Sound power level indoor	39dB(A)	39dB(A)
Sound power level outdoor	67dB(A)	67dB(A)

EN 14825

Low temperature

Medium temperature

η_s	153%	125%
P_{rated}	16.00kW	14.00kW
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Pdh $T_j = +2°C$	8.40kW	6.82kW
COPd $T_j = +2°C$	3.90	3.35
Pdh $T_j = +7°C$	5.40kW	4.38kW
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COPd $T_j = +12°C$	6.00	5.50
Pdh $T_j =$ bivalent temperature	13.80kW	11.20kW
COPd $T_j =$ bivalent temperature	2.40	1.60
Pdh $T_j =$ TOL	14.10kW	10.50kW
COPd $T_j =$ TOL	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: P_{SUP}	1.90kW	3.10kW
Annual energy consumption Q_{HE}	8287kWh	8780kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency η_{dhw}	130%
COP	3.25
Heating up time	1:10
Standby power input	42.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	263l

RAS-6WHVNPE RWD-6.0NWE-260S - Heating Only

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
EI input	3.50kW	6.40kW
COP	4.57	2.50
Indoor water flow rate	2.74m ³ /h	1.71m ³ /h

EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
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Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

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$COP_d T_j = +2°C$	3.90	3.35
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$COP_d T_j = +7°C$	5.00	4.35
$P_{dh} T_j = +12°C$	3.50kW	3.60kW

COPd Tj = +12°C	6.00	5.50
Pdh Tj = bivalent temperature	13.80kW	11.20kW
COPd Tj = bivalent temperature	2.40	1.60
Pdh Tj = TOL	14.10kW	10.50kW
COPd Tj = TOL	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P _{OFF}	13W	13W
P _{TO}	0W	0W
P _{SB}	13W	13W
P _{CK}	0W	0W
Supplementary Heater:	electricity	electricity
Type of energy input		
Supplementary Heater:	1.90kW	3.10kW
P _{SUP}		
Annual energy consumption Q _{HE}	8287kWh	8780kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

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COP	3.35
Heating up time	1:25
Standby power input	44.0W
Reference hot water temperature	54.0°C
Mixed water at 40°C	350l

RAS-6WHVNPE RWD-6.0NWE-200S - Heating Only

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
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Defrost test passed

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Medium temperature

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Pdh $T_j = \text{bivalent temperature}$	13.80kW	11.20kW
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Pdh $T_j = \text{TOL}$	14.10kW	10.50kW
COPd $T_j = \text{TOL}$	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: P_{SUP}	1.90kW	3.10kW
Annual energy consumption Q_{HE}	8287kWh	8780kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
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RAS-6WHVNPE RWM-6.0NE - Heating Only

General Data

Power supply 1x230V 50Hz

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00kW	16.00kW
EI input	3.50kW	6.40kW
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P_{rated}	16.00kW	14.00kW
SCOP	3.90	3.20
T_{biv}	-7°C	-7°C
TOL	-10°C	-10°C
Pdh $T_j = -7^\circ\text{C}$	13.80kW	11.20kW
COPd $T_j = -7^\circ\text{C}$	2.40	1.60
Pdh $T_j = +2^\circ\text{C}$	8.40kW	6.82kW
COPd $T_j = +2^\circ\text{C}$	3.90	3.35
Pdh $T_j = +7^\circ\text{C}$	5.40kW	4.38kW
COPd $T_j = +7^\circ\text{C}$	5.00	4.35
Pdh $T_j = +12^\circ\text{C}$	3.50kW	3.60kW
COPd $T_j = +12^\circ\text{C}$	6.00	5.50
Pdh $T_j = \text{bivalent temperature}$	13.80kW	11.20kW
COPd $T_j = \text{bivalent temperature}$	2.40	1.60
Pdh $T_j = \text{TOL}$	14.10kW	10.50kW
COPd $T_j = \text{TOL}$	2.30	1.40
Cdh	0.90	0.90
WTOL	55°C	55°C
P_{OFF}	13W	13W
P_{TO}	0W	0W
P_{SB}	13W	13W
P_{CK}	0W	0W
Supplementary Heater: Type of energy input	electricity	electricity

Supplementary Heater: 1.90kW
 P_{SUP}
Annual energy
consumption Q_{HE} 8287kWh

3.10kW

8780kWh