

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

Summary of	NIMBUS 50 M - ARIANEXT 50 M - AEROTOP MONO 05X - ENERGION M 5		Reg. No.	ICIM-PDC-000001
Certificate Holder				
Name	Ariston Thermo Group			
Address	Viale Aristide Merloni 45		Zip	I-60044
City	Fabriano (AN)		Country	Italy
Certification Body	ICIM S.p.A.			
Name of testing laboratory	-Transition Rules-			
Subtype title	NIMBUS 50 M - ARIANEXT 50 M - AEROTOP MONO 05X - ENERGION M 5			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410a			
Mass Of Refrigerant	1.88 kg			
Certification Date	19.12.2017			

# Model: AEROTOP MONO 05M-RX 1Z

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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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	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	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	0.00 kW	0.00 kW
Annual energy consumption Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: AEROTOP MONO 05M-RX 2Z

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	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	0.00 kW	0.00 kW
Annual energy consumption Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: AEROTOP MONO 05M-RXL

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
η <sub>s</sub>	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: AEROTOP MONO 05M-X 1Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: AEROTOP MONO 05M-X 2Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT LITE 50 M LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT LITE 50 M

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ARIANEXT PLUS 50 M 2Z H LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M 2Z H

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M 2Z LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M 2Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M H LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M H

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ARIANEXT PLUS 50 M

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: NIMBUS PLUS 50 M 2Z H NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: NIMBUS PLUS 50 M 2Z NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: NIMBUS PLUS 50 M H NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: NIMBUS PLUS 50 M NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: NIMBUS POCKET 50 M NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: AEROTOP MONO 05M-CRX 1Z

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: AEROTOP MONO 05M-CRX 2Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: ARIANEXT COMPACT 50 M 2Z LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: ARIANEXT COMPACT 50 M LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
$P_{designh}$	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
$P_{rated}$	4.40 kW	3.80 kW
SCOP	4.47	3.92
$T_{biv}$	-7 °C	-7 °C
TOL	-10 °C	-10 °C
$P_{dh} T_j = -7^{\circ}C$	5.13 kW	5.19 kW
$COP T_j = -7^{\circ}C$	3.15	2.26
$P_{dh} T_j = +2^{\circ}C$	3.15 kW	3.17 kW
$COP T_j = +2^{\circ}C$	4.42	3.32
$P_{dh} T_j = +7^{\circ}C$	2.01 kW	2.14 kW
$COP T_j = +7^{\circ}C$	5.28	3.91
$P_{dh} T_j = 12^{\circ}C$	1.54 kW	1.50 kW
$COP T_j = 12^{\circ}C$	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: ARIANEXT FLEX 50 M 2Z H LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °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

# Model: ARIANEXT FLEX 50 M 2Z LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: ARIANEXT FLEX 50 M H LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: ARIANEXT FLEX 50 M LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: NIMBUS COMPACT 50 M 2Z NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: NIMBUS COMPACT 50 M NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
η <sub>s</sub>	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: NIMBUS FLEX 50 M 2Z H NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: NIMBUS FLEX 50 M 2Z NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: NIMBUS FLEX 50 M H NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
η <sub>s</sub>	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

## Model: NIMBUS FLEX 50 M NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate



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

<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

# Model: ARIANEXT COMPACT 50 M 2Z

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<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 50 M

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<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 50 M 2Z H

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<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 50 M 2Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<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 50 M H

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate

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

<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 50 M

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Domestic Hot Water (DHW)

### Average Climate



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

<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 5

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
η <sub>s</sub>	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ENERGION M PLUS 5 2Z

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ENERGION M COMPACT 5

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate

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

<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

# Model: ENERGION M COMPACT 5 2Z

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate

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

<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

## Model: ENERGION M FLEX 180 e

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
η <sub>s</sub>	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate

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

<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

# Model: ENERGION M FLEX 5 2Z 180 e

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °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

## Model: ENERGION M LIGHT 5

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: ENERGION M HYBRIDall 5

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.95 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ATAG p ENERGION M HYBRIDzone 5

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.95 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ATAG i ENERGION M HYBRIDzone 5

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 <sub>he</sub>	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.95 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: NIMBUS M HYBRID 5 NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: NIMBUS M HYBRID FLEX 5 NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate

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

<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

# Model: NIMBUS M HYBRID UNIVERSAL 5 NET

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Pdesignh	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
Prated	4.20 kW	3.90 kW
SCOP	3.85	3.02
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ARIANEXT M HYBRID 5 LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: ARIANEXT M HYBRID FLEX 5 LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Domestic Hot Water (DHW)

## 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

## 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	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	246 l

## Colder Climate

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

<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

# Model: ARIANEXT M HYBRID UNIVERSAL 5 LINK

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: AEROTOP HYBRID MINI EVO 05X

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>



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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: AEROTOP HYBRID MINI EVO 5

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW



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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

# Model: AEROTOP HYBRID UNIVERSAL 5

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.77 kW	0.86 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Warmer 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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

P <sub>designh</sub>	3.47 kW	2.98 kW
$\eta_s$	232 %	151 %
P <sub>rated</sub>	4.50 kW	3.17 kW
SCOP	5.88	3.84
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.47 kW	2.98 kW
COP T <sub>j</sub> = +2°C	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.23 kW	1.92 kW
COP T <sub>j</sub> = +7°C	5.15	3.00
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.60 kW	1.59 kW
COP T <sub>j</sub> = 12°C	7.80	5.86
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.47 kW	2.98 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.88	2.33
P <sub>dh</sub> T <sub>j</sub> = TOL	3.47 kW	2.98 kW
COP T <sub>j</sub> = TOL	3.88	2.33
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W

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

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 Qhe	790 kWh	1035 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	59 dB(A)	59 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
P <sub>designh</sub>	8.08 kW	8.58 kW
$\eta_s$	151 %	118 %
P <sub>rated</sub>	4.20 kW	3.90 kW
SCOP	3.85	3.02
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.89 kW	5.19 kW

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

COP Tj = -7°C	3.46	2.71
Pdh Tj = +2°C	2.98 kW	3.17 kW
COP Tj = +2°C	5.11	3.89
Pdh Tj = +7°C	1.95 kW	2.03 kW
COP Tj = +7°C	6.93	4.95
Pdh Tj = 12°C	1.61 kW	1.60 kW
COP Tj = 12°C	7.88	6.35
Pdh Tj = Tbiv	4.89 kW	5.19 kW
COP Tj = Tbiv	3.46	2.71
Pdh Tj = TOL	3.69 kW	3.18 kW
COP Tj = TOL	2.29	1.54
Cdh	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	3.96 kW	4.00 kW
Annual energy consumption Qhe	5175 kWh	7004 kWh

## Model: NIMBUS M FLEX IN 5 NET

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate



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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.80 kW	0.90 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

## Model: ARIANEXT M FLEX IN 5 LINK

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.80 kW	0.90 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh

# Model: AEROTOP MONO BUILT-IN 05M-CRX

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.40 kW	3.80 kW
El input	0.88 kW	1.32 kW
COP	5.02	2.88
Indoor water flow rate	0.79 m <sup>3</sup> /h	0.42 m <sup>3</sup> /h

### EN 14511-4

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

## Average Climate

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

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.80 kW	5.86 kW
$\eta_s$	176 %	130 %
P <sub>rated</sub>	4.40 kW	3.80 kW
SCOP	4.47	3.92
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.13 kW	5.19 kW
COP T <sub>j</sub> = -7°C	3.15	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.15 kW	3.17 kW
COP T <sub>j</sub> = +2°C	4.42	3.32
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.01 kW	2.14 kW
COP T <sub>j</sub> = +7°C	5.28	3.91
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.54 kW	1.50 kW
COP T <sub>j</sub> = 12°C	7.28	5.40

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

Pdh Tj = Tbiv	5.13 kW	5.19 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL	5.03 kW	5.00 kW
COP Tj = TOL	2.82	2.14
Cdh	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	0.80 kW	0.90 kW
Annual energy consumption Qhe	2678 kWh	3646 kWh