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Summary of	NIMBUS 90 M - ARIANEXT 90 M - AEROTOP MONO 09 - ENERGION M 9	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 90 M - ARIANEXT 90 M - AEROTOP MONO 09 - ENERGION M 9		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	3.9 kg		
Certification Date	19.12.2017		

Model: AEROTOP MONO 09M-R

Configure model	
Model name	AEROTOP MONO 09M-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

Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

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η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

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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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO 09M-RL

Configure model	
Model name	AEROTOP MONO 09M-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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Warmer Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

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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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT LITE 90 M-T LINK

Configure model	
Model name	ARIANEXT LITE 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT LITE 90 M-T

Configure model	
Model name	ARIANEXT LITE 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

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SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
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COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
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Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT PLUS 90 M-T LINK

Configure model	
Model name	ARIANEXT PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT PLUS 90 M-T

Configure model	
Model name	ARIANEXT PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS PLUS 90 M-T NET

Configure model	
Model name	NIMBUS PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS POCKET 90 M-T NET

Configure model	
Model name	NIMBUS POCKET 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO 09M-CR

Configure model	
Model name	AEROTOP MONO 09M-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

Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ARIANEXT COMPACT 90 M-T LINK

Configure model	
Model name	ARIANEXT COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT FLEX 90 M-T - 300 LINK

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ARIANEXT FLEX 90 M-T LINK

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS COMPACT 90 M-T NET

Configure model	
Model name	NIMBUS COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS FLEX 90 M-T - 300 NET

Configure model	
Model name	NIMBUS FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS FLEX 90 M-T NET

Configure model	
Model name	NIMBUS FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT COMPACT 90 M-T

Configure model	
Model name	ARIANEXT COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 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: ARIANEXT FLEX 90 M-T - 300

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	10.61 kW	9.39 kW
η_s	189 %	129 %
P_{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	9.38 kW	8.31 kW
$COP T_j = -7^{\circ}C$	3.29	2.32
$P_{dh} T_j = +2^{\circ}C$	5.71 kW	5.33 kW
$COP T_j = +2^{\circ}C$	4.67	3.33
$P_{dh} T_j = +7^{\circ}C$	3.67 kW	3.48 kW
$COP T_j = +7^{\circ}C$	6.01	3.80
$P_{dh} T_j = 12^{\circ}C$	4.44 kW	4.02 kW
$COP T_j = 12^{\circ}C$	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 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 90 M-T

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 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: AEROTOP MONO 09M-RX

Configure model	
Model name	AEROTOP MONO 09M-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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO 09M-RXL

Configure model	
Model name	AEROTOP MONO 09M-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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT LITE 90 M LINK

Configure model	
Model name	ARIANEXT LITE 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT LITE 90 M

Configure model	
Model name	ARIANEXT LITE 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT PLUS 90 M LINK

Configure model	
Model name	ARIANEXT PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT PLUS 90 M

Configure model	
Model name	ARIANEXT PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS PLUS 90 M NET

Configure model	
Model name	NIMBUS PLUS 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS POCKET 90 M NET

Configure model	
Model name	NIMBUS POCKET 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO 09M-CRX

Configure model	
Model name	AEROTOP MONO 09M-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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT COMPACT 90 M LINK

Configure model	
Model name	ARIANEXT COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT FLEX 90 M LINK

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ARIANEXT FLEX 90 M - 300 LINK

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS COMPACT 90 M NET

Configure model	
Model name	NIMBUS COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS FLEX 90 M NET

Configure model	
Model name	NIMBUS FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS FLEX 90 M - 300 NET

Configure model	
Model name	NIMBUS FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ARIANEXT COMPACT 90 M

Configure model	
Model name	ARIANEXT COMPACT 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 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 90 M

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 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: ARIANEXT FLEX 90 M - 300

Configure model	
Model name	ARIANEXT FLEX 90 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 9

Configure model	
Model name	ENERGION M PLUS 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ENERGION M PLUS 9 T

Configure model	
Model name	ENERGION M PLUS 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ENERGION M LIGHT 9

Configure model	
Model name	ENERGION M LIGHT 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ENERGION M LIGHT 9 T

Configure model	
Model name	ENERGION M LIGHT 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ENERGION M FLEX 9 180 e

Configure model	
Model name	ENERGION M FLEX 9 180 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ENERGION M FLEX 9 T 180 e

Configure model	
Model name	ENERGION M FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η _s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ENERGION M FLEX 9 300 e

Configure model	
Model name	ENERGION M FLEX 9 300 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

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

EN 14825

	Low temperature	Medium temperature
$P_{designh}$	6.65 kW	6.26 kW
η_s	234 %	153 %
P_{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T_{biv}	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}\text{C}$	6.65 kW	6.26 kW
$COP T_j = +2^{\circ}\text{C}$	3.90	2.33
$P_{dh} T_j = +7^{\circ}\text{C}$	4.46 kW	4.18 kW
$COP T_j = +7^{\circ}\text{C}$	5.44	3.31
$P_{dh} T_j = 12^{\circ}\text{C}$	4.36 kW	4.12 kW
$COP T_j = 12^{\circ}\text{C}$	8.45	5.73
$P_{dh} T_j = T_{biv}$	6.65 kW	6.26 kW
$COP T_j = T_{biv}$	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ENERGION M FLEX 9 T 300 e

Configure model	
Model name	ENERGION M FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ENERGION M COMPACT 9

Configure model	
Model name	ENERGION M COMPACT 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ENERGION M COMPACT 9 T

Configure model	
Model name	ENERGION M COMPACT 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	6.65 kW	6.26 kW
η_s	234 %	153 %
P_{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T_{biv}	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	6.65 kW	6.26 kW
$COP T_j = +2^{\circ}C$	3.90	2.33
$P_{dh} T_j = +7^{\circ}C$	4.46 kW	4.18 kW
$COP T_j = +7^{\circ}C$	5.44	3.31
$P_{dh} T_j = 12^{\circ}C$	4.36 kW	4.12 kW
$COP T_j = 12^{\circ}C$	8.45	5.73
$P_{dh} T_j = T_{biv}$	6.65 kW	6.26 kW
$COP T_j = T_{biv}$	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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 Q_{he}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: ENERGION M HYBRIDall 9

Configure model	
Model name	ENERGION M HYBRIDall 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ENERGION M HYBRIDaII 9 T

Configure model	
Model name	ENERGION M HYBRIDaII 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ATAG p ENERGION M HYBRIDzone 9

Configure model	
Model name	ATAG p ENERGION M HYBRIDzone 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ATAG p ENERGION M HYBRIDzone 9 T

Configure model	
Model name	ATAG p ENERGION M HYBRIDzone 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ATAG i ENERGION M HYBRIDzone 9

Configure model	
Model name	ATAG i ENERGION M HYBRIDzone 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ATAG i ENERGION M HYBRIDzone 9 T

Configure model	
Model name	ATAG i ENERGION M HYBRIDzone 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power 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}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M HYBRID 9 NET

Configure model	
Model name	NIMBUS M HYBRID 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M HYBRID 9 T NET

Configure model	
Model name	NIMBUS M HYBRID 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M HYBRID FLEX 9 NET

Configure model	
Model name	NIMBUS M HYBRID FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	6.65 kW	6.26 kW
η_s	234 %	153 %
P_{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T_{biv}	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}\text{C}$	6.65 kW	6.26 kW
$COP T_j = +2^{\circ}\text{C}$	3.90	2.33
$P_{dh} T_j = +7^{\circ}\text{C}$	4.46 kW	4.18 kW
$COP T_j = +7^{\circ}\text{C}$	5.44	3.31
$P_{dh} T_j = 12^{\circ}\text{C}$	4.36 kW	4.12 kW
$COP T_j = 12^{\circ}\text{C}$	8.45	5.73
$P_{dh} T_j = T_{biv}$	6.65 kW	6.26 kW
$COP T_j = T_{biv}$	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS M HYBRID FLEX 9 T NET

Configure model	
Model name	NIMBUS M HYBRID FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

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

Model: NIMBUS M HYBRID UNIVERSAL 9 NET

Configure model	
Model name	NIMBUS M HYBRID UNIVERSAL 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M HYBRID UNIVERSAL 9 T NET

Configure model	
Model name	NIMBUS M HYBRID UNIVERSAL 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M HYBRID 9 LINK

Configure model	
Model name	ARIANEXT M HYBRID 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M HYBRID 9 T LINK

Configure model	
Model name	ARIANEXT M HYBRID 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	6.65 kW	6.26 kW
η_s	234 %	153 %
P_{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T_{biv}	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	6.65 kW	6.26 kW
$COP T_j = +2^{\circ}C$	3.90	2.33
$P_{dh} T_j = +7^{\circ}C$	4.46 kW	4.18 kW
$COP T_j = +7^{\circ}C$	5.44	3.31
$P_{dh} T_j = 12^{\circ}C$	4.36 kW	4.12 kW
$COP T_j = 12^{\circ}C$	8.45	5.73
$P_{dh} T_j = T_{biv}$	6.65 kW	6.26 kW
$COP T_j = T_{biv}$	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M HYBRID FLEX 9 LINK

Configure model	
Model name	ARIANEXT M HYBRID FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT M HYBRID FLEX 9 T LINK

Configure model	
Model name	ARIANEXT M HYBRID FLEX 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Domestic Hot Water (DHW)

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

Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Model: ARIANEXT M HYBRID UNIVERSAL 9 LINK

Configure model	
Model name	ARIANEXT M HYBRID UNIVERSAL 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP HYBRID MINI EVO 9

Configure model	
Model name	AEROTOP HYBRID MINI EVO 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP HYBRID UNIVERSAL 9

Configure model	
Model name	AEROTOP HYBRID UNIVERSAL 9
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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW
COP T _j = T _{biv}	3.90	2.33

This information was generated by the HP KEYMARK database on 7 Jul 2022

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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
$P_{designh}$	15.17 kW	13.91 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

η_s	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 2022

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 Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M HYBRID UNIVERSAL 9 T LINK

Configure model

Model name	ARIANEXT M HYBRID UNIVERSAL 9 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 14511-4

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

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
P _{designh}	6.65 kW	6.26 kW
η_s	234 %	153 %
P _{rated}	6.65 kW	6.26 kW
SCOP	6.07	3.91
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	6.65 kW	6.26 kW
COP T _j = +2°C	3.90	2.33
P _{dh} T _j = +7°C	4.46 kW	4.18 kW
COP T _j = +7°C	5.44	3.31
P _{dh} T _j = 12°C	4.36 kW	4.12 kW
COP T _j = 12°C	8.45	5.73
P _{dh} T _j = T _{biv}	6.65 kW	6.26 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	3.90	2.33
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.65 kW	6.26 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.90	2.33
$C_{dh} T_j = TOL$ 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
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}	1464 kWh	2142 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

This information was generated by the HP KEYMARK database on 7 Jul 2022

P _{designh}	15.17 kW	13.91 kW
η_s	152 %	109 %
P _{rated}	15.17 kW	13.91 kW
SCOP	3.88	2.81
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.18 kW	8.42 kW
COP T _j = -7°C	3.67	2.77
P _{dh} T _j = +2°C	5.61 kW	5.12 kW
COP T _j = +2°C	5.17	3.67
P _{dh} T _j = +7°C	3.68 kW	3.75 kW
COP T _j = +7°C	6.75	5.12
P _{dh} T _j = 12°C	4.43 kW	4.30 kW
COP T _j = 12°C	8.92	6.96
P _{dh} T _j = T _{biv}	9.18 kW	8.42 kW
COP T _j = T _{biv}	3.67	2.77
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	6.31 kW	2.06 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.18	0.54
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

This information was generated by the HP KEYMARK database on 7 Jul 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	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	9625 kWh	12191 kWh

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
Prated	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M FLEX IN 9 NET

Configure model	
Model name	NIMBUS M FLEX IN 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: NIMBUS M FLEX IN 9 T NET

Configure model	
Model name	NIMBUS M FLEX IN 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M FLEX IN 9 LINK

Configure model	
Model name	ARIANEXT M FLEX IN 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	10.61 kW	9.39 kW
η_s	189 %	129 %
P_{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	9.38 kW	8.31 kW
$COP T_j = -7^{\circ}C$	3.29	2.32
$P_{dh} T_j = +2^{\circ}C$	5.71 kW	5.33 kW
$COP T_j = +2^{\circ}C$	4.67	3.33
$P_{dh} T_j = +7^{\circ}C$	3.67 kW	3.48 kW
$COP T_j = +7^{\circ}C$	6.01	3.80
$P_{dh} T_j = 12^{\circ}C$	4.44 kW	4.02 kW
$COP T_j = 12^{\circ}C$	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: ARIANEXT M FLEX IN 9 T LINK

Configure model	
Model name	ARIANEXT M FLEX IN 9 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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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
$P_{designh}$	10.61 kW	9.39 kW
η_s	189 %	129 %
P_{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T_{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	9.38 kW	8.31 kW
$COP T_j = -7^{\circ}C$	3.29	2.32
$P_{dh} T_j = +2^{\circ}C$	5.71 kW	5.33 kW
$COP T_j = +2^{\circ}C$	4.67	3.33
$P_{dh} T_j = +7^{\circ}C$	3.67 kW	3.48 kW
$COP T_j = +7^{\circ}C$	6.01	3.80
$P_{dh} T_j = 12^{\circ}C$	4.44 kW	4.02 kW
$COP T_j = 12^{\circ}C$	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO BUILT-IN 09M-CRX

Configure model	
Model name	AEROTOP MONO BUILT-IN 09M-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 14511-4	
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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
COP T _j = +7°C	6.01	3.80
P _{dh} T _j = 12°C	4.44 kW	4.02 kW
COP T _j = 12°C	8.76	5.81

This information was generated by the HP KEYMARK database on 7 Jul 2022

Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
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	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

Model: AEROTOP MONO BUILT-IN 09M-CR

Configure model	
Model name	AEROTOP MONO BUILT-IN 09M-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

Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

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}	10.61 kW	9.39 kW
η_s	189 %	129 %
P _{rated}	10.61 kW	9.39 kW
SCOP	4.80	3.30
T _{biv}	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	9.38 kW	8.31 kW
COP T _j = -7°C	3.29	2.32
P _{dh} T _j = +2°C	5.71 kW	5.33 kW
COP T _j = +2°C	4.67	3.33
P _{dh} T _j = +7°C	3.67 kW	3.48 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
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Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
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