Summary of	05. Yutaki S & S Combi 5.0HP (mono)	Reg. No.	041-K002-05
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	05. Yutaki S & S Combi 5.0HP (mono)		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.4 kg		

Model: RAS-5WHVNPE RWM-5.0NE - Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Model: RAS-5WHVNPE RWD-5.0NWE-200S - Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
COP	3.25
Standby power input	42.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l
Heating up time	1:10 h:min

Model: RAS-5WHVNPE RWD-5.0NWE-260S - Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Standby power input	44.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Heating up time	1:25 h:min

Model: RAS-5WHVNPE RWD-5.0NWE-200S-K - UK- Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

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

Model: RAS-5WHVNPE RWD-5.0NWE-260S-K - UK- Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Standby power input	44.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Heating up time	1:25 h:min

Model: RAS-5WHVNPE RWD-5.0NWSE-260S - Solar - Heating Only

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	133 %
Prated	14.00 kW	12.00 kW
SCOP	4.45	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6313 kWh	7066 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Standby power input	44.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Heating up time	1:25 h:min

Model: RAS-5WHVNPE RWM-5.0NE - with cooling kit

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	176 %	134 %
Prated	14.00 kW	12.00 kW
SCOP	4.48	3.43
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6265 kWh	7018 kWh

Model: RAS-5WHVNPE RWD-5.0NWE-200S - with cooling kit

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	176 %	134 %
Prated	14.00 kW	12.00 kW
SCOP	4.48	3.43
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6265 kWh	7018 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
COP	3.25
Standby power input	42.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l
Heating up time	1:10 h:min

Model: RAS-5WHVNPE RWD-5.0NWE-260S - with cooling kit

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	176 %	134 %
Prated	14.00 kW	12.00 kW
SCOP	4.48	3.43
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6265 kWh	7018 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

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

Model: RAS-5WHVNPE RWD-5.0NWSE-260S - Solar - with cooling kit

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.00 kW	14.00 kW
El input	2.97 kW	5.00 kW
COP	4.71	2.80
Indoor water flow rate	2.40 m³/h	1.50 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	176 %	134 %
Prated	14.00 kW	12.00 kW
SCOP	4.48	3.43
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.00 kW	10.25 kW
COP Tj = -7°C	2.55	1.70
Pdh Tj = +2°C	7.30 kW	6.24 kW
COP Tj = +2°C	4.70	3.60
Pdh Tj = +7°C	4.70 kW	4.01 kW
COP Tj = +7°C	5.70	4.60
Pdh Tj = 12°C	3.50 kW	3.50 kW
COP Tj = 12°C	6.00	5.50
Pdh Tj = Tbiv	12.00 kW	10.25 kW

COP Tj = Tbiv	2.55	1.70
Pdh Tj = TOL	12.10 kW	9.00 kW
COP Tj = TOL	2.50	1.60
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.90 kW	2.60 kW
Annual energy consumption Qhe	6265 kWh	7018 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Standby power input	44.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Heating up time	1:25 h:min