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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.			
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

Configure model

Model name	AEROTOP MONO 11M-R
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP MONO 11M-RL
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT LITE 110 M-T LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT LITE 110 M-T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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
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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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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Pdh Tj = 12°C	4.41 kW	4.27 kW
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Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT PLUS 110 M-T LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT PLUS 110 M-T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS PLUS 110 M-T NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS POCKET 110 M-T NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model

Model name	AEROTOP MONO 11M-CR
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 COMPACT 110 M-T LINK

Configure model

Model name	ARIANEXT COMPACT 110 M-T LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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-T - 300 LINK

Configure model	
Model name	ARIANEXT FLEX 110 M-T - 300 LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ARIANEXT FLEX 110 M-T LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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: NIMBUS COMPACT 110 M-T NET

Configure model	
Model name	NIMBUS COMPACT 110 M-T NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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: NIMBUS FLEX 110 M-T - 300 NET

Configure model	
Model name	NIMBUS FLEX 110 M-T - 300 NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
Prated	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	NIMBUS FLEX 110 M-T NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 COMPACT 110 M-T

Configure model	
Model name	ARIANEXT COMPACT 110 M-T
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	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

Configure model	
Model name	ARIANEXT FLEX 110 M-T - 300
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT FLEX 110 M-T
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

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

Configure model	
Model name	AEROTOP MONO 11M-RX
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP MONO 11M-RXL
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT LITE 110 M LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT LITE 110 M
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT PLUS 110 M LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT PLUS 110 M
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS PLUS 110 M NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS POCKET 110 M NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP MONO 11M-CRX
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 COMPACT 110 M LINK

Configure model

Model name	ARIANEXT COMPACT 110 M LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	1x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT FLEX 110 M LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 - 300 LINK

Configure model	
Model name	ARIANEXT FLEX 110 M - 300 LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	NIMBUS COMPACT 110 M NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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: NIMBUS FLEX 110 M NET

Configure model	
Model name	NIMBUS FLEX 110 M NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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: NIMBUS FLEX 110 M - 300 NET

Configure model	
Model name	NIMBUS FLEX 110 M - 300 NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ARIANEXT COMPACT 110 M
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	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

Configure model	
Model name	ARIANEXT FLEX 110 M
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	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

Configure model	
Model name	ARIANEXT FLEX 110 M - 300
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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: ENERGION M PLUS 11

Configure model	
Model name	ENERGION M PLUS 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ENERGION M PLUS 11 T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ENERGION M LIGHT 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ENERGION M LIGHT 11 T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ENERGION M FLEX 11 180 e
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
Prated	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 FLEX 11 T 180 e

Configure model	
Model name	ENERGION M FLEX 11 T 180 e
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 FLEX 11 300 e

Configure model	
Model name	ENERGION M FLEX 11 300 e
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ENERGION M FLEX 11 T 300 e
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
Prated	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ENERGION M COMPACT 11
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ENERGION M COMPACT 11 T
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 HYBRIDall 11

Configure model	
Model name	ENERGION M HYBRIDall 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model

Model name	ENERGION M HYBRIDall 11 T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ATAG p ENERGION M HYBRIDzone 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ATAG p ENERGION M HYBRIDzone 11 T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ATAG i ENERGION M HYBRIDzone 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ATAG i ENERGION M HYBRIDzone 11 T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
Prated	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M HYBRID 11 NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M HYBRID 11 T NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M HYBRID FLEX 11 NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

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

Configure model	
Model name	NIMBUS M HYBRID FLEX 11 T NET
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	NIMBUS M HYBRID UNIVERSAL 11 NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M HYBRID UNIVERSAL 11 T NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT M HYBRID 11 LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT M HYBRID 11 T LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model

Model name	ARIANEXT M HYBRID FLEX 11 LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	1x230V 50Hz
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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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ARIANEXT M HYBRID FLEX 11 T LINK
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

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

Configure model	
Model name	ARIANEXT M HYBRID UNIVERSAL 11 LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model

Model name	ARIANEXT M HYBRID UNIVERSAL 11 T LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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}	12.56 kW	11.55 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

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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)

This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 14825

	Low temperature	Medium temperature
$P_{designh}$	7.96 kW	7.45 kW
η_s	245 %	161 %
P_{rated}	7.96 kW	7.45 kW
SCOP	6.21	4.10
T_{biv}	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	7.96 kW	7.45 kW
$COP T_j = +2^{\circ}C$	4.07	2.38
$P_{dh} T_j = +7^{\circ}C$	5.36 kW	5.05 kW
$COP T_j = +7^{\circ}C$	5.51	3.47
$P_{dh} T_j = 12^{\circ}C$	4.40 kW	4.15 kW
$COP T_j = 12^{\circ}C$	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
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	7.96 kW	7.45 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	4.07	2.38
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

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	0.00 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 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = -7°C	11.00 kW	10.44 kW
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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP HYBRID MINI EVO 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP HYBRID UNIVERSAL 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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 18 Mar 2022

P _{designh}	7.96 kW	7.45 kW
η_s	245 %	161 %
P _{rated}	7.96 kW	7.45 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 or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.96 kW	7.45 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.07	2.38
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	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 18 Mar 2022

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}	18.17 kW	17.24 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 18 Mar 2022

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M FLEX IN 11 NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 kW
SCOP	4.80	3.38
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	11.11 kW	10.22 kW
$COP T_j = -7^{\circ}C$	3.19	2.31
$P_{dh} T_j = +2^{\circ}C$	6.77 kW	6.23 kW
$COP T_j = +2^{\circ}C$	4.61	3.42
$P_{dh} T_j = +7^{\circ}C$	4.35 kW	4.00 kW
$COP T_j = +7^{\circ}C$	6.16	3.80
$P_{dh} T_j = 12^{\circ}C$	4.41 kW	4.07 kW
$COP T_j = 12^{\circ}C$	8.45	5.63

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	NIMBUS M FLEX IN 11 T NET
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT M FLEX IN 11 LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	ARIANEXT M FLEX IN 11 T LINK
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model	
Model name	AEROTOP MONO BUILT-IN 11M-CRX
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

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

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}	12.56 kW	11.55 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 18 Mar 2022

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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

Configure model

Model name	AEROTOP MONO BUILT-IN 11M-CR
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x230V 50Hz
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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

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
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COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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