

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | | | |
|----------------------------|---|--|----------|-----------------|
| Summary of | NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGION M 11 | | Reg. No. | ICIM-PDC-000001 |
| Certificate Holder | | | | |
| Name | Ariston Thermo Group | | | |
| Address | Viale Aristide Merloni 45 | | Zip | I-60044 |
| City | Fabriano (AN) | | Country | Italy |
| Certification Body | ICIM S.p.A. | | | |
| Name of testing laboratory | -Transition Rules- | | | |
| Subtype title | NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGION M 11 | | | |
| Heat Pump Type | Outdoor Air/Water | | | |
| Refrigerant | R410a | | | |
| Mass Of Refrigerant | 3.9 kg | | | |
| Certification Date | 19.12.2017 | | | |

Model: AEROTOP MONO 11M-R

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP MONO 11M-RL

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT LITE 110 M-T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

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| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

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| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

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| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT LITE 110 M-T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
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EN 14825

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| η_s | 189 % | 132 % |
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| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
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| EN 14825 | | |
|-----------------|------------------------|---------------------------|
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This information was generated by the HP KEYMARK database on 17 Dec 2020

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|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
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| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT PLUS 110 M-T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT PLUS 110 M-T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS PLUS 110 M-T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS POCKET 110 M-T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP MONO 11M-CR

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT COMPACT 110 M-T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η _s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT FLEX 110 M-T - 300 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: ARIANEXT FLEX 110 M-T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS COMPACT 110 M-T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS FLEX 110 M-T - 300 NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: NIMBUS FLEX 110 M-T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT COMPACT 110 M-T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 127 % |
| COP | 3.01 |
| Heating up time | 00:47 h:min |
| Standby power input | 38.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 247 l |

Model: ARIANEXT FLEX 110 M-T - 300

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 131 % |
| COP | 3.10 |
| Heating up time | 01:52 h:min |
| Standby power input | 61.0 W |
| Reference hot water temperature | 54.4 °C |
| Mixed water at 40°C | 434 l |

Model: ARIANEXT FLEX 110 M-T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 127 % |
| COP | 3.01 |
| Heating up time | 00:47 h:min |
| Standby power input | 38.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 247 l |

Model: AEROTOP MONO 11M-RX

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP MONO 11M-RXL

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT LITE 110 M LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT LITE 110 M

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT PLUS 110 M LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT PLUS 110 M

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS PLUS 110 M NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS POCKET 110 M NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η _s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP MONO 11M-CRX

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT COMPACT 110 M LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT FLEX 110 M LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT FLEX 110 M - 300 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η _s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: NIMBUS COMPACT 110 M NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS FLEX 110 M NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS FLEX 110 M - 300 NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: ARIANEXT COMPACT 110 M

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 127 % |
| COP | 3.01 |
| Heating up time | 00:47 h:min |
| Standby power input | 38.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 247 l |

Model: ARIANEXT FLEX 110 M

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 127 % |
| COP | 3.01 |
| Heating up time | 00:47 h:min |
| Standby power input | 38.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 247 l |

Model: ARIANEXT FLEX 110 M - 300

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 131 % |
| COP | 3.10 |
| Heating up time | 01:52 h:min |
| Standby power input | 61.0 W |
| Reference hot water temperature | 54.4 °C |
| Mixed water at 40°C | 434 l |

Model: ENERGION M PLUS 11

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ENERGION M PLUS 11 T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ENERGION M LIGHT 11

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ENERGION M LIGHT 11 T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ENERGION M FLEX 11 180 e

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ENERGION M FLEX 11 T 180 e

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ENERGION M FLEX 11 300 e

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: **ENERGION M FLEX 11 T 300 e**

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 122 % |
| COP | 3.06 |
| Heating up time | 01:52 h:min |
| Standby power input | 53.0 W |
| Reference hot water temperature | 54.5 °C |
| Mixed water at 40°C | 434 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 132 % |
| COP | 3.30 |
| Heating up time | 01:34 h:min |
| Standby power input | 48.0 W |
| Reference hot water temperature | 54.2 °C |
| Mixed water at 40°C | 430 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XXL |
| Efficiency η_{DHW} | 97 % |
| COP | 2.43 |
| Heating up time | 02:15 h:min |
| Standby power input | 63.0 W |
| Reference hot water temperature | 53.4 °C |
| Mixed water at 40°C | 422 l |

Model: ENERGION M COMPACT 11

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ENERGION M COMPACT 11 T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η _s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-------------|-------------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: **ENERGION M HYBRIDall 11**

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: **ENERGION M HYBRIDall 11 T**

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ATAG p ENERGION M HYBRIDzone 11

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ATAG p ENERGION M HYBRIDzone 11 T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ATAG i ENERGION M HYBRIDzone 11

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ATAG i ENERGION M HYBRIDzone 11 T

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 8.45 kW | 12.05 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS M HYBRID 11 NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS M HYBRID 11 T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS M HYBRID FLEX 11 NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS M HYBRID FLEX 11 T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: NIMBUS M HYBRID UNIVERSAL 11 NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η _s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS M HYBRID UNIVERSAL 11 T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT M HYBRID 11 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT M HYBRID 11 T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT M HYBRID FLEX 11 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT M HYBRID FLEX 11 T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 106 % |
| COP | 2.56 |
| Heating up time | 01:28 h:min |
| Standby power input | 52.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 251 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 111 % |
| COP | 2.70 |
| Heating up time | 01:16 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 53.2 °C |
| Mixed water at 40°C | 248 l |

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 89 % |
| COP | 2.15 |
| Heating up time | 01:49 h:min |
| Standby power input | 57.0 W |
| Reference hot water temperature | 53.6 °C |
| Mixed water at 40°C | 250 l |

Model: ARIANEXT M HYBRID UNIVERSAL 11 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: ARIANEXT M HYBRID UNIVERSAL 11 T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP HYBRID MINI EVO 11

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: AEROTOP HYBRID UNIVERSAL 11

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.51 kW | 0.08 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|---|----------|----------|
| P _{designh} | 7.96 kW | 7.45 kW |
| η_s | 245 % | 161 % |
| P _{rated} | 10.80 kW | 10.00 kW |
| SCOP | 6.21 | 4.10 |
| T _{biv} | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| P _{dh} T _j = +2°C | 7.96 kW | 7.45 kW |
| COP T _j = +2°C | 4.07 | 2.38 |
| P _{dh} T _j = +7°C | 5.36 kW | 5.05 kW |
| COP T _j = +7°C | 5.51 | 3.47 |
| P _{dh} T _j = 12°C | 4.40 kW | 4.15 kW |
| COP T _j = 12°C | 8.35 | 5.86 |
| P _{dh} T _j = T _{biv} | 7.96 kW | 7.45 kW |
| COP T _j = T _{biv} | 4.07 | 2.38 |
| P _{dh} T _j = TOL | 7.96 kW | 7.45 kW |
| COP T _j = TOL | 4.07 | 2.38 |
| C _{dh} | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| P _{off} | 20 W | 20 W |
| PTO | 20 W | 20 W |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1714 kWh | 2425 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 15 dB(A) | 15 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| P _{designh} | 18.17 kW | 17.24 kW |
| η_s | 150 % | 113 % |
| P _{rated} | 8.20 kW | 7.40 kW |
| SCOP | 3.82 | 2.91 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| P _{dh} T _j = -7°C | 11.00 kW | 10.44 kW |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|-----------|-----------|
| COP Tj = -7°C | 3.46 | 2.73 |
| Pdh Tj = +2°C | 6.70 kW | 6.35 kW |
| COP Tj = +2°C | 3.46 | 3.83 |
| Pdh Tj = +7°C | 4.39 kW | 4.19 kW |
| COP Tj = +7°C | 6.60 | 5.06 |
| Pdh Tj = 12°C | 4.41 kW | 4.27 kW |
| COP Tj = 12°C | 8.45 | 7.06 |
| Pdh Tj = Tbiv | 11.00 kW | 10.44 kW |
| COP Tj = Tbiv | 3.46 | 2.73 |
| Pdh Tj = TOL | 8.76 kW | 4.29 kW |
| COP Tj = TOL | 2.20 | 0.92 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 6.00 kW | 6.00 kW |
| Annual energy consumption Qhe | 11736 kWh | 14608 kWh |

Model: NIMBUS M FLEX IN 11 NET

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Model: NIMBUS M FLEX IN 11 T NET

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Model: ARIANEXT M FLEX IN 11 LINK

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Model: ARIANEXT M FLEX IN 11 T LINK

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Model: AEROTOP MONO BUILT-IN 11M-CRX

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

| | | |
|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
| COP Tj = Tbiv | 3.19 | 2.31 |
| Pdh Tj = TOL | 12.05 kW | 11.47 kW |
| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |

Model: AEROTOP MONO BUILT-IN 11M-CR

General Data

| | |
|--------------|-------------|
| Power supply | 3x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|------------------------|------------------------|
| Heat output | 10.40 kW | 9.45 kW |
| El input | 2.08 kW | 3.15 kW |
| COP | 5.00 | 3.00 |
| Indoor water flow rate | 1.80 m ³ /h | 1.03 m ³ /h |

EN 14511-4

| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

Average Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 0 dB(A) | 0 dB(A) |
| Sound power level outdoor | 63 dB(A) | 63 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------------------------------|-----------------|--------------------|
| P _{designh} | 12.56 kW | 11.55 kW |
| η_s | 189 % | 132 % |
| P _{rated} | 10.60 kW | 9.60 kW |
| SCOP | 4.80 | 3.38 |
| T _{biv} | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.11 kW | 10.22 kW |
| COP T _j = -7°C | 3.19 | 2.31 |
| P _{dh} T _j = +2°C | 6.77 kW | 6.23 kW |
| COP T _j = +2°C | 4.61 | 3.42 |
| P _{dh} T _j = +7°C | 4.35 kW | 4.00 kW |
| COP T _j = +7°C | 6.16 | 3.80 |
| P _{dh} T _j = 12°C | 4.41 kW | 4.07 kW |
| COP T _j = 12°C | 8.45 | 5.63 |

This information was generated by the HP KEYMARK database on 17 Dec 2020

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|--|----------|----------|
| Pdh Tj = Tbiv | 11.11 kW | 10.22 kW |
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| COP Tj = TOL | 2.80 | 2.05 |
| Cdh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 20 W | 20 W |
| PTO | 20 W | 20 W |
| PSB | 20 W | 20 W |
| PCK | 20 W | 20 W |
| Supplementary Heater: Type of energy input | gas | gas |
| Supplementary Heater: PSUP | 0.50 kW | 0.10 kW |
| Annual energy consumption Qhe | 5411 kWh | 7070 kWh |