Summary of	07. Yutaki S & S Combi 4.0HP (tri)	Reg. No.	041-K002-07
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	07. Yutaki S & S Combi 4.0HP (tri)		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R1234yf		
Mass Of Refrigerant	3.4 kg		
Testing basis	HP Keymark Scheme Rules Rev 07		

Model: RAS-4WHNPE RWM-4.0NE - Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Model: RAS-4WHNPE RWD-4.0NWE-200S - Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
COP	3.25
Heating up time	1:23 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l
Standby power input	49.0 W

Model: RAS-4WHNPE RWD-4.0NWE-260S - Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Heating up time	1:44 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Standby power input	51.0 W

Model: RAS-4WHNPE RWD-4.0NWE-200S-K - UK-Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	130 %
COP	3.25
Heating up time	1:23 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l
Standby power input	49.0 W

Model: RAS-4WHNPE RWD-4.0NWE-260S-K - UK-Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Heating up time	1:44 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Standby power input	51.0 W

Model: RAS-4WHNPE RWD-4.0NWSE-260S - Solar - Heating Only (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	186 %	135 %
Prated	11.00 kW	10.00 kW
SCOP	4.72	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4736 kWh	5837 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Heating up time	1:44 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Standby power input	51.0 W

Model: RAS-4WHNPE RWM-4.0NE - with cooling kit (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	189 %	137 %
Prated	11.00 kW	10.00 kW
SCOP	4.80	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4666 kWh	5767 kWh

Model: RAS-4WHNPE RWD-4.0NWE-200S - with cooling kit (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	189 %	137 %
Prated	11.00 kW	10.00 kW
SCOP	4.80	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4666 kWh	5767 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	130 %
COP	3.25
Heating up time	1:23 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	263 l
Standby power input	49.0 W

Model: RAS-4WHNPE RWD-4.0NWE-260S - with cooling kit (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	3.67 kW
COP	5.00	3.00
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	189 %	137 %
Prated	11.00 kW	10.00 kW
SCOP	4.80	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4666 kWh	5767 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Heating up time	1:44 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Standby power input	51.0 W

Model: RAS-4WHNPE RWD-4.0NWSE-260S - Solar - with cooling kit (tri)

General Data	
Power supply	3x400V 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	11.00 kW	11.00 kW
El input	2.20 kW	4.01 kW
COP	5.00	2.74
Indoor water flow rate	1.89 m³/h	1.18 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	64 dB(A)	64 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	189 %	137 %
Prated	11.00 kW	10.00 kW
SCOP	4.80	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.60 kW	8.60 kW
COP Tj = -7°C	2.74	1.80
Pdh Tj = +2°C	5.84 kW	5.23 kW
COP Tj = +2°C	5.20	3.60
Pdh Tj = +7°C	3.76 kW	3.52 kW
COP Tj = +7°C	5.80	4.80
Pdh Tj = 12°C	3.70 kW	3.60 kW
COP Tj = 12°C	6.40	5.80
Pdh Tj = Tbiv	9.60 kW	8.60 kW

COP Tj = Tbiv	2.74	1.80
Pdh Tj = TOL	10.50 kW	7.40 kW
COP Tj = TOL	2.65	1.70
Cdh	0.90	0.90
WTOL	55 °C	55 °C
Poff	19 W	19 W
PTO	0 W	0 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	2.30 kW
Annual energy consumption Qhe	4666 kWh	5767 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	134 %
COP	3.35
Heating up time	1:44 h:min
Reference hot water temperature	54.0 °C
Mixed water at 40°C	350 l
Standby power input	51.0 W