

## Subtype CTC EcoAir 614M

|                     |                                            |
|---------------------|--------------------------------------------|
| Certificate Holder  | CTC AB                                     |
| Address             | Box 309, Näsvägen                          |
| ZIP                 | SE-341 26                                  |
| City                | Ljungby                                    |
| Country             | SE                                         |
| Certification Body  | RISE CERT                                  |
| Subtype title       | CTC EcoAir 614M                            |
| Registration number | 012-SC0319-18                              |
| Heat Pump Type      | Outdoor Air/Water                          |
| Refrigerant         | R407c                                      |
| Mass of Refrigerant | 2.2 kg                                     |
| Testing basis       | EN 14511:2013, EN 14825:2016, EN12102:2017 |

## Model CTC EcoAir 614M

|                                     |                       |
|-------------------------------------|-----------------------|
| Model name                          | CTC EcoAir 614M       |
| Application                         | Heating (medium temp) |
| Units                               | Outdoor               |
| Climate zone (for heating)          | Colder Climate        |
| Cooling mode application (optional) | n/a                   |
| Any additional heat sources         | n/a                   |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | No          |

## 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 | 5.94 kW         | 4.80 kW            |
| El input    | 1.16 kW         | 1.47 kW            |
| COP         | 5.10            | 3.26               |

### EN 12102-1 | Average Climate

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

### EN 14825 | Average Climate

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 193 %           | 148 %              |
| Prated        | 7.50 kW         | 7.60 kW            |
| SCOP          | 4.90            | 3.78               |
| Tbiv          | -10 °C          | -10 °C             |
| TOL           | -10 °C          | -10 °C             |
| Pdh Tj = -7°C | 6.80 kW         | 6.83 kW            |
| COP Tj = -7°C | 2.88            | 2.01               |
| Pdh Tj = +2°C | 4.05 kW         | 4.06 kW            |
| COP Tj = +2°C | 5.21            | 3.94               |
| Pdh Tj = +7°C | 2.63 kW         | 2.57 kW            |
| COP Tj = +7°C | 6.24            | 5.14               |
| Pdh Tj = 12°C | 3.03 kW         | 2.94 kW            |
| COP Tj = 12°C | 7.17            | 6.53               |
| Pdh Tj = Tbiv | 7.67 kW         | 7.65 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = Tbiv                                       | 2.25        | 1.51        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.67 kW     | 7.65 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.25        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.98        |
| WTOL                                                | 65 °C       | 65 °C       |
| Poff                                                | 14 W        | 14 W        |
| PTO                                                 | 14 W        | 14 W        |
| PSB                                                 | 14 W        | 14 W        |
| PCK                                                 | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 3163 kWh    | 4153 kWh    |

#### EN 12102-1 | Colder Climate

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

#### EN 14825 | Colder Climate

|                                                     | Low temperature | Medium temperature |
|-----------------------------------------------------|-----------------|--------------------|
| $\eta_s$                                            | 151 %           | 120 %              |
| Prated                                              | 11.00 kW        | 11.00 kW           |
| SCOP                                                | 3.85            | 3.08               |
| Tbiv                                                | -11 °C          | -11 °C             |
| TOL                                                 | -22 °C          | -22 °C             |
| Pdh Tj = -7°C                                       | 6.57 kW         | 6.68 kW            |
| COP Tj = -7°C                                       | 3.16            | 2.40               |
| Pdh Tj = +2°C                                       | 4.33 kW         | 4.18 kW            |
| COP Tj = +2°C                                       | 5.57            | 4.44               |
| Pdh Tj = +7°C                                       | 2.66 kW         | 2.54 kW            |
| COP Tj = +7°C                                       | 6.38            | 5.29               |
| Pdh Tj = 12°C                                       | 3.05 kW         | 2.98 kW            |
| COP Tj = 12°C                                       | 7.04            | 6.92               |
| Pdh Tj = Tbiv                                       | 8.06 kW         | 7.87 kW            |
| COP Tj = Tbiv                                       | 2.20            | 1.74               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.04 kW         | 2.73 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.81            | 1.32               |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98            | 0.98               |
| WTOL                                                | 65 °C           | 65 °C              |
| Poff                                                | 14 W            | 14 W               |
| PTO                                                 | 14 W            | 14 W               |

|                                            |             |             |
|--------------------------------------------|-------------|-------------|
| PSB                                        | 14 W        | 14 W        |
| PCK                                        | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 5.96 kW     | 8.27 kW     |
| Annual energy consumption Q <sub>he</sub>  | 7038 kWh    | 8797 kWh    |