

## Subtype 10. Yutaki S 8.0HP (tri)

|                     |                                                |
|---------------------|------------------------------------------------|
| 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       | 10. Yutaki S 8.0HP (tri)                       |
| Registration number | 041-K002-10                                    |
| Heat Pump Type      | Outdoor Air/Water                              |
| Refrigerant         | R410A                                          |
| Mass of Refrigerant | 5 kg                                           |

## Model RAS-8WHNPE RWM-8.0NE - Heating Only

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Model name                          | RAS-8WHNPE RWM-8.0NE - 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     | 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 |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 20.00 kW        | 20.00 kW           |
| El input    | 4.65 kW         | 7.35 kW            |
| COP         | 4.30            | 2.72               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 47 dB(A)        | 47 dB(A)           |
| Sound power level outdoor | 73 dB(A)        | 73 dB(A)           |

#### EN 14825 | Average Climate

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 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               |
| Pdh Tj = +2°C | 9.50 kW         | 8.40 kW            |
| COP Tj = +2°C | 3.85            | 3.20               |
| Pdh Tj = +7°C | 6.10 kW         | 6.00 kW            |
| COP Tj = +7°C | 5.40            | 4.50               |
| Pdh Tj = 12°C | 7.00 kW         | 6.80 kW            |
| COP Tj = 12°C | 4.65            | 4.50               |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| 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 | 0.90        | 0.90        |
| 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                          | 1.60 kW     | 3.50 kW     |
| Annual energy consumption Qhe                       | 9513 kWh    | 10452 kWh   |

## Model RAS-8WHNPE RWM-8.0NE - with cooling kit

|                                     |                                         |
|-------------------------------------|-----------------------------------------|
| Model name                          | RAS-8WHNPE RWM-8.0NE - with cooling kit |
| 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     | 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 |

## EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 20.00 kW        | 20.00 kW           |
| El input    | 4.65 kW         | 7.35 kW            |
| COP         | 4.30            | 2.72               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 47 dB(A)        | 47 dB(A)           |
| Sound power level outdoor | 73 dB(A)        | 73 dB(A)           |

## EN 14825 | Average Climate

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 152 %           | 122 %              |
| Prated        | 18.00 kW        | 16.00 kW           |
| SCOP          | 3.88            | 3.13               |
| 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               |
| Pdh Tj = +2°C | 9.50 kW         | 8.40 kW            |
| COP Tj = +2°C | 3.85            | 3.20               |
| Pdh Tj = +7°C | 6.10 kW         | 6.00 kW            |
| COP Tj = +7°C | 5.40            | 4.50               |
| Pdh Tj = 12°C | 7.00 kW         | 6.80 kW            |
| COP Tj = 12°C | 4.65            | 4.50               |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| 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 | 0.90        | 0.90        |
| 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                          | 1.60 kW     | 3.50 kW     |
| Annual energy consumption Qhe                       | 9382 kWh    | 10320 kWh   |