Summary of	01. Yutaki S & S Combi 2.0HP	Reg. No.	041-K002-01
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	01. Yutaki S & S Combi 2.0HP		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	1.4 kg		

Model: RAS-2WHVNP RWM-2.0NE - 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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	132 %
COP	3.30
Heating up time	1:43 h:min
Standby power input	37.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	136 %
COP	3.40
Heating up time	2:10 h:min
Standby power input	41.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	132 %
COP	3.30
Heating up time	1:43 h:min
Standby power input	37.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	136 %
COP	3.40
Heating up time	2:10 h:min
Standby power input	41.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l

Model: RAS-2WHVNP RWD-2.0NWSE-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	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 m³/h	0.46 m³/h

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	189 %	137 %
Prated	4.00 kW	4.00 kW
SCOP	4.80	3.50
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1719 kWh	2358 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	136 %
COP	3.40
Heating up time	2:10 h:min
Standby power input	41.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l

Model: RAS-2WHVNP RWM-2.0NE - 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	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 m³/h	0.46 m³/h

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	194 %	140 %
Prated	4.00 kW	4.00 kW
SCOP	4.93	3.58
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1675 kWh	2314 kWh

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	194 %	140 %
Prated	4.00 kW	4.00 kW
SCOP	4.93	3.58
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1675 kWh	2314 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	132 %
COP	3.30
Heating up time	1:43 h:min
Standby power input	37.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l

Model: RAS-2WHVNP RWD-2.0NWE-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	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 m³/h	0.46 m³/h

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	194 %	140 %
Prated	4.00 kW	4.00 kW
SCOP	4.93	3.58
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1675 kWh	2314 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	136 %
COP	3.40
Heating up time	2:10 h:min
Standby power input	41.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l

Model: RAS-2WHVNP RWD-2.0NWSE-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	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 m³/h	0.46 m³/h

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	194 %	140 %
Prated	4.00 kW	4.00 kW
SCOP	4.93	3.58
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	2.30
Pdh Tj = +2°C	2.15 kW	2.10 kW
COP Tj = +2°C	5.20	3.73
Pdh Tj = +7°C	1.70 kW	1.60 kW
COP Tj = +7°C	6.05	4.40
Pdh Tj = 12°C	1.75 kW	1.60 kW
COP Tj = 12°C	6.25	5.00
Pdh Tj = Tbiv	3.54 kW	3.50 kW

COP Tj = Tbiv	3.20	2.30
Pdh Tj = TOL	4.00 kW	3.10 kW
COP Tj = TOL	2.75	1.90
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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	1675 kWh	2314 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	136 %
COP	3.40
Heating up time	2:10 h:min
Standby power input	41.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l