

## Subtype 25. Yutaki S Combi Lite 2.0HP

|                     |                                                |
|---------------------|------------------------------------------------|
| 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       | 25. Yutaki S Combi Lite 2.0HP                  |
| Registration number | 041-K002-25                                    |
| Heat Pump Type      | Outdoor Air/Water                              |
| Refrigerant         | R410A                                          |
| Mass of Refrigerant | 1.2 kg                                         |

## Model RAS-2WHVN RWD-2.0NWLE-200S - Heating Only

|                                     |                                           |
|-------------------------------------|-------------------------------------------|
| Model name                          | RAS-2WHVN RWD-2.0NWLE-200S - 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 | Yes         |

### Outdoor Air/Water

#### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency $\eta_{DHW}$         | 125 %      |
| COP                             | 3.30       |
| Heating up time                 | 2:13 h:min |
| Standby power input             | 30.0 W     |
| Reference hot water temperature | 53.5 °C    |
| Mixed water at 40°C             | 250 l      |

#### 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 | 4.00 kW         | 3.75 kW            |
| El input    | 0.85 kW         | 1.38 kW            |
| COP         | 4.70            | 2.70               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 51 dB(A)        | 51 dB(A)           |
| Sound power level outdoor | 63 dB(A)        | 63 dB(A)           |

#### EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 167 %           | 117 %              |
| Prated   | 4.00 kW         | 4.00 kW            |
| SCOP     | 4.25            | 3.00               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 3.55 kW     | 3.50 kW     |
| COP Tj = -7°C                                       | 2.35        | 1.90        |
| Pdh Tj = +2°C                                       | 2.15 kW     | 2.10 kW     |
| COP Tj = +2°C                                       | 4.21        | 2.95        |
| Pdh Tj = +7°C                                       | 1.70 kW     | 1.40 kW     |
| COP Tj = +7°C                                       | 6.10        | 4.10        |
| Pdh Tj = 12°C                                       | 2.15 kW     | 2.00 kW     |
| COP Tj = 12°C                                       | 9.00        | 4.81        |
| Pdh Tj = Tbiv                                       | 3.55 kW     | 3.50 kW     |
| COP Tj = Tbiv                                       | 2.35        | 1.90        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.50 kW     | 3.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.10        | 1.60        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90        | 0.90        |
| WTOL                                                | 55 °C       | 55 °C       |
| Poff                                                | 3 W         | 3 W         |
| PTO                                                 | 0 W         | 0 W         |
| PSB                                                 | 3 W         | 3 W         |
| PCK                                                 | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.50 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 1953 kWh    | 2727 kWh    |

## Model RAS-2WHVN RWD-2.0NWLE-200S - with cooling kit

|                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| Model name                          | RAS-2WHVN RWD-2.0NWLE-200S - with cooling kit |
| 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 | Yes         |

## Outdoor Air/Water

## EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency $\eta_{DHW}$         | 125 %      |
| COP                             | 3.30       |
| Heating up time                 | 2:13 h:min |
| Standby power input             | 30.0 W     |
| Reference hot water temperature | 53.5 °C    |
| Mixed water at 40°C             | 250 l      |

## 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 | 4.00 kW         | 3.75 kW            |
| El input    | 0.85 kW         | 1.38 kW            |
| COP         | 4.70            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 51 dB(A)        | 51 dB(A)           |
| Sound power level outdoor | 63 dB(A)        | 63 dB(A)           |

## EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 168 %           | 117 %              |
| Prated   | 4.00 kW         | 4.00 kW            |
| SCOP     | 4.27            | 3.01               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 3.55 kW     | 3.50 kW     |
| COP Tj = -7°C                                       | 2.35        | 1.90        |
| Pdh Tj = +2°C                                       | 2.15 kW     | 2.10 kW     |
| COP Tj = +2°C                                       | 4.21        | 2.95        |
| Pdh Tj = +7°C                                       | 1.70 kW     | 1.40 kW     |
| COP Tj = +7°C                                       | 6.10        | 4.10        |
| Pdh Tj = 12°C                                       | 2.15 kW     | 2.00 kW     |
| COP Tj = 12°C                                       | 9.00        | 4.81        |
| Pdh Tj = Tbiv                                       | 3.55 kW     | 3.50 kW     |
| COP Tj = Tbiv                                       | 2.35        | 1.90        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.50 kW     | 3.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.10        | 1.60        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90        | 0.90        |
| WTOL                                                | 55 °C       | 55 °C       |
| Poff                                                | 3 W         | 3 W         |
| PTO                                                 | 0 W         | 0 W         |
| PSB                                                 | 3 W         | 3 W         |
| PCK                                                 | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.50 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 1942 kWh    | 2716 kWh    |