

## Subtype NIMBUS/ARIANEXT/AEROTOP/ENERGION 80 M - Plus/LB

|                     |   |
|---------------------|---|
| Certificate Holder  | Ariston Thermo Group                            |
| Address             | Viale Aristide Merloni 45                       |
| ZIP                 | I-60044   |
| City                | Fabriano (AN)                                   |
| Country             | IT  |
| Certification Body  | ICIM S.p.A.                                     |
| Subtype title       | NIMBUS/ARIANEXT/AEROTOP/ENERGION 80 M - Plus/LB |
| Registration number | ICIM-PDC-000117                                 |
| Heat Pump Type      | Outdoor Air/Water                               |
| Refrigerant         | R32   |
| Mass of Refrigerant | 1.4 kg  |
| Certification Date  | 05.07.2022                                      |
| Testing basis       | Heat Pump KEYMARK rev9                          |

## Model NIMBUS PLUS 80 M NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS PLUS 80 M NET R32                       |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |
| Pdh Tj = -15°C (if TOL                              |             |             |
| COP Tj = -15°C (if TOL                              |             |             |
| Cdh Tj = -15 °C                                     |             |             |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2°C                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = +2°C                                       | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7°C                                       | 3.10 kW         | 2.81 kW            |
| COP Tj = +7°C                                       | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12°C                                       | 3.28 kW         | 3.16 kW            |
| COP Tj = 12°C                                       | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |

|   |          |          |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22     | 1.51     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh |          |          |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 14 W     | 14 W     |
| PTO   | 14 W     | 14 W     |
| PSB   | 14 W     | 14 W     |
| PCK   | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Backup Heater                                       | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe                       | 1049 kWh | 1483 kWh |

## Model NIMBUS PLUS 80 M-T NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS PLUS 80 M-T NET R32                     |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model NIMBUS POCKET 80 M NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS POCKET 80 M NET R32                     |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model NIMBUS POCKET 80 M-T NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS POCKET 80 M-T NET R32                   |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model ARIANEXT PLUS 80 M LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT PLUS 80 M LINK R32                    |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model ARIANEXT PLUS 80 M-T LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT PLUS 80 M-T LINK R32                  |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT LITE 80 M LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT LITE 80 M LINK R32                    |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT LITE 80 M-T LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT LITE 80 M-T LINK R32                  |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RX

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RX                         |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-R

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-R                          |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RXL

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RXL                        |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RL

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RL                         |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ENERGION M PLUS 80

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M PLUS 80                             |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model ENERGION M PLUS 80T

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M PLUS 80T                            |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ENERGION M LIGHT 80

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M LIGHT 80                            |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ENERGION M LIGHT 80T

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M LIGHT 80T                           |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model NIMBUS PLUS 80 M NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS PLUS 80 M NET R32                       |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model NIMBUS PLUS 80 M-T NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS PLUS 80 M-T NET R32                     |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT PLUS 80 M LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT PLUS 80 M LINK R32                    |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT PLUS 80 M-T LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT PLUS 80 M-T LINK R32                  |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RX

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RX                         |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-R

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-R                          |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ENERGION M PLUS 80

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M PLUS 80                             |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| $\eta_s$        | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2°C                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = +2°C                                       | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7°C                                       | 3.10 kW         | 2.81 kW            |
| COP Tj = +7°C                                       | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12°C                                       | 3.28 kW         | 3.16 kW            |
| COP Tj = 12°C                                       | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ENERGION M PLUS 80T

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M PLUS 80T                            |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 35 dB(A)        | 35 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model NIMBUS POCKET 80 M NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS POCKET 80 M NET R32                     |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model NIMBUS POCKET 80 M-T NET R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | NIMBUS POCKET 80 M-T NET R32                   |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT LITE 80 M LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT LITE 80 M LINK R32                    |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model ARIANEXT LITE 80 M-T LINK R32

|                                     |  |
|-------------------------------------|--|
| Model name                          | ARIANEXT LITE 80 M-T LINK R32                  |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

## EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Q <sub>he</sub>  | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RXL

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RXL                        |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2°C                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = +2°C                                       | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7°C                                       | 3.10 kW         | 2.81 kW            |
| COP Tj = +7°C                                       | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12°C                                       | 3.28 kW         | 3.16 kW            |
| COP Tj = 12°C                                       | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model AEROTOP MONO 08.2 M-RL

|                                     |  |
|-------------------------------------|--|
| Model name                          | AEROTOP MONO 08.2 M-RL                         |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

## EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model ENERGION M LIGHT 80

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M LIGHT 80                            |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| Reversibility                       | Yes  |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C                         |
| Any additional heat sources         | n/a  |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |

|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |

## Model ENERGION M LIGHT 80T

|                                     |  |
|-------------------------------------|--|
| Model name                          | ENERGION M LIGHT 80T                           |
| Application                         | Heating (medium temp)                          |
| Units                               | Indoor, Outdoor                                |
| Climate zone (for heating)          | Colder, Warmer, Warmer Climate, Colder Climate |
| 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  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| P <sub>designh</sub>                    | 8.37 kW         | 7.62 kW            |
| η <sub>s</sub>                          | 195 %           | 140 %              |
| P <sub>rated</sub>                      | 8.37 kW         | 7.62 kW            |
| SCOP                                    | 4.95            | 3.57               |
| T <sub>biv</sub>                        | -7 °C           | -7 °C              |
| TOL                                     | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 7.40 kW         | 6.74 kW            |
| COP T <sub>j</sub> = -7°C               | 3.10            | 2.29               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 0.994           | 0.995              |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 4.54 kW         | 4.22 kW            |
| COP T <sub>j</sub> = +2°C               | 4.80            | 3.51               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 0.985           | 0.988              |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 2.94 kW         | 2.74 kW            |
| COP T <sub>j</sub> = +7°C               | 6.61            | 4.36               |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 0.969           | 0.978              |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 3.16 kW         | 3.28 kW            |
| COP T <sub>j</sub> = 12°C               | 8.15            | 6.50               |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C | 0.964           | 0.972              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 7.40 kW     | 6.74 kW     |
| COP Tj = Tbiv                                       | 3.10        | 2.29        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.994       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.86 kW     | 2.72 kW     |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 3491 kWh    | 4409 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| Pdesignh        | 11.78 kW        | 11.53 kW           |
| ηs              | 154 %           | 121 %              |
| Prated          | 11.78 kW        | 11.53 kW           |
| SCOP            | 3.92            | 3.11               |
| Tbiv            | -7 °C           | -7 °C              |
| TOL             | -20 °C          | -20 °C             |
| Pdh Tj = -7°C   | 7.13 kW         | 6.98 kW            |
| COP Tj = -7°C   | 3.47            | 2.73               |
| Cdh Tj = -7 °C  | 0.993           | 0.995              |
| Pdh Tj = +2°C   | 4.51 kW         | 4.20 kW            |
| COP Tj = +2°C   | 5.32            | 4.07               |
| Cdh Tj = +2 °C  | 0.983           | 0.986              |
| Pdh Tj = +7°C   | 3.06 kW         | 2.84 kW            |
| COP Tj = +7°C   | 7.24            | 5.15               |
| Cdh Tj = +7 °C  | 0.967           | 0.975              |
| Pdh Tj = 12°C   | 3.18 kW         | 3.24 kW            |
| COP Tj = 12°C   | 8.02            | 6.47               |
| Cdh Tj = +12 °C | 0.965           | 0.972              |
| Pdh Tj = Tbiv   | 7.13 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 3.47            | 2.73               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW     | 4.90 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22        | 1.51        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.993       | 0.995       |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| PTO   | 14 W        | 14 W        |
| PSB   | 14 W        | 14 W        |
| PCK   | 14 W        | 14 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.16 kW    | 10.93 kW    |
| Backup Heater                                       | 4.00 kW     | 4.00 kW     |
| Annual energy consumption Qhe                       | 7400 kWh    | 9141 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 31 dB(A)        | 31 dB(A)           |
| Sound power level outdoor | 57 dB(A)        | 57 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| Pdesignh  | 4.93 kW         | 4.48 kW            |
| $\eta_s$  | 247 %           | 152 %              |
| Prated  | 4.91 kW         | 4.30 kW            |
| SCOP  | 6.25            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = +2 °C                                      | 4.91 kW         | 4.30 kW            |
| COP Tj = +2 °C                                      | 4.05            | 2.50               |
| Cdh Tj = +2 °C                                      | 0.988           | 0.992              |
| Pdh Tj = +7 °C                                      | 3.10 kW         | 2.81 kW            |
| COP Tj = +7 °C                                      | 5.70            | 3.08               |
| Cdh Tj = +7 °C                                      | 0.974           | 0.985              |
| Pdh Tj = 12 °C                                      | 3.28 kW         | 3.16 kW            |
| COP Tj = 12 °C                                      | 7.86            | 5.45               |
| Cdh Tj = +12 °C                                     | 0.966           | 0.976              |
| Pdh Tj = Tbiv                                       | 4.91 kW         | 4.30 kW            |
| COP Tj = Tbiv                                       | 4.05            | 2.50               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.51 kW         | 4.90 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.22            | 1.51               |
| WTOL  | 60 °C           | 60 °C              |
| Poff  | 14 W            | 14 W               |



|  |          |          |
|--|----------|----------|
| PTO  | 14 W     | 14 W     |
| PSB  | 14 W     | 14 W     |
| PCK  | 14 W     | 14 W     |
| Supplementary Heater: Type of energy input | n/a      | n/a      |
| Supplementary Heater: PSUP                 | 0.00 kW  | 0.00 kW  |
| Backup Heater                              | 4.00 kW  | 4.00 kW  |
| Annual energy consumption Qhe              | 1049 kWh | 1483 kWh |