

## Subtype CTC CombiAir 8M

|                     |                                            |
|---------------------|--------------------------------------------|
| Certificate Holder  | CTC AB                                     |
| Address             | Box 309, Näsvägen                          |
| ZIP                 | SE-341 26                                  |
| City                | Ljungby                                    |
| Country             | SE                                         |
| Certification Body  | RISE CERT                                  |
| Subtype title       | CTC CombiAir 8M                            |
| Registration number | 012-C700076                                |
| Heat Pump Type      | Outdoor Air/Water                          |
| Refrigerant         | R410A                                      |
| Mass of Refrigerant | 2.6 kg                                     |
| Certification Date  | 30.10.2020                                 |
| Testing basis       | EN 14511:2013, EN 14825:2013, EN12102:2013 |

| Model CTC CombiAir 8M                      |                       |                    |
|--------------------------------------------|-----------------------|--------------------|
| Model name                                 | CTC CombiAir 8M       |                    |
| Application                                | Heating (medium temp) |                    |
| Units                                      | 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                           | 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                                | 3.86 kW               | 3.50 kW            |
| El input                                   | 0.83 kW               | 1.17 kW            |
| COP                                        | 4.65                  | 2.99               |
| EN 12102-1   Average Climate               |                       |                    |
|                                            | Low temperature       | Medium temperature |
| Sound power level outdoor                  | 54 dB(A)              | 54 dB(A)           |
| EN 14825   Average Climate                 |                       |                    |
|                                            | Low temperature       | Medium temperature |
| ηs                                         | 172 %                 | 127 %              |
| Prated                                     | 8.20 kW               | 7.00 kW            |
| SCOP                                       | 4.37                  | 3.25               |
| Tbiv                                       | -8 °C                 | -9 °C              |
| TOL                                        | -10 °C                | -10 °C             |
| Pdh Tj = -7°C                              | 7.40 kW               | 6.30 kW            |
| COP Tj = -7°C                              | 2.92                  | 1.94               |
| Pdh Tj = +2°C                              | 4.50 kW               | 3.90 kW            |
| COP Tj = +2°C                              | 4.30                  | 3.11               |
| Pdh Tj = +7°C                              | 2.90 kW               | 2.60 kW            |
| COP Tj = +7°C                              | 5.41                  | 4.42               |
| Pdh Tj = 12°C                              | 3.50 kW               | 3.70 kW            |
| COP Tj = 12°C                              | 6.51                  | 5.93               |
| Pdh Tj = Tbiv                              | 7.40 kW               | 6.60 kW            |

|                                                                         |             |             |
|-------------------------------------------------------------------------|-------------|-------------|
| COP $T_j = T_{biv}$                                                     | 2.86        | 1.83        |
| $P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$ | 6.80 kW     | 5.90 kW     |
| COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$       | 2.67        | 1.86        |
| $C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$ | 0.96        | 0.97        |
| WTOL                                                                    | 58 °C       | 58 °C       |
| P <sub>off</sub>                                                        | 2 W         | 2 W         |
| PTO                                                                     | 15 W        | 10 W        |
| PSB                                                                     | 15 W        | 15 W        |
| PCK                                                                     | 20 W        | 20 W        |
| Supplementary Heater: Type of energy input                              | Electricity | Electricity |
| Supplementary Heater: PSUP                                              | 1.40 kW     | 1.10 kW     |
| Annual energy consumption Q <sub>he</sub>                               | 3882 kWh    | 4447 kWh    |