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Summary of	NIMBUS 40 M - ARIANEXT 40 M - AEROTOP MONO 04X - ENERGION M 4		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 40 M - ARIANEXT 40 M - AEROTOP MONO 04X - ENERGION M 4			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	1.88 kg			
Certification Date	19.12.2017			

# Model: AEROTOP MONO 04M-RX 1Z

Configure model	
Model name	AEROTOP MONO 04M-RX 1Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: AEROTOP MONO 04M-RX 2Z

Configure model	
Model name	AEROTOP MONO 04M-RX 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: AEROTOP MONO 04M-RXL

Configure model	
Model name	AEROTOP MONO 04M-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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: AEROTOP MONO 04M-X 1Z

Configure model	
Model name	AEROTOP MONO 04M-X 1Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: AEROTOP MONO 04M-X 2Z

Configure model	
Model name	AEROTOP MONO 04M-X 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT LITE 40 M LINK

Configure model	
Model name	ARIANEXT LITE 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate



### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT LITE 40 M

Configure model	
Model name	ARIANEXT LITE 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: ARIANEXT PLUS 40 M 2Z H LINK

Configure model	
Model name	ARIANEXT PLUS 40 M 2Z H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M 2Z H

Configure model	
Model name	ARIANEXT PLUS 40 M 2Z H
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M 2Z LINK

Configure model	
Model name	ARIANEXT PLUS 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate



### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M 2Z

Configure model	
Model name	ARIANEXT PLUS 40 M 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M H LINK

Configure model	
Model name	ARIANEXT PLUS 40 M H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M H

Configure model	
Model name	ARIANEXT PLUS 40 M H
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M LINK

Configure model	
Model name	ARIANEXT PLUS 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate



### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT PLUS 40 M

Configure model	
Model name	ARIANEXT PLUS 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS PLUS 40 M 2Z H NET

Configure model	
Model name	NIMBUS PLUS 40 M 2Z H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS PLUS 40 M 2Z NET

Configure model	
Model name	NIMBUS PLUS 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS PLUS 40 M H NET

Configure model	
Model name	NIMBUS PLUS 40 M H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS PLUS 40 M NET

Configure model	
Model name	NIMBUS PLUS 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS POCKET 40 M NET

Configure model	
Model name	NIMBUS POCKET 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: AEROTOP MONO 04M-CRX 1Z

Configure model	
Model name	AEROTOP MONO 04M-CRX 1Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: AEROTOP MONO 04M-CRX 2Z

Configure model	
Model name	AEROTOP MONO 04M-CRX 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

# Model: ARIANEXT COMPACT 40 M 2Z LINK

Configure model	
Model name	ARIANEXT COMPACT 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ARIANEXT COMPACT 40 M LINK

Configure model	
Model name	ARIANEXT COMPACT 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

# Model: ARIANEXT FLEX 40 M 2Z H LINK

Configure model	
Model name	ARIANEXT FLEX 40 M 2Z H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ARIANEXT FLEX 40 M 2Z LINK

Configure model	
Model name	ARIANEXT FLEX 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ARIANEXT FLEX 40 M LINK

Configure model	
Model name	ARIANEXT FLEX 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ARIANEXT FLEX 40 M H LINK

Configure model	
Model name	ARIANEXT FLEX 40 M H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

# Model: NIMBUS COMPACT 40 M 2Z NET

Configure model	
Model name	NIMBUS COMPACT 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: NIMBUS COMPACT 40 M NET

Configure model	
Model name	NIMBUS COMPACT 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: NIMBUS FLEX 40 M 2Z H NET

Configure model	
Model name	NIMBUS FLEX 40 M 2Z H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: NIMBUS FLEX 40 M 2Z NET

Configure model	
Model name	NIMBUS FLEX 40 M 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: NIMBUS FLEX 40 M H NET

Configure model	
Model name	NIMBUS FLEX 40 M H 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: NIMBUS FLEX 40 M NET

Configure model	
Model name	NIMBUS FLEX 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ARIANEXT COMPACT 40 M 2Z

Configure model	
Model name	ARIANEXT COMPACT 40 M 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ARIANEXT COMPACT 40 M

Configure model	
Model name	ARIANEXT COMPACT 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ARIANEXT FLEX 40 M 2Z H

Configure model	
Model name	ARIANEXT FLEX 40 M 2Z H
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ARIANEXT FLEX 40 M 2Z

Configure model	
Model name	ARIANEXT FLEX 40 M 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ARIANEXT FLEX 40 M H

Configure model	
Model name	ARIANEXT FLEX 40 M H
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW
COP T <sub>j</sub> = -7°C	3.30	2.29
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.50 kW
COP T <sub>j</sub> = +2°C	4.48	3.27
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.82 kW	1.62 kW
COP T <sub>j</sub> = +7°C	5.44	3.69
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.51 kW
COP T <sub>j</sub> = 12°C	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ARIANEXT FLEX 40 M

Configure model	
Model name	ARIANEXT FLEX 40 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	250 l

## Model: ENERGION M PLUS 4

Configure model	
Model name	ENERGION M PLUS 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ENERGION M LIGHT 4

Configure model	
Model name	ENERGION M LIGHT 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ENERGION M PLUS 4 2Z

Configure model	
Model name	ENERGION M PLUS 4 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W

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

PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ENERGION M FLEX 4 180 e

Configure model	
Model name	ENERGION M FLEX 4 180 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ENERGION M FLEX 4 2Z 180 e

Configure model	
Model name	ENERGION M FLEX 4 2Z 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W

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

PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ENERGION M COMPACT 4

Configure model	
Model name	ENERGION M COMPACT 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ENERGION M COMPACT 4 2Z

Configure model	
Model name	ENERGION M COMPACT 4 2Z
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W

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

PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Model: ENERGION M HYBRIDall 4

Configure model	
Model name	ENERGION M HYBRIDall 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.42 kW	4.52 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: ATAG p ENERGION M HYBRIDzone 4

Configure model	
Model name	ATAG p ENERGION M HYBRIDzone 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## Warmer Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.42 kW	4.52 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: ATAG i ENERGION M HYBRIDzone 4

Configure model	
Model name	ATAG i ENERGION M HYBRIDzone 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
$P_{rated}$	2.80 kW	2.32 kW
SCOP	5.69	3.53
$T_{biv}$	2 °C	2 °C
TOL	2 °C	2 °C
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.32 kW
$COP T_j = +2^{\circ}C$	3.92	2.18
$P_{dh} T_j = +7^{\circ}C$	1.80 kW	1.53 kW
$COP T_j = +7^{\circ}C$	5.05	2.77
$P_{dh} T_j = 12^{\circ}C$	1.61 kW	1.61 kW
$COP T_j = 12^{\circ}C$	7.63	5.66
$P_{dh} T_j = T_{biv}$	2.80 kW	2.32 kW
$COP T_j = T_{biv}$	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.42 kW	4.52 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS M HYBRID 4 NET

Configure model	
Model name	NIMBUS M HYBRID 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS M HYBRID FLEX 4 NET

Configure model	
Model name	NIMBUS M HYBRID FLEX 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

# Model: NIMBUS M HYBRID UNIVERSAL 4 NET

Configure model	
Model name	NIMBUS M HYBRID UNIVERSAL 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT M HYBRID 4 LINK

Configure model	
Model name	ARIANEXT M HYBRID 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: ARIANEXT M HYBRID 40

Configure model	
Model name	ARIANEXT M HYBRID 40
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: ARIANEXT M HYBRID FLEX 4 LINK

Configure model	
Model name	ARIANEXT M HYBRID FLEX 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Domestic Hot Water (DHW)

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	133 %
COP	3.20
Heating up time	02:46 h:min
Standby power input	39.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	246 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.30
Heating up time	02:55 h:min
Standby power input	42.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

## Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.60
Heating up time	01:48 h:min
Standby power input	44.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	246 l

# Model: ARIANEXT M HYBRID UNIVERSAL 4 LINK

Configure model	
Model name	ARIANEXT M HYBRID UNIVERSAL 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW



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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: AEROTOP HYBRID MINI EVO 04X

Configure model	
Model name	AEROTOP HYBRID MINI EVO 04X
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW



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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: AEROTOP HYBRID MINI EVO 4

Configure model	
Model name	AEROTOP HYBRID MINI EVO 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: AEROTOP HYBRID UNIVERSAL 4

Configure model	
Model name	AEROTOP HYBRID UNIVERSAL 4
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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## 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	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	2.80 kW	2.32 kW
$\eta_s$	225 %	138 %
P <sub>rated</sub>	2.80 kW	2.32 kW
SCOP	5.69	3.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.32 kW
COP T <sub>j</sub> = +2°C	3.92	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.80 kW	1.53 kW
COP T <sub>j</sub> = +7°C	5.05	2.77
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.61 kW	1.61 kW
COP T <sub>j</sub> = 12°C	7.63	5.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.80 kW	2.32 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.92	2.18

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 $TOL < T_{designh}$	2.80 kW	2.32 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	3.92	2.18
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption $Q_{he}$	658 kWh	877 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$P_{designh}$	7.74 kW	7.37 kW

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

$\eta_s$	149 %	116 %
Prated	7.74 kW	7.37 kW
SCOP	3.80	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.46 kW
COP Tj = -7°C	3.60	2.74
Pdh Tj = +2°C	2.90 kW	2.89 kW
COP Tj = +2°C	5.05	3.77
Pdh Tj = +7°C	1.83 kW	1.75 kW
COP Tj = +7°C	6.67	5.33
Pdh Tj = 12°C	1.62 kW	1.61 kW
COP Tj = 12°C	7.80	6.21
Pdh Tj = Tbiv	4.69 kW	4.46 kW
COP Tj = Tbiv	3.60	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.92 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W

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

PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	4.00 kW	4.00 kW
Annual energy consumption Q <sub>he</sub>	5022 kWh	6088 kWh

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	5.21 kW	4.64 kW
η <sub>s</sub>	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW

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

COP Tj = -7°C	3.30	2.29
Pdh Tj = +2°C	2.80 kW	2.50 kW
COP Tj = +2°C	4.48	3.27
Pdh Tj = +7°C	1.82 kW	1.62 kW
COP Tj = +7°C	5.44	3.69
Pdh Tj = 12°C	1.54 kW	1.51 kW
COP Tj = 12°C	7.21	5.29
Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.14 kW	0.72 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

## Model: NIMBUS M FLEX IN 4 NET

Configure model	
Model name	NIMBUS M FLEX IN 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW
COP T <sub>j</sub> = -7°C	3.30	2.29
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.50 kW
COP T <sub>j</sub> = +2°C	4.48	3.27
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.82 kW	1.62 kW
COP T <sub>j</sub> = +7°C	5.44	3.69
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.51 kW
COP T <sub>j</sub> = 12°C	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.10 kW	0.70 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh



## Model: ARIANEXT M FLEX IN 4 LINK

Configure model	
Model name	ARIANEXT M FLEX IN 4 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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

### 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	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
P <sub>rated</sub>	5.21 kW	4.64 kW
SCOP	4.55	3.25
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.61 kW	4.10 kW
COP T <sub>j</sub> = -7°C	3.30	2.29
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.80 kW	2.50 kW
COP T <sub>j</sub> = +2°C	4.48	3.27
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.82 kW	1.62 kW
COP T <sub>j</sub> = +7°C	5.44	3.69
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.51 kW
COP T <sub>j</sub> = 12°C	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.10 kW	0.70 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh

# Model: AEROTOP MONO BUILT-IN 04M-CRX

Configure model	
Model name	AEROTOP MONO BUILT-IN 04M-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	3.50 kW	2.96 kW
El input	0.69 kW	1.05 kW
COP	5.11	2.82

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.21 kW	4.64 kW
$\eta_s$	191 %	135 %
$P_{rated}$	5.21 kW	4.64 kW
SCOP	4.55	3.25
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	4.61 kW	4.10 kW
$COP T_j = -7^{\circ}C$	3.30	2.29
$P_{dh} T_j = +2^{\circ}C$	2.80 kW	2.50 kW
$COP T_j = +2^{\circ}C$	4.48	3.27
$P_{dh} T_j = +7^{\circ}C$	1.82 kW	1.62 kW
$COP T_j = +7^{\circ}C$	5.44	3.69
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.51 kW
$COP T_j = 12^{\circ}C$	7.21	5.29

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

Pdh Tj = Tbiv	4.61 kW	4.10 kW
COP Tj = Tbiv	3.30	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.07 kW	3.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.10 kW	0.70 kW
Annual energy consumption Qhe	2366 kWh	2949 kWh