

Subtype 27. Yutaki S (R1) & S Combi (RW1) 220L 2HP R32

Certificate Holder	Johnson Controls-Hitachi AirConditioning Spain
Address	Ronda Shimizu, 1. Pol. Ind. Can Torrella
ZIP	08233
City	Vacarisses, Barcelona
Country	ES
Certification Body	BRE Global Limited
Subtype title	27. Yutaki S (R1) & S Combi (RW1) 220L 2HP R32
Registration number	041-K002-48
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.2 kg
Certification Date	08.02.2022
Testing basis	Heat Pump Keymark Scheme Rules Rev 09
Testing laboratory	Centro de Ensayos, Innovación y Servicios (CEIS), ES

**Model 03. RAS-2WHVRP1 RWD-2.0RW1E-220S - Heating Only**

Model name	03. RAS-2WHVRP1 RWD-2.0RW1E-220S - Heating Only
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	130 %
COP	3.20
Heating up time	1:55 h:min
Standby power input	30.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	288 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	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

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	180 %	130 %
Prated	4.00 kW	4.00 kW

SCOP	4.57	3.32
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	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.35 kW	2.16 kW
COP Tj = +2°C	4.43	3.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	7.41	5.20
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	9.24	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1811 kWh	2463 kWh

**Model 04. RAS-2WHVRP1 RWD-2.0RW1E-220S - with cooling kit**

Model name	04. RAS-2WHVRP1 RWD-2.0RW1E-220S - with cooling kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency ηDHW	130 %
COP	3.20
Heating up time	1:55 h:min
Standby power input	30.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	288 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	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

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.00 kW	1.02 kW
Cooling capacity	4.00	5.50
EER	4.00	5.40

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
--	-----------------	--------------------

Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184 %	132 %
P <sub>rated</sub>	4.00 kW	4.00 kW
SCOP	4.68	3.38
T <sub>biv</sub>	-7 °C	-7 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	3.54 kW	3.50 kW
COP T <sub>j</sub> = -7°C	3.20	2.00
C <sub>dh T<sub>j</sub></sub> = -7 °C	1.000	1.000
P <sub>dh T<sub>j</sub></sub> = +2°C	2.35 kW	2.16 kW
COP T <sub>j</sub> = +2°C	4.43	3.25
C <sub>dh T<sub>j</sub></sub> = +2 °C	1.000	1.000
P <sub>dh T<sub>j</sub></sub> = +7°C	3.00 kW	2.43 kW
COP T <sub>j</sub> = +7°C	7.41	5.20
C <sub>dh T<sub>j</sub></sub> = +7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = 12°C	3.05 kW	2.80 kW
COP T <sub>j</sub> = 12°C	9.24	6.90
C <sub>dh T<sub>j</sub></sub> = +12 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = T <sub>biv</sub>	3.54 kW	3.50 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.20	2.00
P <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	4.00 kW	3.10 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.75	1.90
C <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	1.000	1.000
WTOL	55 °C	55 °C
P <sub>off</sub>	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 Q <sub>he</sub>	1767 kWh	2420 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	5.50 kW
SEER	5.57	8.04
P <sub>dc T<sub>j</sub></sub> = 35°C	4.00 kW	5.50 kW
EER T <sub>j</sub> = 35°C	4.00	5.40
P <sub>dc T<sub>j</sub></sub> = 30°C	2.95 kW	4.05 kW

EER Tj = 30°C	5.00	7.20
Cdc Tj = 30 °C		
Pdc Tj = 25°C	2.05 kW	2.61 kW
EER Tj = 25°C	6.45	9.60
Cdc Tj = 25 °C		
Pdc Tj = 20°C	2.88 kW	2.51 kW
EER Tj = 20°C	8.00	10.30
Cdc Tj = 20 °C		
Poff	12 W	12 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	431 kWh	410 kWh

**Model 05. RAS-2WHVRP1 RWD-2.0RW1E-220S-K - UK Version - Heating Only**

Model name	05. RAS-2WHVRP1 RWD-2.0RW1E-220S-K - UK Version - Heating Only
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	130 %
COP	3.20
Heating up time	1:55 h:min
Standby power input	30.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	288 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.30 kW	4.30 kW
EI input	0.82 kW	1.43 kW
COP	5.25	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	180 %	130 %
Prated	4.00 kW	4.00 kW

SCOP	4.57	3.32
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	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.35 kW	2.16 kW
COP Tj = +2°C	4.43	3.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	7.41	5.20
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	9.24	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1811 kWh	2463 kWh

**Model 06. RAS-2WHVRP1 RWD-2.0RW1E-220S-K - UK Version - with cooling kit**

Model name	06. RAS-2WHVRP1 RWD-2.0RW1E-220S-K - UK Version - with cooling kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency ηDHW	130 %
COP	3.20
Heating up time	1:55 h:min
Standby power input	30.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	288 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	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

**EN 14511-2 | Cooling**

	Low temperature	Medium temperature
El input	1.00 kW	1.02 kW
Cooling capacity	4.00	5.50
EER	4.00	5.40

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature

Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184 %	132 %
P <sub>rated</sub>	4.00 kW	4.00 kW
SCOP	4.68	3.38
T <sub>biv</sub>	-7 °C	-7 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	3.54 kW	3.50 kW
COP T <sub>j</sub> = -7°C	3.20	2.00
C <sub>dh T<sub>j</sub></sub> = -7 °C	1.000	1.000
P <sub>dh T<sub>j</sub></sub> = +2°C	2.35 kW	2.16 kW
COP T <sub>j</sub> = +2°C	4.43	3.25
C <sub>dh T<sub>j</sub></sub> = +2 °C	1.000	1.000
P <sub>dh T<sub>j</sub></sub> = +7°C	3.00 kW	2.43 kW
COP T <sub>j</sub> = +7°C	7.41	5.20
C <sub>dh T<sub>j</sub></sub> = +7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = 12°C	3.05 kW	2.80 kW
COP T <sub>j</sub> = 12°C	9.24	6.90
C <sub>dh T<sub>j</sub></sub> = +12 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = T <sub>biv</sub>	3.54 kW	3.50 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.20	2.00
P <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	4.00 kW	3.10 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.75	1.90
C <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	1.000	1.000
WTOL	55 °C	55 °C
P <sub>off</sub>	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 Q <sub>he</sub>	1767 kWh	2420 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	5.50 kW
SEER	5.57	8.04
P <sub>dc T<sub>j</sub></sub> = 35°C	4.00 kW	5.50 kW
EER T <sub>j</sub> = 35°C	4.00	5.40
P <sub>dc T<sub>j</sub></sub> = 30°C	2.95 kW	4.05 kW

EER Tj = 30°C	5.00	7.20
Cdc Tj = 30 °C		
Pdc Tj = 25°C	2.05 kW	2.61 kW
EER Tj = 25°C	6.45	9.60
Cdc Tj = 25 °C		
Pdc Tj = 20°C	2.88 kW	2.51 kW
EER Tj = 20°C	8.00	10.30
Cdc Tj = 20 °C		
Poff	12 W	12 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	431 kWh	410 kWh

**Model 01. RAS-2WHVRP1 RWM-2.0R1E - Heating Only**

Model name	01. RAS-2WHVRP1 RWM-2.0R1E - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.30 kW	4.30 kW
EI input	0.82 kW	1.43 kW
COP	5.25	3.00

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	180 %	130 %
Prated	4.00 kW	4.00 kW
SCOP	4.57	3.32
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	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.35 kW	2.16 kW
COP Tj = +2°C	4.43	3.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.43 kW

COP Tj = +7°C	7.41	5.20
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	9.24	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1811 kWh	2463 kWh

**Model 02. RAS-2WHVRP1 RWM-2.0R1E - with cooling kit**

Model name	02. RAS-2WHVRP1 RWM-2.0R1E - with cooling kit
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	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

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.00 kW	1.02 kW
Cooling capacity	4.00	5.50
EER	4.00	5.40

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	184 %	132 %
Prated	4.00 kW	4.00 kW
SCOP	4.68	3.38
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	2.00
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	2.35 kW	2.16 kW
COP Tj = +2°C	4.43	3.25
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	7.41	5.20
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	9.24	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.50 kW
COP Tj = Tbiv	3.20	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	1767 kWh	2420 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	5.50 kW
SEER	5.57	8.04
Pdc Tj = 35°C	4.00 kW	5.50 kW
EER Tj = 35°C	4.00	5.40
Pdc Tj = 30°C	2.95 kW	4.05 kW
EER Tj = 30°C	5.00	7.20
Cdc Tj = 30 °C		
Pdc Tj = 25°C	2.05 kW	2.61 kW
EER Tj = 25°C	6.45	9.60
Cdc Tj = 25 °C		
Pdc Tj = 20°C	2.88 kW	2.51 kW
EER Tj = 20°C	8.00	10.30
Cdc Tj = 20 °C		
Poff	12 W	12 W

PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Annual energy consumption Qce	431 kWh	410 kWh