

Subtype 28. Yutaki S (R1) & S Combi (RW1) 220L 2.5HP 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	28. Yutaki S (R1) & S Combi (RW1) 220L 2.5HP R32
Registration number	041-K002-49
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.3 kg
Certification Date	08.02.2022
Testing basis	Heat Pump Keymark Scheme Rules Rev 09

Model 04. RAS-2.5WHVRP1 RWD-2.5RW1E-220S - with cooling kit

Model name	04. RAS-2.5WHVRP1 RWD-2.5RW1E-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 η_{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

Model 03. RAS-2.5WHVRP1 RWD-2.5RW1E-220S - Heating Only

Model name	03. RAS-2.5WHVRP1 RWD-2.5RW1E-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 η_{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

Model 05. RAS-2.5WHVRP1 RWD-2.5RW1E-220S-K - UK Version - Heating Only

Model name	05. RAS-2.5WHVRP1 RWD-2.5RW1E-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 η_{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

Model 06. RAS-2.5WHVRP1 RWD-2.5RW1E-220S-K - UK Version - with cooling kit

Model name	06. RAS-2.5WHVRP1 RWD-2.5RW1E-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 η_{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

Model 01. RAS-2.5WHVRP1 RWM-2.5R1E - Heating Only

Model name	01. RAS-2.5WHVRP1 RWM-2.5R1E - 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	127 %
Prated	6.00 kW	5.00 kW
SCOP	4.57	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.10 kW	4.42 kW
COP Tj = -7°C	2.70	1.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.10 kW	2.69 kW
COP Tj = +2°C	4.60	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	6.20	4.95
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	8.35	6.78
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.10 kW	4.42 kW
COP Tj = Tbiv	2.70	1.65

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.30 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.70
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	0.70 kW	1.10 kW
Annual energy consumption Qhe	2652 kWh	3186 kWh

Model 02. RAS-2.5WHVRP1 RWM-2.5R1E - with cooling kit

Model name	02. RAS-2.5WHVRP1 RWM-2.5R1E - 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	180 %	128 %
Prated	6.00 kW	5.00 kW
SCOP	4.57	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.10 kW	4.42 kW
COP Tj = -7°C	2.70	1.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.10 kW	2.69 kW
COP Tj = +2°C	4.60	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.43 kW
COP Tj = +7°C	6.20	4.95
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.05 kW	2.80 kW
COP Tj = 12°C	8.35	6.78
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.10 kW	4.42 kW

COP $T_j = T_{biv}$	2.70	1.65
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.30 kW	3.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.50	1.70
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.900	0.900
WTOL	55 °C	55 °C
P _{off}	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	0.70 kW	1.10 kW
Annual energy consumption Q _{he}	2608 kWh	3143 kWh