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#### **Login**

Summary of	NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGION M 11	Reg. No.	ICIM-PDC- 000001	
Certificate Holder	Certificate Holder			
Name	Ariston Thermo Group			
Address	Viale Aristide Merloni 45	Zip	I-60044	
City	Fabriano (AN)	Country	Italy	
Certification Body	ICIM S.p.A.			
Subtype title	NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGI	ON M 11		
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	3.9 kg			
Certification Date	19.12.2017			



# **Model: AEROTOP MONO 11M-R**

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

General Data		
Power supply	3x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

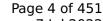
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



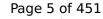


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

rature Medium temperature
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17.24 kW





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$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7^{\circ}$ C	11.00 kW	10.44 kW	
COP Tj = -7°C	3.46	2.73	
Pdh Tj = +2°C	6.70 kW	6.35 kW	
COP Tj = +2°C	3.46	3.83	
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	

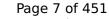


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C       3.19       2.31         Pdh Tj = +2°C       6.77 kW       6.23 kW         COP Tj = +2°C       4.61       3.42         Pdh Tj = +7°C       4.35 kW       4.00 kW         COP Tj = +7°C       6.16       3.80         Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       12.05 kW       11.47 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       0.90       0.90         WTOL       60 °C       60 °C         Poff       20 W       20 W         PSB       20 W       20 W         PCK       20 W       20 W         Supplementary Heater: Type of energy input       Electricity       Electricity		T	
COP Tj = +2°C	$COP Tj = -7^{\circ}C$	3.19	2.31
Pdh Tj = +7°C       4.35 kW       4.00 kW         COP Tj = +7°C       6.16       3.80         Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +7°C	$COPTj = +2^{\circ}C$	4.61	3.42
Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = 12°C	$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	8.45	5.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	3.19	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
WTOL 60 °C 60 °C  Poff 20 W 20 W  PTO 20 W 20 W  PSB 20 W 20 W  PCK 20 W 20 W	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Poff       20 W       20 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       20 W       20 W	Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
PTO 20 W 20 W 20 W PSB 20 W 20 W 20 W	WTOL	60 °C	60 °C
PSB 20 W 20 W PCK 20 W	Poff	20 W	20 W
PCK 20 W 20 W	РТО	20 W	20 W
	PSB	20 W	20 W
Supplementary Heater: Type of energy input Electricity Electricity	PCK	20 W	20 W
	Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP 0.51 kW 0.08 kW	Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe 5411 kWh 7070 kWh	Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: AEROTOP MONO 11M-RL**

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

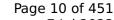
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

Low temperature	Medium temperature
7.96 kW	7.45 kW
245 %	161 %
7.96 kW	7.45 kW
6.21	4.10
2 °C	2 °C
2 °C	2 °C
7.96 kW	7.45 kW
4.07	2.38
5.36 kW	5.05 kW
5.51	3.47
4.40 kW	4.15 kW
8.35	5.86
7.96 kW	7.45 kW
4.07	2.38
	245 % 7.96 kW 6.21 2 °C 2 °C 7.96 kW 4.07 5.36 kW 5.51 4.40 kW 8.35 7.96 kW





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

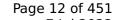
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
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	<u> </u>	
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	Low temperature  12.56 kW  189 %  12.56 kW  4.80  -7 °C  -10 °C	





This information was generated by the HP KETMARK database on 7 Jul 2022			
3.19	2.31		
6.77 kW	6.23 kW		
4.61	3.42		
4.35 kW	4.00 kW		
6.16	3.80		
4.41 kW	4.07 kW		
8.45	5.63		
11.11 kW	10.22 kW		
3.19	2.31		
12.05 kW	11.47 kW		
2.80	2.05		
0.90	0.90		
60 °C	60 °C		
20 W	20 W		
20 W	20 W		
20 W	20 W		
20 W	20 W		
Electricity	Electricity		
0.51 kW	0.08 kW		
5411 kWh	7070 kWh		
	6.77 kW  4.61  4.35 kW  6.16  4.41 kW  8.45  11.11 kW  3.19  12.05 kW  2.80  0.90  60 °C  20 W  20 W  20 W  Electricity  0.51 kW		



# **Model: ARIANEXT LITE 110 M-T LINK**

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

General Data		
Power supply 3x230V 50Hz		

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

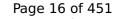
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

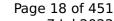
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

e Medium temperature
17.24 kW
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This information was generated by the HP KEYMARK database on 7 Jul 20			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.00 kW	10.44 kW	
$COPTj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW	
COP Tj = +2°C	3.46	3.83	
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
PTO	20 W	20 W	



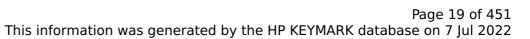


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

### Average Climate

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C	





This information was gene	T	,
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: ARIANEXT LITE 110 M-T**

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

General Data		
Power supply 3x230V 50Hz		

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow		
Complete power supply failure		
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825				
Low temperature   Medium tempe				
Pdesignh	7.96 kW	7.45 kW		
$\eta_{s}$	245 %	161 %		
Prated	7.96 kW	7.45 kW		
SCOP	6.21	4.10		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	7.96 kW	7.45 kW		
COP Tj = +2°C	4.07	2.38		
Pdh Tj = +7°C	5.36 kW	5.05 kW		
COP Tj = +7°C	5.51	3.47		
Pdh Tj = 12°C	4.40 kW	4.15 kW		
COP Tj = 12°C	8.35	5.86		
Pdh Tj = Tbiv	7.96 kW	7.45 kW		
COP Tj = Tbiv	4.07	2.38		



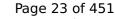


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

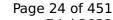
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W



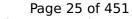


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





	This information was generated by the HF RETMARK database on 7 Jul 2022			
COP Tj = -7°C	3.19	2.31		
Pdh Tj = +2°C	6.77 kW	6.23 kW		
COP Tj = +2°C	4.61	3.42		
Pdh Tj = +7°C	4.35 kW	4.00 kW		
$COPTj = +7^{\circ}C$	6.16	3.80		
Pdh Tj = 12°C	4.41 kW	4.07 kW		
COP Tj = 12°C	8.45	5.63		
Pdh Tj = Tbiv	11.11 kW	10.22 kW		
COP Tj = Tbiv	3.19	2.31		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90		
WTOL	60 °C	60 °C		
Poff	20 W	20 W		
РТО	20 W	20 W		
PSB	20 W	20 W		
PCK	20 W	20 W		
Supplementary Heater: Type of energy input	Electricity	Electricity		
Supplementary Heater: PSUP	0.51 kW	0.08 kW		
Annual energy consumption Qhe	5411 kWh	7070 kWh		



# **Model: ARIANEXT PLUS 110 M-T LINK**

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

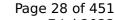
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

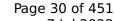
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





<u> </u>	-	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 31 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	rated by the Hr KLIN	IANK database on 7 Jul 202.
$COP Tj = -7^{\circ}C$	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
t	·	

# **Model: ARIANEXT PLUS 110 M-T**

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

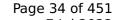
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



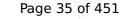


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

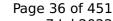
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C       3.19       2.31         Pdh Tj = +2°C       6.77 kW       6.23 kW         COP Tj = +2°C       4.61       3.42         Pdh Tj = +7°C       4.35 kW       4.00 kW         COP Tj = +7°C       6.16       3.80         Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       12.05 kW       11.47 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       2.80       2.05         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       0.90       0.90         WTOL       60 °C       60 °C         Poff       20 W       20 W         PTO       20 W       20 W	This intermetion was gene		ARR database on 7 Jul 2022
COP Tj = +2°C	COP Tj = -7°C	3.19	2.31
Pdh Tj = +7°C       4.35 kW       4.00 kW         COP Tj = +7°C       6.16       3.80         Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +7°C  COP Tj = 12°C  4.41 kW  4.07 kW  COP Tj = 12°C  8.45  5.63  Pdh Tj = Tbiv  11.11 kW  10.22 kW  COP Tj = Tbiv  3.19  2.31  Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  12.05 kW  11.47 kW  COP Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  2.80  2.05  Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  0.90  WTOL  60 °C  60 °C  Poff  20 W  20 W	COP Tj = +2°C	4.61	3.42
Pdh Tj = 12°C       4.41 kW       4.07 kW         COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = 12°C       8.45       5.63         Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = Tbiv       11.11 kW       10.22 kW         COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = Tbiv       3.19       2.31         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	8.45	5.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh $12.05 \text{ kW}$ $11.47 \text{ kW}$ COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	3.19	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
WTOL       60 °C       60 °C         Poff       20 W       20 W         PTO       20 W       20 W	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Poff 20 W 20 W PTO 20 W	Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
PTO 20 W 20 W	WTOL	60 °C	60 °C
	Poff	20 W	20 W
	РТО	20 W	20 W
PSB 20 W 20 W	PSB	20 W	20 W
PCK 20 W 20 W	PCK	20 W	20 W
Supplementary Heater: Type of energy input Electricity Electricity	Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP 0.51 kW 0.08 kW	Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe 5411 kWh 7070 kWh	Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: NIMBUS PLUS 110 M-T NET**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

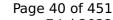
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



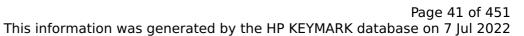


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

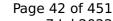
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





This information was generated by the HP KEYMARK database on 7 Jul 20				
$\eta_{s}$	150 %	113 %		
Prated	18.17 kW	17.24 kW		
SCOP	3.82	2.91		
Tbiv	-7 °C	-7 °C		
TOL	-20 °C	-20 °C		
Pdh Tj = -7°C	11.00 kW	10.44 kW		
$COPTj = -7^{\circ}C$	3.46	2.73		
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW		
COP Tj = +2°C	3.46	3.83		
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW		
$COPTj = +7^{\circ}C$	6.60	5.06		
Pdh Tj = 12°C	4.41 kW	4.27 kW		
COP Tj = 12°C	8.45	7.06		
Pdh Tj = Tbiv	11.00 kW	10.44 kW		
COP Tj = Tbiv	3.46	2.73		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90		
WTOL	60 °C	60 °C		
Poff	20 W	20 W		
PTO	20 W	20 W		



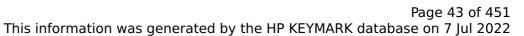


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

N 14825	
Low temperature	Medium temperature
12.56 kW	11.55 kW
189 %	132 %
12.56 kW	11.55 kW
4.80	3.38
-7 °C	-7 °C
-10 °C	-10 °C
11.11 kW	10.22 kW
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C





This information was gene	racea by the fit RETI	IARK database on 7 Jul 202.
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
-	•	



# **Model: NIMBUS POCKET 110 M-T NET**

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

	General Data	
Power supply	3x230V 50Hz	

# Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

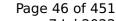
	EN 14511-2	
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

	EN 14825	
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

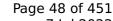
	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

e Medium temperature
17.24 kW
_





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





	This information was generated by the HF RETMARK database on 7 Jul 2022			
COP Tj = -7°C	3.19	2.31		
Pdh Tj = +2°C	6.77 kW	6.23 kW		
COP Tj = +2°C	4.61	3.42		
Pdh Tj = +7°C	4.35 kW	4.00 kW		
$COPTj = +7^{\circ}C$	6.16	3.80		
Pdh Tj = 12°C	4.41 kW	4.07 kW		
COP Tj = 12°C	8.45	5.63		
Pdh Tj = Tbiv	11.11 kW	10.22 kW		
COP Tj = Tbiv	3.19	2.31		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90		
WTOL	60 °C	60 °C		
Poff	20 W	20 W		
РТО	20 W	20 W		
PSB	20 W	20 W		
PCK	20 W	20 W		
Supplementary Heater: Type of energy input	Electricity	Electricity		
Supplementary Heater: PSUP	0.51 kW	0.08 kW		
Annual energy consumption Qhe	5411 kWh	7070 kWh		



# **Model: AEROTOP MONO 11M-CR**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

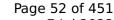
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



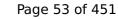


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

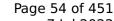
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





This information was ger	lerated by the fir KETI	MARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



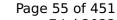


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
ηs	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
ГЬіν	-7 °C	-7 °C
ГОL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	

# Domestic Hot Water (DHW)



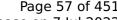
### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	

# Average Climate





# $$\operatorname{\textit{Page}}\xspace$ 57 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# **Model: ARIANEXT COMPACT 110 M-T LINK**

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

General Data		
Power supply	3x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

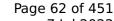
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

e Medium temperature
17.24 kW
_





in Remining database on 7 Jul 20.
113 %
17.24 kW
2.91
-7 °C
-20 °C
10.44 kW
2.73
6.35 kW
3.83
4.19 kW
5.06
4.27 kW
7.06
10.44 kW
2.73
4.29 kW
0.92
0.90
60 °C
20 W
20 W



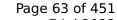


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# Domestic Hot Water (DHW)



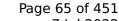
### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	

# **Average Climate**





EN 16147	
Declared load profile	XL
Efficiency ηDHW	106 %
СОР	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 I



# **Model: ARIANEXT FLEX 110 M-T - 300 LINK**

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

General Data		
Power supply	3x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825			
Low temperature Medium temp			
Pdesignh	7.96 kW	7.45 kW	
$\eta_{s}$	245 %	161 %	
Prated	7.96 kW	7.45 kW	
SCOP	6.21	4.10	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	7.96 kW	7.45 kW	
COP Tj = +2°C	4.07	2.38	
Pdh Tj = +7°C	5.36 kW	5.05 kW	
COP Tj = +7°C	5.51	3.47	
Pdh Tj = 12°C	4.40 kW	4.15 kW	
COP Tj = 12°C	8.35	5.86	
Pdh Tj = Tbiv	7.96 kW	7.45 kW	
COP Tj = Tbiv	4.07	2.38	



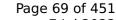


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

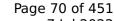
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825				
Low temperature Medium tempera				
Pdesignh	18.17 kW	17.24 kW		





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



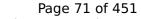


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = $-7$ °C	11.11 kW	10.22 kW





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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# Domestic Hot Water (DHW)



### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430	

### Colder Climate

EN 16147	
Declared load profile	XXL
Efficiency ηDHW	97 %
СОР	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 I

# Average Climate



# $$\operatorname{Page}\ 73$$ of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	122 %	
СОР	3.06	
Heating up time	01:52 h:min	
Standby power input	53.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	434	



# **Model: ARIANEXT FLEX 110 M-T LINK**

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

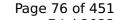
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



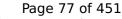


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

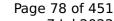
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
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<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
Low tempe		Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)

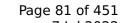


#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 l	

# **Model: NIMBUS COMPACT 110 M-T NET**

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

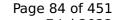
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



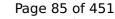


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

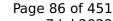
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	

### Domestic Hot Water (DHW)

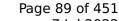


#### Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	111 %
СОР	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248

#### Colder Climate

EN 16147	
Declared load profile	XL
Declared load profile	AL .
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I





EN 16147	
Declared load profile	XL
Efficiency ηDHW	106 %
СОР	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 I

# Model: NIMBUS FLEX 110 M-T - 300 NET

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

General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

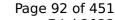
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825				
Low temperature Medium tempe				
Pdesignh	7.96 kW	7.45 kW		
$\eta_{s}$	245 %	161 %		
Prated	7.96 kW	7.45 kW		
SCOP	6.21	4.10		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	7.96 kW	7.45 kW		
COP Tj = +2°C	4.07	2.38		
Pdh Tj = +7°C	5.36 kW	5.05 kW		
COP Tj = +7°C	5.51	3.47		
Pdh Tj = 12°C	4.40 kW	4.15 kW		
COP Tj = 12°C	8.35	5.86		
Pdh Tj = Tbiv	7.96 kW	7.45 kW		
COP Tj = Tbiv	4.07	2.38		



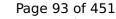


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

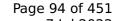
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W

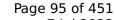




PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C	





	<u> </u>	, aatababe 011 7 jai 2021
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	·	

### Domestic Hot Water (DHW)

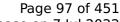


#### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430 I	

#### Colder Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	97 %	
СОР	2.43	
Heating up time	02:15 h:min	
Standby power input	63.0 W	
Reference hot water temperature	53.4 °C	
Mixed water at 40°C	422 I	





EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	122 %	
СОР	3.06	
Heating up time	01:52 h:min	
Standby power input	53.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	434 I	



# **Model: NIMBUS FLEX 110 M-T NET**

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

General Data		
Power supply 3x230V 50Hz		

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

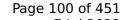
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

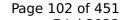
EN 14825		
temperature		
V		



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<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)

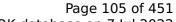


#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# **Model: ARIANEXT COMPACT 110 M-T**

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

	General Data	
Power supply	3x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2				
	Low temperature	Medium temperature		
Heat output	10.40 kW	9.45 kW		
El input	2.08 kW	3.15 kW		
СОР	5.00	3.00		

### **Average Climate**



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

EN 14825				
	Low temperature	Medium temperature		
Pdesignh	12.56 kW	11.55 kW		
$\eta_{s}$	189 %	132 %		
Prated	12.56 kW	11.55 kW		
SCOP	4.80	3.38		
Tbiv	-7 °C	-7 °C		
TOL	-10 °C	-10 °C		
Pdh Tj = -7°C	11.11 kW	10.22 kW		
COP Tj = -7°C	3.19	2.31		
Pdh Tj = +2°C	6.77 kW	6.23 kW		
COP Tj = +2°C	4.61	3.42		
Pdh Tj = +7°C	4.35 kW	4.00 kW		
COP Tj = +7°C	6.16	3.80		
Pdh Tj = 12°C	4.41 kW	4.07 kW		
COP Tj = 12°C	8.45	5.63		



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

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

Domestic Hot Water (DHW)



52.5 °C

247 I



Reference hot water temperature

Mixed water at 40°C

# **EN 16147** Declared load profile 127 % Efficiency ηDHW COP 3.01 00:47 h:min Heating up time Standby power input 38.0 W

# **Model: ARIANEXT FLEX 110 M-T - 300**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

## **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



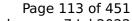
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#### This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Domestic Hot Water (DHW)

Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	131 %	
СОР	3.10	
Heating up time	01:52 h:min	
Standby power input	61.0 W	
Reference hot water temperature	54.4 °C	
Mixed water at 40°C	434	

# **Model: ARIANEXT FLEX 110 M-T**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
Low temperature Medium temperature		Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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

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

Domestic Hot Water (DHW)

Average Climate



EN 16147	
Declared load profile	L
Efficiency ηDHW	127 %
СОР	3.01
Heating up time	00:47 h:min
Standby power input	38.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	247

# **Model: AEROTOP MONO 11M-RX**

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

General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

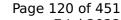
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

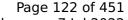
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825				
Low temperature Medium temperat				
Pdesignh	18.17 kW	17.24 kW		



# Page 121 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

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$\eta_s$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.00 kW	10.44 kW	
COP Tj = -7°C	3.46	2.73	
Pdh Tj = +2°C	6.70 kW	6.35 kW	
$COP Tj = +2^{\circ}C$	3.46	3.83	
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW	
$COP Tj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	





**PSB** 

This information was generated by the HP KEYMARK database on 7 Jul 2022			
	20 W	20 W	
	20 W	20 W	
er: Type of energy input	Electricity	Electricity	

# **PCK** Supplementary Heater 6.00 kW 6.00 kW Supplementary Heater: PSUP Annual energy consumption Qhe 11736 kWh 14608 kWh

# **Average Climate**

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 123 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
РСК	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: AEROTOP MONO 11M-RXL**

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

General Data		
Power supply 1x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

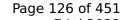
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

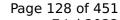
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: ARIANEXT LITE 110 M LINK**

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

General Data		
Power supply 1x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

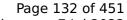
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
$COP Tj = +7^{\circ}C$	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38
	·	





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

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

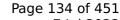
EN 14825		
temperature		
V		



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

<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: ARIANEXT LITE 110 M**

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

General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

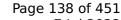
EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38
	1	



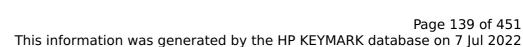


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

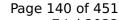
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





$\eta_{S}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
COP Tj = +7°C	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: ARIANEXT PLUS 110 M LINK**

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

General Data		
Power supply 1x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

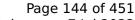
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

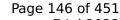
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	,	



#### Page 145 of 451

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

This information was ger	lerated by the fir KETI	MARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 147 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	erated by the fir KLTI	IANK database on 7 Jul 202.
$COP Tj = -7^{\circ}C$	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
t		



# **Model: ARIANEXT PLUS 110 M**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

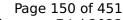
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



# Page 151 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was generated by the HP KEYMARK database on 7 Jul 202			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW	
$COPTj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW	
$COP Tj = +2^{\circ}C$	3.46	3.83	
Pdh Tj = +7°C	4.39 kW	4.19 kW	
$COP Tj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 153 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: NIMBUS PLUS 110 M NET**

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

General Data		
Power supply 1x230V 50Hz		

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

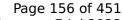
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38
		•





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

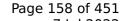
e Medium temperature
17.24 kW
_



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

This information was gene	craced by the fit KETI	IANN database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
1		





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C	



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

	<u> </u>	<u> </u>
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
РСК	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: NIMBUS POCKET 110 M NET**

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

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

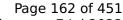
EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

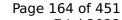
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

<u> </u>	,	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
The state of the s	•	

# **Model: AEROTOP MONO 11M-CRX**

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

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

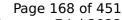
EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



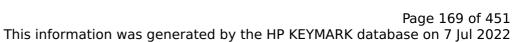


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

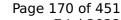
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825			
Low temperature Medium temperature			
Pdesignh	18.17 kW	17.24 kW	





9		in thick database on 7 jul 202.
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
$COP Tj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)



### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	

### Average Climate



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# **Model: ARIANEXT COMPACT 110 M LINK**

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

General Data		
Power supply 1x230V 50Hz		

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

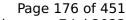
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

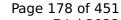
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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This information was generated by the HP KEYMARK database on 7 Jul 202			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW	
$COPTj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW	
$COPTj = +2^{\circ}C$	3.46	3.83	
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW	
$COP Tj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	



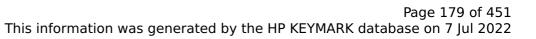


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)



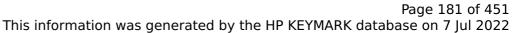
### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	

### Average Climate





## **EN 16147** Declared load profile XL Efficiency ηDHW 106 % COP 2.56 01:28 h:min Heating up time Standby power input 52.0 W 53.6 °C Reference hot water temperature Mixed water at 40°C 251 I

# **Model: ARIANEXT FLEX 110 M LINK**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

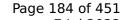
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



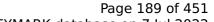
### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	

## Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 l	

# **Model: ARIANEXT FLEX 110 M - 300 LINK**

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

General Data			
Power supply 1x230V 50Hz			

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operacing range outdoor exchanger/indoor exchanger lower inflictioner infliction	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

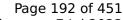
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

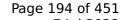
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	·	



# Page 193 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was generated by the HP KEYMARK database on 7 Jul 2			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.00 kW	10.44 kW	
$COPTj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = +2°C	6.70 kW	6.35 kW	
COP Tj = +2°C	3.46	3.83	
Pdh Tj = +7°C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	



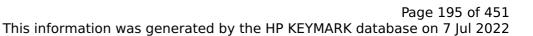


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430 I	

### Colder Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	97 %	
СОР	2.43	
Heating up time	02:15 h:min	
Standby power input	63.0 W	
Reference hot water temperature	53.4 °C	
Mixed water at 40°C	422 I	

## Average Climate





EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	122 %	
СОР	3.06	
Heating up time	01:52 h:min	
Standby power input	53.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	434	

# **Model: NIMBUS COMPACT 110 M NET**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

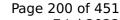
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



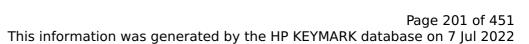


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

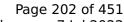
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	1	





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
	20 W	20 W





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

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



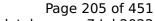
### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I

## Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# **Model: NIMBUS FLEX 110 M NET**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

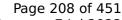
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



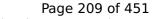


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

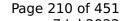
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



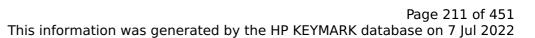


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

### Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I

## Average Climate



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 l	

# Model: NIMBUS FLEX 110 M - 300 NET

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

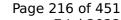
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

	EN 14825	
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38
		•





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

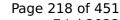
Medium temperature
17.24 kW
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### This information was generated by the HP KEYMARK database on 7 Jul 2022

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$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



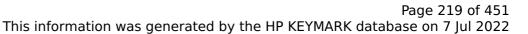


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	

## Domestic Hot Water (DHW)



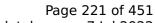
### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430	

### Colder Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	97 %	
СОР	2.43	
Heating up time	02:15 h:min	
Standby power input	63.0 W	
Reference hot water temperature	53.4 °C	
Mixed water at 40°C	422 I	

## Average Climate





EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	122 %	
СОР	3.06	
Heating up time	01:52 h:min	
Standby power input	53.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	434	



## **Model: ARIANEXT COMPACT 110 M**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow		
Complete power supply failure		
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



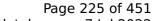
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#### This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Domestic Hot Water (DHW)

Average Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	127 %	
СОР	3.01	
Heating up time	00:47 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	247	

## **Model: ARIANEXT FLEX 110 M**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

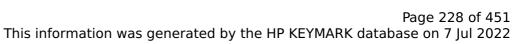
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63





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

Domestic Hot Water (DHW)

Average Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	127 %	
СОР	3.01	
Heating up time	00:47 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	247	



## **Model: ARIANEXT FLEX 110 M - 300**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



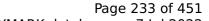
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#### This information was generated by the HP KEYMARK database on 7 Jul 2022

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

Domestic Hot Water (DHW)

Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	131 %	
СОР	3.10	
Heating up time	01:52 h:min	
Standby power input	61.0 W	
Reference hot water temperature	54.4 °C	
Mixed water at 40°C	434	

## **Model: ENERGION M PLUS 11**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

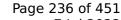
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825				
Low temperature Medium temperatu				
Pdesignh	7.96 kW	7.45 kW		
$\eta_{s}$	245 %	161 %		
Prated	7.96 kW	7.45 kW		
SCOP	6.21	4.10		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	7.96 kW	7.45 kW		
COP Tj = +2°C	4.07	2.38		
Pdh Tj = +7°C	5.36 kW	5.05 kW		
COP Tj = +7°C	5.51	3.47		
Pdh Tj = 12°C	4.40 kW	4.15 kW		
COP Tj = 12°C	8.35	5.86		
Pdh Tj = Tbiv	7.96 kW	7.45 kW		
COP Tj = Tbiv	4.07	2.38		





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

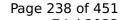
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	1	





This information was ger	ierated by the HP KETI	MARK database on 7 Jul 202
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





	1	IANK database on 7 jul 202
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



## **Model: ENERGION M PLUS 11 T**

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

General Data		
Power supply	3x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

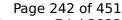
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

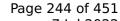
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





$\eta_{S}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
COP Tj = +7°C	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

N 14825	EN 14825		
Low temperature	Medium temperature		
12.56 kW	11.55 kW		
189 %	132 %		
12.56 kW	11.55 kW		
4.80	3.38		
-7 °C	-7 °C		
-10 °C	-10 °C		
11.11 kW	10.22 kW		
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C		



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

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## **Model: ENERGION M LIGHT 11**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

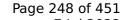
EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



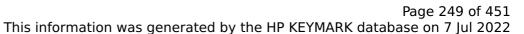


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

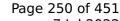
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

e Medium temperature
17.24 kW
_





$\eta_{S}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
COP Tj = +7°C	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## **Average Climate**

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

EN 14825			
	Low temperature	e Medium temperature	
Pdesignh	12.56 kW	11.55 kW	
$\eta_{S}$	189 %	132 %	
Prated	12.56 kW	11.55 kW	
SCOP	4.80	3.38	
Tbiv	-7 °C	-7 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	11.11 kW	10.22 kW	



# Page 251 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	racea by the fit RETI-	ANN database on 7 Jul 2022
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



## **Model: ENERGION M LIGHT 11 T**

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

General Data		
Power supply 3x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow		
Complete power supply failure		
Defrost test	passed	

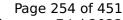
EN 14511-2				
	Low temperature	Medium temperature		
Heat output	10.40 kW	9.45 kW		
El input	2.08 kW	3.15 kW		
СОР	5.00	3.00		

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



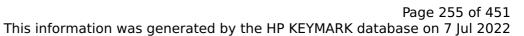


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

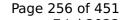
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





This information was ger	ierated by the HP KET	MARK database on 7 Jul 202
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
$COP Tj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C	



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

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# Model: ENERGION M FLEX 11 180 e

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

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operacing range outdoor exchanger/indoor exchanger lower inflictioner infliction	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

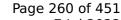
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

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

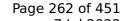
erature Medium temperature
17.24 kW
-



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

mis information was gen	erated by the HP KETI	MARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
COP Tj = +7°C	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W

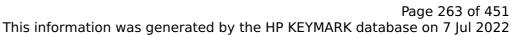




PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	

### Domestic Hot Water (DHW)

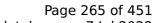


#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147	
Declared lead profile	XL
Declared load profile	AL .
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# Model: ENERGION M FLEX 11 T 180 e

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

General Data		
Power supply 3x230V 50Hz		

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

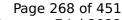
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825				
Low temperature Medium tempera				
Pdesignh	7.96 kW	7.45 kW		
$\eta_{s}$	245 %	161 %		
Prated	7.96 kW	7.45 kW		
SCOP	6.21	4.10		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	7.96 kW	7.45 kW		
COP Tj = +2°C	4.07	2.38		
Pdh Tj = +7°C	5.36 kW	5.05 kW		
COP Tj = +7°C	5.51	3.47		
Pdh Tj = 12°C	4.40 kW	4.15 kW		
COP Tj = 12°C	8.35	5.86		
Pdh Tj = Tbiv	7.96 kW	7.45 kW		
COP Tj = Tbiv	4.07	2.38		





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

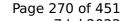
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	·	





This information was generated by the HP KEYMARK database on 7		
150 %	113 %	
18.17 kW	17.24 kW	
3.82	2.91	
-7 °C	-7 °C	
-20 °C	-20 °C	
11.00 kW	10.44 kW	
3.46	2.73	
6.70 kW	6.35 kW	
3.46	3.83	
4.39 kW	4.19 kW	
6.60	5.06	
4.41 kW	4.27 kW	
8.45	7.06	
11.00 kW	10.44 kW	
3.46	2.73	
8.76 kW	4.29 kW	
2.20	0.92	
0.90	0.90	
60 °C	60 °C	
20 W	20 W	
20 W	20 W	
	150 %  18.17 kW  3.82  -7 °C  -20 °C  11.00 kW  3.46  6.70 kW  3.46  4.39 kW  6.60  4.41 kW  8.45  11.00 kW  3.46  8.76 kW  2.20  0.90  60 °C  20 W	





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)



#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 l	

# Model: ENERGION M FLEX 11 300 e

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

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

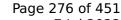
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



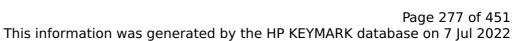


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

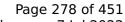
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





		IARK database on 7 Jul 202.
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





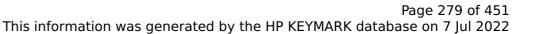
This information was generated by the HP KEYMARK database on 7 Jul 202		

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	2 10	
	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7$ °C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

### Domestic Hot Water (DHW)

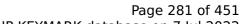


#### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430 I	

#### Colder Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	97 %	
СОР	2.43	
Heating up time	02:15 h:min	
Standby power input	63.0 W	
Reference hot water temperature	53.4 °C	
Mixed water at 40°C	422 I	





EN 16147	
Declared load profile	XXL
Efficiency ηDHW	122 %
СОР	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434

# Model: ENERGION M FLEX 11 T 300 e

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

General Data		
Power supply 3x230V 50Hz		

### Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

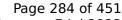
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

### Colder Climate

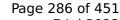
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
COP Tj = +7°C	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



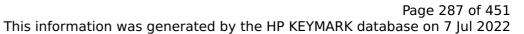


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825			
	Low temperature	Medium temperature	
Pdesignh	12.56 kW	11.55 kW	
$\eta_{s}$	189 %	132 %	
Prated	12.56 kW	11.55 kW	
SCOP	4.80	3.38	
Tbiv	-7 °C	-7 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	11.11 kW	10.22 kW	





This information was generated by the HP KETMARK database on 7 Jul 2022			
COP Tj = -7°C	3.19	2.31	
Pdh Tj = +2°C	6.77 kW	6.23 kW	
COP Tj = +2°C	4.61	3.42	
Pdh Tj = +7°C	4.35 kW	4.00 kW	
$COP Tj = +7^{\circ}C$	6.16	3.80	
Pdh Tj = 12°C	4.41 kW	4.07 kW	
COP Tj = 12°C	8.45	5.63	
Pdh Tj = Tbiv	11.11 kW	10.22 kW	
COP Tj = Tbiv	3.19	2.31	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	
PSB	20 W	20 W	
PCK	20 W	20 W	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	0.51 kW	0.08 kW	
Annual energy consumption Qhe	5411 kWh	7070 kWh	

### Domestic Hot Water (DHW)

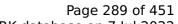


#### Warmer Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	01:34 h:min	
Standby power input	48.0 W	
Reference hot water temperature	54.2 °C	
Mixed water at 40°C	430	

#### Colder Climate

EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	97 %	
СОР	2.43	
Heating up time	02:15 h:min	
Standby power input	63.0 W	
Reference hot water temperature	53.4 °C	
Mixed water at 40°C	422 I	





EN 16147		
Declared load profile	XXL	
Efficiency ηDHW	122 %	
СОР	3.06	
Heating up time	01:52 h:min	
Standby power input	53.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	434	

## **Model: ENERGION M COMPACT 11**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

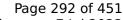
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



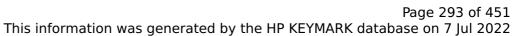


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





This information was generated by the HP KEYMARK database on 7 Jul 202.			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.00 kW	10.44 kW	
COP Tj = -7°C	3.46	2.73	
Pdh Tj = +2°C	6.70 kW	6.35 kW	
COP Tj = +2°C	3.46	3.83	
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	e Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	

## Average Climate





EN 16147	
Declared load profile	XL
Efficiency ηDHW	106 %
СОР	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l



## **Model: ENERGION M COMPACT 11 T**

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

General Data		
Power supply	3x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

#### Colder Climate

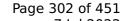
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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	· <b>,</b> -	TARK database on 7 Jul 202.
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



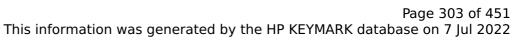


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



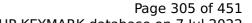
#### Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	111 %
СОР	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248

#### Colder Climate

EN 16147	
Declared lead profile	XL
Declared load profile	AL .
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I

## Average Climate





EN 16147	
Declared load profile	XL
Efficiency ηDHW	106 %
СОР	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

## **Model: ENERGION M HYBRIDall 11**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38



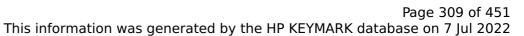


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

#### Colder Climate

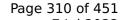
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

erature Medium temperature
17.24 kW
-





This information was generated by the HP KEYMARK database on 7 Jul 202			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.00 kW	10.44 kW	
$COP Tj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW	
COP Tj = +2°C	3.46	3.83	
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
PTO	20 W	20 W	





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



## **Model: ENERGION M HYBRIDall 11 T**

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

General Data		
Power supply	3x230V 50Hz	

## Heating

CEN heat pump

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

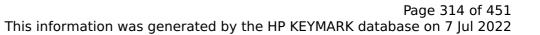
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

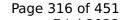
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
$COP Tj = +2^{\circ}C$	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



## Model: ATAG p ENERGION M HYBRIDzone 11

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

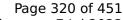
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

#### Colder Climate

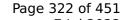
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	·	



# Page 321 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was get	icrated by the fir KET	MARK database on 7 Jul 202
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 323 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	rated by the Hr KLIN	IANK database on 7 Jul 202.
$COP Tj = -7^{\circ}C$	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Model: ATAG p ENERGION M HYBRIDzone 11 T

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

General Data		
Power supply	3x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

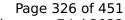
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

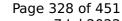
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

	•	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 329 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	racea by the fit REIT	ANN database on 7 Jul 2022
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



## **Model: ATAG i ENERGION M HYBRIDzone 11**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

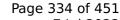
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



# Page 333 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was ger	ierated by the HP KET	MARK database on 7 Jul 202
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
$COP Tj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	e Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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This information was generated by the HP RETMARK database on 7 Jul 202		
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Model: ATAG i ENERGION M HYBRIDzone 11 T

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

General Data		
Power supply 3x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

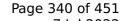
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	1	



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

	<u> </u>	
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 341 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was generated by the HP KETMARK database on 7 Jul 2022			
3.19	2.31		
6.77 kW	6.23 kW		
4.61	3.42		
4.35 kW	4.00 kW		
6.16	3.80		
4.41 kW	4.07 kW		
8.45	5.63		
11.11 kW	10.22 kW		
3.19	2.31		
12.05 kW	11.47 kW		
2.80	2.05		
0.90	0.90		
60 °C	60 °C		
20 W	20 W		
20 W	20 W		
20 W	20 W		
20 W	20 W		
Gas	Gas		
0.51 kW	0.08 kW		
5411 kWh	7070 kWh		
	3.19 6.77 kW 4.61 4.35 kW 6.16 4.41 kW 8.45 11.11 kW 3.19 12.05 kW 2.80 0.90 60 °C 20 W 20 W 20 W 20 W Gas 0.51 kW		

## **Model: NIMBUS M HYBRID 11 NET**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

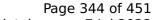
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

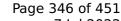
EN 14825				
Low temperature Medium temperature				
Pdesignh	18.17 kW	17.24 kW		



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

This information was gen	crated by the fir KETI	TARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
$COPTj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 347 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	racea by the fir RETI-	THIR database on 7 Jul 2022
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
t-		



## **Model: NIMBUS M HYBRID 11 T NET**

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

General Data		
Power supply 3x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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, and the state of	<u>,                                      </u>	TARK database on 7 Jul 202.
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



14608 kWh



	<b>,</b>	
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW

11736 kWh

## **Average Climate**

Annual energy consumption Qhe

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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ins mornada vas gene		
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
1	t .	



## **Model: NIMBUS M HYBRID FLEX 11 NET**

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

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operacing range outdoor exchanger/indoor exchanger lower inflictioner infliction	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

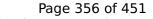
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

#### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

#### Colder Climate

# EN 12102-1Low temperatureMedium temperatureSound power level indoor15 dB(A)15 dB(A)Sound power level outdoor63 dB(A)63 dB(A)

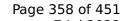
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	,	



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

<u> </u>	•	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





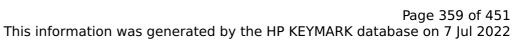
This information was gener	ated by the HP KEYMARK database on 7 Jul 2022

PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

## Average Climate

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

	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
ηs	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
ГЬіν	-7 °C	-7 °C
ГОL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



#### Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

#### Colder Climate

EN 16147		
Declared lead profile	XL	
Declared load profile	AL .	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	

## Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	



# **Model: NIMBUS M HYBRID FLEX 11 T NET**

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

General Data		
Power supply	3x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2				
Low temperature Medium temperature				
Heat output	10.40 kW	9.45 kW		
El input	2.08 kW	3.15 kW		
СОР	5.00	3.00		

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

	<u> </u>	
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



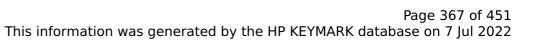


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

## Domestic Hot Water (DHW)



## Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

## Colder Climate

EN 16147	
Declared lead profile	XL
Declared load profile	AL .
Efficiency ηDHW	89 %
СОР	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 I

# Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	



# **Model: NIMBUS M HYBRID UNIVERSAL 11 NET**

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

	General Data	
Power supply	1x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

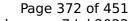
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

### Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
$COP Tj = +7^{\circ}C$	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38
	·	





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

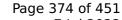
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	1	



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

<u> </u>	-	
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = $+2$ °C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low ten	mperature Medium temperature
Pdesignh	12.56 kV	W 11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kV	W 11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kV	W 10.22 kW



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

	<u> </u>	
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: NIMBUS M HYBRID UNIVERSAL 11 T NET**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

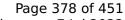
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

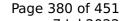
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# **Average Climate**

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

EN 14825		
	Low temperatu	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



# Page 381 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was gene	rated by the Hr KLIN	IANK database on 7 Jul 202.
$COP Tj = -7^{\circ}C$	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: ARIANEXT M HYBRID 11 LINK**

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

General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operacing range outdoor exchanger/indoor exchanger lower inflictioner infliction	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

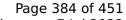
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

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

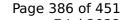
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

This information was ger	ierated by the HP KETI	MARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
$COPTj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7$ °C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	e Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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	<u> </u>	
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: ARIANEXT M HYBRID 11 T LINK**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

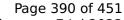
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

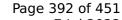
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW
	,	



# Page 391 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

This information was get	icrated by the rir RET	MARK database on 7 Jul 202
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = $-7$ °C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
Low temperature	Medium temperature	
12.56 kW	11.55 kW	
189 %	132 %	
12.56 kW	11.55 kW	
4.80	3.38	
-7 °C	-7 °C	
-10 °C	-10 °C	
11.11 kW	10.22 kW	
	12.56 kW 189 % 12.56 kW 4.80 -7 °C -10 °C	



# Page 393 of 451 This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: ARIANEXT M HYBRID FLEX 11 LINK**

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

General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

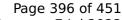
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

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

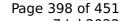
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

This information was gen	crated by the fir KETI	TARK database on 7 Jul 2022
$\eta_{s}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COPTj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
$COPTj = +2^{\circ}C$	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



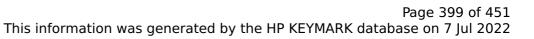


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperatu	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# Domestic Hot Water (DHW)



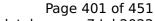
## Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

## Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 I	

# Average Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	



# **Model: ARIANEXT M HYBRID FLEX 11 T LINK**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow		
Complete power supply failure		
Defrost test	passed	

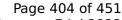
EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

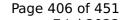
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW





	<u> </u>	
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = -7°C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW
$COP Tj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



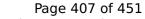


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW





COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	

# Domestic Hot Water (DHW)



## Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
СОР	2.70	
Heating up time	01:16 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	248	

## Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	89 %	
СОР	2.15	
Heating up time	01:49 h:min	
Standby power input	57.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	250 l	

# Average Climate



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	106 %	
СОР	2.56	
Heating up time	01:28 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.6 °C	
Mixed water at 40°C	251 I	

# **Model: ARIANEXT M HYBRID UNIVERSAL 11 LINK**

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

General Data		
Power supply	1x230V 50Hz	

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

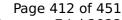
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

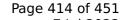
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
temperature		
V		





RETHINGRED GOOD T July 202
113 %
17.24 kW
2.91
-7 °C
-20 °C
10.44 kW
2.73
6.35 kW
3.83
4.19 kW
5.06
4.27 kW
7.06
10.44 kW
2.73
4.29 kW
0.92
0.90
60 °C
20 W
20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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

COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
	•	



# Model: ARIANEXT M HYBRID UNIVERSAL 11 T LINK

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

General Data		
Power supply	3x230V 50Hz	

# Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

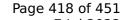
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00



## Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{S}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
$COPTj = +7^{\circ}C$	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW





COP Tj = Tbiv	4.07	2.38
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

## Colder Climate

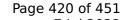
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature
	*	•





Pdesignh	18.17 kW	17.24 kW
$\eta_s$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
COP Tj = $-7$ °C	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W





РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

Low temperature  12.56 kW  189 %	Medium temperature  11.55 kW
189 %	122.0/
	132 %
12.56 kW	11.55 kW
4.80	3.38
-7 °C	-7 °C
-10 °C	-10 °C
_	4.80 -7 °C



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11.11 kW	10.22 kW
3.19	2.31
6.77 kW	6.23 kW
4.61	3.42
4.35 kW	4.00 kW
6.16	3.80
4.41 kW	4.07 kW
8.45	5.63
11.11 kW	10.22 kW
3.19	2.31
12.05 kW	11.47 kW
2.80	2.05
0.90	0.90
60 °C	60 °C
20 W	20 W
Gas	Gas
0.51 kW	0.08 kW
5411 kWh	7070 kWh
	6.77 kW  4.61  4.35 kW  6.16  4.41 kW  8.45  11.11 kW  3.19  12.05 kW  2.80  0.90  60 °C  20 W  20 W  20 W  Gas  0.51 kW



# **Model: AEROTOP HYBRID MINI EVO 11**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

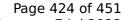
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

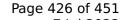
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

e Medium temperature
17.24 kW
_





$\eta_{S}$	150 %	113 %
Prated	18.17 kW	17.24 kW
SCOP	3.82	2.91
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.44 kW
$COP Tj = -7^{\circ}C$	3.46	2.73
Pdh Tj = +2°C	6.70 kW	6.35 kW
COP Tj = +2°C	3.46	3.83
Pdh Tj = +7°C	4.39 kW	4.19 kW
$COPTj = +7^{\circ}C$	6.60	5.06
Pdh Tj = 12°C	4.41 kW	4.27 kW
COP Tj = 12°C	8.45	7.06
Pdh Tj = Tbiv	11.00 kW	10.44 kW
COP Tj = Tbiv	3.46	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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

ins mornada vas gene		
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh
1	· ·	

# **Model: AEROTOP HYBRID UNIVERSAL 11**

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

General Data		
Power supply 3x230V 50Hz		

# Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

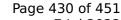
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	7.96 kW	7.45 kW
$\eta_{s}$	245 %	161 %
Prated	7.96 kW	7.45 kW
SCOP	6.21	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.96 kW	7.45 kW
COP Tj = +2°C	4.07	2.38
Pdh Tj = +7°C	5.36 kW	5.05 kW
COP Tj = +7°C	5.51	3.47
Pdh Tj = 12°C	4.40 kW	4.15 kW
COP Tj = 12°C	8.35	5.86
Pdh Tj = Tbiv	7.96 kW	7.45 kW
COP Tj = Tbiv	4.07	2.38





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.96 kW	7.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.07	2.38
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

# Colder Climate

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

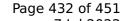
EN 14825		
	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.24 kW



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

This information was generated by the HP KEYMARK database on 7 Jul 2022			
$\eta_{s}$	150 %	113 %	
Prated	18.17 kW	17.24 kW	
SCOP	3.82	2.91	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7^{\circ}$ C	11.00 kW	10.44 kW	
$COPTj = -7^{\circ}C$	3.46	2.73	
Pdh Tj = +2°C	6.70 kW	6.35 kW	
$COPTj = +2^{\circ}C$	3.46	3.83	
Pdh Tj = $+7^{\circ}$ C	4.39 kW	4.19 kW	
$COPTj = +7^{\circ}C$	6.60	5.06	
Pdh Tj = 12°C	4.41 kW	4.27 kW	
COP Tj = 12°C	8.45	7.06	
Pdh Tj = Tbiv	11.00 kW	10.44 kW	
COP Tj = Tbiv	3.46	2.73	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.76 kW	4.29 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	0.92	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	





PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

# Average Climate

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

EN 14825		
	Low temperatur	re Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{S}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW



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	<u> </u>	
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
$COP Tj = +2^{\circ}C$	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: NIMBUS M FLEX IN 11 NET**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: NIMBUS M FLEX IN 11 T NET**

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

General Data	
Power supply 3x230V 50Hz	

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

# **Model: ARIANEXT M FLEX IN 11 LINK**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: ARIANEXT M FLEX IN 11 T LINK**

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

General Data		
Power supply 3x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2				
Low temperature Medium temperature				
Heat output	10.40 kW	9.45 kW		
El input	2.08 kW	3.15 kW		
СОР	5.00	3.00		

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = $+2$ °C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = $+7^{\circ}$ C	4.35 kW	4.00 kW
$COP Tj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: AEROTOP MONO BUILT-IN 11M-CRX**

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

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2				
Low temperature Medium temperature				
Heat output	10.40 kW	9.45 kW		
El input	2.08 kW	3.15 kW		
СОР	5.00	3.00		

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
$\eta_{s}$	189 %	132 %
Prated	12.56 kW	11.55 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = $-7^{\circ}$ C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
$COPTj = +7^{\circ}C$	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



# **Model: AEROTOP MONO BUILT-IN 11M-CR**

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

General Data		
Power supply 3x230V 50Hz		

## Heating

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00

### **Average Climate**



EN 12102-1			
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Sound power level indoor	0 dB(A)	0 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

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	Low temperature	Medium temperature
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Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 kW
COP Tj = +7°C	6.16	3.80
Pdh Tj = 12°C	4.41 kW	4.07 kW
COP Tj = 12°C	8.45	5.63



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Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	11.47 kW
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PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh