

Subtype 36. Yutaki S (N1) 8.0HP R410A (3ph)

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| 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 | 36. Yutaki S (N1) 8.0HP R410A (3ph) |
| Registration number | 041-K002-57 |
| Heat Pump Type | Outdoor Air/Water |
| Refrigerant | R410A |
| Mass of Refrigerant | 5 kg |
| Certification Date | 08.02.2022 |
| Testing basis | Heat Pump Keymark Scheme Rules Rev 09 |

Model 01. RAS-8WHNPE RWM-8.0N1E - Heating Only

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| Model name | 01. RAS-8WHNPE RWM-8.0N1E - 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

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|------------------|-------------|
| Power supply | 3x400V 50Hz |
| Off-peak product | n/a |

Outdoor Air/Water

EN 14511-4 | Heating

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| 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 | 47 dB(A) | 47 dB(A) |
| Sound power level outdoor | 59 dB(A) | 59 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| η_s | 150 % | 120 % |
| Prated | 18.00 kW | 16.00 kW |
| SCOP | 3.83 | 3.08 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 15.60 kW | 13.80 kW |
| COP Tj = -7°C | 2.50 | 1.65 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 9.50 kW | 8.40 kW |
| COP Tj = +2°C | 3.85 | 3.10 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.10 kW | 6.00 kW |
| COP Tj = +7°C | 5.40 | 4.76 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 7.00 kW | 6.80 kW |
| COP Tj = 12°C | 4.65 | 5.10 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 15.60 kW | 13.80 kW |
| COP Tj = Tbiv | 2.50 | 1.65 |

| | | |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 16.00 kW | 12.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.40 | 1.50 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 55 °C | 55 °C |
| Poff | 36 W | 36 W |
| PTO | 0 W | 0 W |
| PSB | 36 W | 36 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 2.00 kW | 3.90 kW |
| Annual energy consumption Qhe | 9513 kWh | 10452 kWh |

Model 02. RAS-8WHNPE RWM-8.0N1E - with cooling kit

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|-------------------------------------|--|
| Model name | 02. RAS-8WHNPE RWM-8.0N1E - 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 | 3x400V 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 | 47 dB(A) | 47 dB(A) |
| Sound power level outdoor | 59 dB(A) | 59 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| η_s | 152 % | 122 % |
| Prated | 18.00 kW | 16.00 kW |
| SCOP | 3.83 | 3.08 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 15.60 kW | 13.80 kW |
| COP Tj = -7°C | 2.50 | 1.65 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 9.50 kW | 8.40 kW |
| COP Tj = +2°C | 3.85 | 3.10 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.10 kW | 6.00 kW |
| COP Tj = +7°C | 5.40 | 4.76 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 7.00 kW | 6.80 kW |
| COP Tj = 12°C | 4.65 | 5.10 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 15.60 kW | 13.80 kW |

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|---|-------------|-------------|
| COP $T_j = T_{biv}$ | 2.50 | 1.65 |
| $P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$ | 16.00 kW | 12.10 kW |
| COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$ | 2.40 | 1.50 |
| $C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$ | 0.900 | 0.900 |
| WTOL | 55 °C | 55 °C |
| P _{off} | 36 W | 36 W |
| PTO | 0 W | 0 W |
| PSB | 36 W | 36 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 2.00 kW | 3.90 kW |
| Annual energy consumption Q _{he} | 9382 kWh | 10320 kWh |