

$$\operatorname{\textit{Page}}\ 1$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGION M 11	Reg. No.	ICIM-PDC- 000001
Certificate Holder			
Name	Ariston Thermo Group		
Address	Viale Aristide Merloni 45	Zip	I-60044
City	Fabriano (AN)	Country	Italy
Certification Body	ICIM S.p.A.		
Name of testing laboratory	-Transition Rules-		
Subtype title	NIMBUS 110 M - ARIANEXT 110 M - AEROTOP MONO 11 - ENERGION M 11		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.9 kg		
Certification Date	19.12.2017		



Model: AEROTOP MONO 11M-R

General Data		
Power supply	3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 3 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





 $$\operatorname{\textit{Page}}\xspace$ 4 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

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)

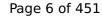
EN 14825		
	Low temperature	Medium temperature





 $$\operatorname{\textit{Page}}\xspace 5$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



ins mornation was ger	iciacca by the in Rein	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: AEROTOP MONO 11M-RL

General Data		
Power supply	3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

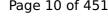
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





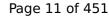
$$\operatorname{\textit{Page}}\ 10$ of 451$$ This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

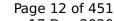
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 13 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
	·	



Model: ARIANEXT LITE 110 M-T LINK

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

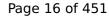
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



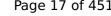


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

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)

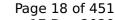
EN 1	4825	
	Low temperature	Medium temperature





$$\operatorname{\textit{Page}}\ 17$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



$$\operatorname{\textit{Page}}\ 19$ of 451$$ This information was generated by the HP KEYMARK database on 17 Dec 2020

ins institution was ge		
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: ARIANEXT LITE 110 M-T

General Data		
Power supply 3x230V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



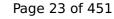


	·	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW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

Warmer Climate

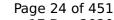
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



$$\operatorname{\textit{Page}}\xspace$ 25 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

ins institution was ge		
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: ARIANEXT PLUS 110 M-T LINK

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

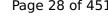
Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 27 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





$$\operatorname{\textit{Page}}\xspace$ 28 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

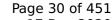
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 31 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

	· · · · · · · · · · · · · · · · · · ·	ANN database on 17 Dec 2020
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ARIANEXT PLUS 110 M-T

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



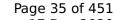


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

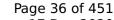
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 37 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the HP KETMARK database on 17 Dec 2020			
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	8.76 kW	4.29 kW	
COP Tj = TOL	2.20	0.92	
Cdh	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	



Model: NIMBUS PLUS 110 M-T NET

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



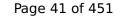


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

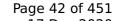
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 43 of 451

This information was generated by the HP KEYMARK database on 17 Dec 2020 $COP Tj = -7^{\circ}C$ 3.46 2.73 Pdh Tj = $+2^{\circ}$ C 6.70 kW 6.35 kW $COP Tj = +2^{\circ}C$ 3.46 3.83 4.39 kW Pdh Tj = $+7^{\circ}$ C 4.19 kW $COP Tj = +7^{\circ}C$ 6.60 5.06 Pdh Tj = 12° C 4.41 kW 4.27 kW $COP Tj = 12^{\circ}C$ 8.45 7.06 Pdh Tj = Tbiv11.00 kW 10.44 kW COP Tj = Tbiv3.46 2.73 Pdh Tj = TOL8.76 kW 4.29 kW COPTj = TOL2.20 0.92 Cdh 0.90 0.90 WTOL 60 °C 60 °C Poff 20 W 20 W 20 W PTO 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 14608 kWh Annual energy consumption Qhe 11736 kWh



Model: NIMBUS POCKET 110 M-T NET

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



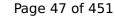


COP Tj = Tbiv 3.19 2.31 Pdh Tj = TOL 12.05 kW 11.47 kW COP Tj = TOL 2.80 2.05 Cdh 0.90 0.90 WTOL 60 °C 60 °C Poff 20 W 20 W PTO 20 W 20 W PSB 20 W 20 W PCK 20 W 20 W Supplementary Heater: Type of energy input electricity electricity Supplementary Heater: PSUP 0.51 kW 0.08 kW			
Pdh Tj = TOL 12.05 kW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

Warmer Climate

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

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 49 of 451

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

	· · · · · · · · · · · · · · · · · · ·	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
L	1	



Model: AEROTOP MONO 11M-CR

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

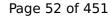
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



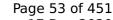


	<u>-</u>	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP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

Warmer Climate

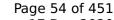
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



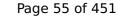


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
1	1	

Domestic Hot Water (DHW)

Average Climate

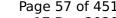
This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

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

Colder Climate





 $$\operatorname{\textit{Page}}\xspace$ 57 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: ARIANEXT COMPACT 110 M-T LINK

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

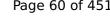
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





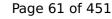
$$\operatorname{\textit{Page}}\xspace$ 60 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

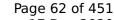
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



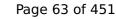


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

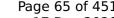
Average Climate

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

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 I

Colder Climate





 $$\operatorname{\textit{Page}}\xspace$ 65 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: ARIANEXT FLEX 110 M-T - 300 LINK

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 67 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



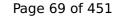


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

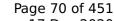
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



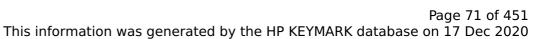


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

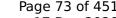
Average Climate

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 I	

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





 $$\operatorname{\textit{Page}}\xspace$ 73 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: ARIANEXT FLEX 110 M-T LINK

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

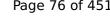
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





$$\operatorname{\textit{Page}}\ 76$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





$$\operatorname{\textit{Page}}\xspace$ 77 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



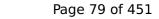


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
1	1	

Domestic Hot Water (DHW)

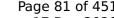
Average Climate

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

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





 $$\operatorname{\textit{Page}}\xspace$ 81 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: NIMBUS COMPACT 110 M-T NET

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



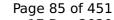


	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity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

Warmer Climate

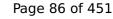
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



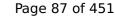


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
	i .	

Domestic Hot Water (DHW)

Average Climate

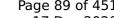
This information was generated by the HP KEYMARK database on 17 Dec 2020

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	

Warmer Climate

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

Colder Climate





 $$\operatorname{\textit{Page}}$$ 89 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	



Model: NIMBUS FLEX 110 M-T - 300 NET

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





		THE GOLD ASSESSED TO THE SEC 2021
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

Warmer Climate

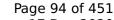
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



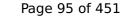


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

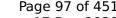
Average Climate

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	

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





 $$\operatorname{\textit{Page}}\xspace$ 97 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: NIMBUS FLEX 110 M-T NET

General Data		
Power supply 3x230V 50Hz		

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



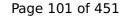


	-	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW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

Warmer Climate

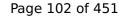
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



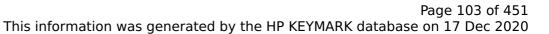


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



Average Climate

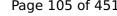
This information was generated by the HP KEYMARK database on 17 Dec 2020

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	

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	
INITIAL WATER AT 40 C	2401	

Colder Climate





 $$\operatorname{\textit{Page}}\xspace$ 105 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	



Model: ARIANEXT COMPACT 110 M-T

General Data		
Power supply	3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 107 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



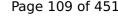
Page 108 of 451

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

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

Domestic Hot Water (DHW)

Average Climate





Page 109 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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-T - 300

General Data		
Power supply 3x230V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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

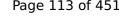


Page 112 of 451

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

	-	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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)





$$\operatorname{\textit{Page}}\ 113$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

General Data		
Power supply 3x230V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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

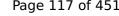


Page 116 of 451

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

	-	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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)





 $$\operatorname{\textit{Page}}\xspace$ 117 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

General Data	
Power supply	1x230V 50Hz

Heating

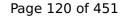
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

EN 14511-4	EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor 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 12102-1	
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



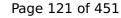


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

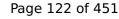
	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 123 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was 9	cherated by the Hi KETI	ANN database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: AEROTOP MONO 11M-RXL

General Data	
Power supply 1x230V 50Hz	

Heating

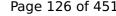
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





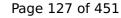
$$\operatorname{\textit{Page}}\ 126$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

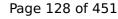
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



$$\operatorname{\textit{Page}}\ 129$ of 451$$ This information was generated by the HP KEYMARK database on 17 Dec 2020

ins institution was ge		
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: ARIANEXT LITE 110 M LINK

General Data	
Power supply	1x230V 50Hz

Heating

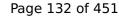
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



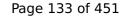


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

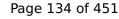
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



$$\operatorname{\textit{Page}}\ 135$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

ins institution was ge		
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: ARIANEXT LITE 110 M

General Data	
Power supply 1x230V 50Hz	

Heating

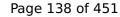
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



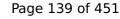


		THE GOLD ASSESSED TO THE SEC 2021
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

Warmer Climate

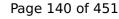
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 141 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Model: ARIANEXT PLUS 110 M LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



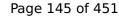


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

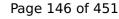
EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	15 dB(A)	15 dB(A)		
Sound power level outdoor	63 dB(A)	63 dB(A)		

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 147 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

rins information was ge.	iciacca by the in Rein	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ARIANEXT PLUS 110 M

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





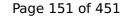
$$\operatorname{\textit{Page}}\ 150$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

	-	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

Warmer Climate

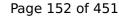
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 153 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the HF RETMARK database on 17 Dec 2020			
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	8.76 kW	4.29 kW	
COP Tj = TOL	2.20	0.92	
Cdh	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	



Model: NIMBUS PLUS 110 M NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





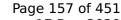
 $$\operatorname{\textit{Page}}\ 156$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

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 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 159 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Model: NIMBUS POCKET 110 M NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



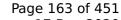


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

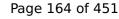
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 165 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh



Model: AEROTOP MONO 11M-CRX

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



 $$\operatorname{\textit{Page}}\ 167$$ of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



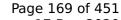


	10.22 kW
	2.31
5 kW	11.47 kW
	2.05
	0.90
	60 °C
1	20 W
ricity	electricity
kW	0.08 kW
kWh	7070 kWh
	ricity

Warmer Climate

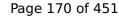
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 171 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



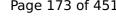
Average Climate

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

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 I

Colder Climate





 $$\operatorname{\textit{Page}}\xspace$ 173 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: ARIANEXT COMPACT 110 M LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



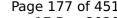


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





$$\operatorname{\textit{Page}}\xspace$ 177 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



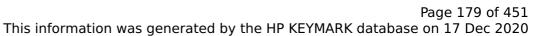


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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
$COPTj = +7^{\circ}C$	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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



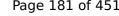
Average Climate

EN 16147		
Declared load profile	XL	
Efficiency 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	

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





$$\operatorname{\textit{Page}}\xspace$ 181 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	



Model: ARIANEXT FLEX 110 M LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



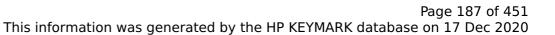


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



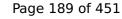
Average Climate

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

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



Model: ARIANEXT FLEX 110 M - 300 LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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	5411 kWh	7070 kWh

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



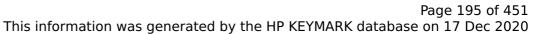


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

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

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





 $$\operatorname{\textit{Page}}\xspace$ 197 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: NIMBUS COMPACT 110 M NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

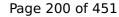
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



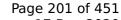


		THE GOLD ASSESSED TO THE SEC 2021
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

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
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

251 I

Average Climate

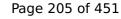
EN 16147 Declared load profile XLEfficiency ηDHW 106 % COP 2.56 Heating up time 01:28 h:min Standby power input 52.0 W Reference hot water temperature 53.6 °C

Warmer Climate

Mixed water at 40°C

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 I

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



Model: NIMBUS FLEX 110 M NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





$$\operatorname{\textit{Page}}\xspace$ 208 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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

Warmer Climate

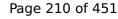
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 211 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



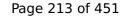
Average Climate

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	

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 I	

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	



Model: NIMBUS FLEX 110 M - 300 NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

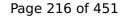
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



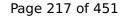


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

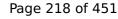
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



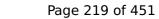


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



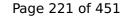
Average Climate

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	

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



Model: ARIANEXT COMPACT 110 M

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



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

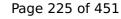
EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 kW
SCOP	4.80	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.22 kW
COP Tj = -7°C	3.19	2.31
Pdh Tj = +2°C	6.77 kW	6.23 kW
COP Tj = +2°C	4.61	3.42
Pdh Tj = +7°C	4.35 kW	4.00 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



Page 224 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the HF RETMARK database on 17 Dec 202		
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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)





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

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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

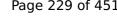


Page 228 of 451

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

	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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)





$$\operatorname{\textit{Page}}\xspace$ 229 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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 I



Model: ARIANEXT FLEX 110 M - 300

General Data	
Power supply 1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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

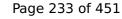


Page 232 of 451

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

	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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)





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

General Data		
Power supply 1x230V 50Hz		

Heating

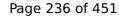
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



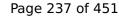


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

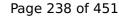
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 239 of 451

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

	-	ANN database on 17 Dec 2020
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh



Model: ENERGION M PLUS 11 T

General Data	
Power supply	3x230V 50Hz

Heating

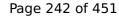
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



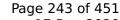


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

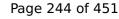
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 245 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>	1	



Model: ENERGION M LIGHT 11

General Data	
Power supply	1x230V 50Hz

Heating

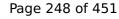
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



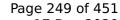


This information was generated by the Fill Refine addadase on 17 Dec 2020				
Pdh Tj = Tbiv	11.11 kW	10.22 kW		
COP Tj = Tbiv	3.19	2.31		
Pdh Tj = TOL	12.05 kW	11.47 kW		
COP Tj = TOL	2.80	2.05		
Cdh	0.90	0.90		
WTOL	60 °C	60 °C		
Poff	20 W	20 W		
РТО	20 W	20 W		
PSB	20 W	20 W		
PCK	20 W	20 W		
Supplementary Heater: Type of energy input	electricity	electricity		
Supplementary Heater: PSUP	0.51 kW	0.08 kW		
Annual energy consumption Qhe	5411 kWh	7070 kWh		

Warmer Climate

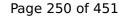
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 251 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the Hr KLIMAKK database on 17 Dec 2020				
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	8.76 kW	4.29 kW		
COP Tj = TOL	2.20	0.92		
Cdh	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		
	·			



Model: ENERGION M LIGHT 11 T

General Data	
Power supply	3x230V 50Hz

Heating

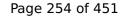
EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power 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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



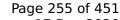


	1	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

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 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 257 of 451

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

	· · · · · · · · · · · · · · · · · · ·	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
L	1	

Model: ENERGION M FLEX 11 180 e

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

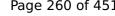
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





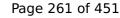
$$\operatorname{\textit{Page}}\xspace$ 260 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

	1	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



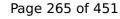
Average Climate

EN 16147		
Declared load profile	XL	
Efficiency 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	

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	



Model: ENERGION M FLEX 11 T 180 e

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

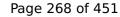
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



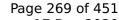


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



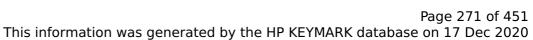


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



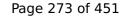
Average Climate

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	

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 I	

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	

Model: ENERGION M FLEX 11 300 e

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

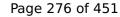
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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





This information was generated by the Fit RETPERMIX database on 17 Bee 202				
Pdh Tj = Tbiv	11.11 kW	10.22 kW		
COP Tj = Tbiv	3.19	2.31		
Pdh Tj = TOL	12.05 kW	11.47 kW		
COP Tj = TOL	2.80	2.05		
Cdh	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		

Warmer Climate

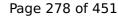
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825	
Low temperature Medium temperature	





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



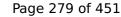


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

Average Climate

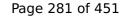
This information was generated by the HP KEYMARK database on 17 Dec 2020

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

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



Model: ENERGION M FLEX 11 T 300 e

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

	EN 14825	
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



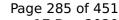


Pdh Tj = Tbiv 11.11 kW 10.22 kW COP Tj = Tbiv 3.19 2.31 Pdh Tj = TOL 12.05 kW 11.47 kW COP Tj = TOL 2.80 2.05 Cdh 0.90 0.90 WTOL 60 °C 60 °C Poff 20 W 20 W PTO 20 W 20 W PSB 20 W 20 W PCK 20 W 20 W Supplementary Heater: Type of energy input electricity electricity Supplementary Heater: PSUP 0.51 kW 0.08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

Warmer Climate

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

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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





			9	
This information	was generated b	v the HP KEYMARK	database on 17 Dec	2020

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

Average Climate

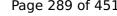
This information was generated by the HP KEYMARK database on 17 Dec 2020

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

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





$$\operatorname{\textit{Page}}\xspace$ 289 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	



Model: ENERGION M COMPACT 11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

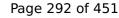
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



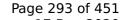


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

Average Climate

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

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

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 I	

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



Model: ENERGION M COMPACT 11 T

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



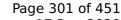


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.51 kW	0.08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

Warmer Climate

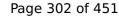
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)



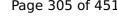
Average Climate

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

Warmer Climate

EN 16147	
Declared lead profile	XL
Declared load profile	AL .
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





$$\operatorname{\textit{Page}}\xspace$ 305 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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



Model: ENERGION M HYBRIDall 11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh

Warmer Climate

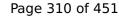
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 311 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was g	enerated by the Hi KETI	ANN database on 17 Dec 2020
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Model: ENERGION M HYBRIDall 11 T

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

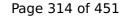
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



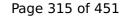


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

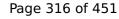
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



$$\operatorname{\textit{Page}}\xspace$ 317 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

ins mornation was ger	iciacca by the in Rein	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ATAG p ENERGION M HYBRIDzone 11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

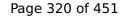
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



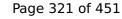


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

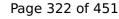
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 323 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the Hir KETMAKK database on 17 Dec 2020			
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	8.76 kW	4.29 kW	
COP Tj = TOL	2.20	0.92	
Cdh	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	



Model: ATAG p ENERGION M HYBRIDzone 11 T

General Data		
Power supply	3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

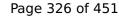
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



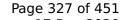


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

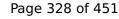
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 329 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was g	cherated by the Hi KETI	MANK database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	gas	gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh
 		



Model: ATAG i ENERGION M HYBRIDzone 11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

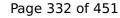
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



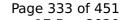


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

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 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 335 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This intermident was g	cheracea by the fit RETI	IANN database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ATAG i ENERGION M HYBRIDzone 11 T

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

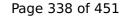
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



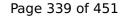


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

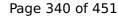
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 341 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was get	· · · · · · · · · · · · · · · ·	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	gas	gas
Supplementary Heater: PSUP	8.45 kW	12.05 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh



Model: NIMBUS M HYBRID 11 NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

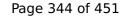
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



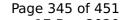


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

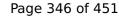
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 347 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Model: NIMBUS M HYBRID 11 T NET

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



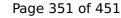


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

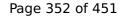
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η _s	150 %	113 %
Prated	8.20 kW	7.40 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



Page 353 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was 9	cherated by the Hi KETI	ANN database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: NIMBUS M HYBRID FLEX 11 NET

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



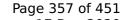


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



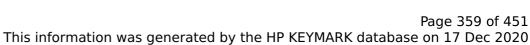


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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		
η_{s}	150 %	113 %		
Prated	8.20 kW	7.40 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		



Sus	CEN heat pump KEYMARK
حا	KLIMAKK

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



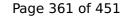
Average Climate

EN 16147			
Declared load profile	XL		
Efficiency 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		

Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	111 %	
COP	2.70	
Heating up time	01:16 h:min	
	39.0 W	
Standby power input		
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	



Model: NIMBUS M HYBRID FLEX 11 T NET

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



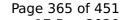


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



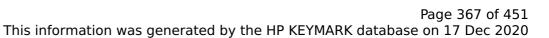


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



Average Climate

EN 16147	
Declared load profile	XL
Efficiency 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

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 I

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



Model: NIMBUS M HYBRID UNIVERSAL 11 NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

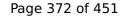
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



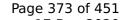


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

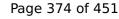
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 375 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

	,	ANN database on 17 Dec 2020
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: NIMBUS M HYBRID UNIVERSAL 11 T NET

General Data		
Power supply	3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

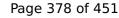
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



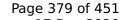


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

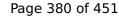
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 381 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was ge	Heratea by the Hi KETH	ANN database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
	•	



Model: ARIANEXT M HYBRID 11 LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

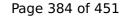
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



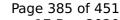


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 387 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was generated by the Hir RETMARK database on 17 Dec 2020		
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ARIANEXT M HYBRID 11 T LINK

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



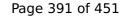


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 393 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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	gas	gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh



Model: ARIANEXT M HYBRID FLEX 11 LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825			
	Low temperature	Medium temperature	
Pdesignh	12.56 kW	11.55 kW	
η_{s}	189 %	132 %	
Prated	10.60 kW	9.60 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	



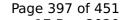


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W



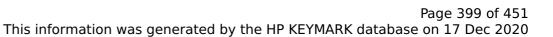


PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1714 kWh	2425 kWh

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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11736 kWh	14608 kWh

Domestic Hot Water (DHW)



Average Climate

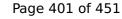
This information was generated by the HP KEYMARK database on 17 Dec 2020

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	

Warmer Climate

EN 16147		
Declared lead profile	XL	
Declared load profile	AL .	
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	



Model: ARIANEXT M HYBRID FLEX 11 T LINK

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

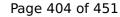
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure		
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

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
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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

Domestic Hot Water (DHW)

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

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	111 %
COP	2.70
Heating up time	01:16 h:min
	39.0 W
Standby power input	
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



Model: ARIANEXT M HYBRID UNIVERSAL 11 LINK

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

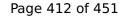
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



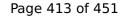


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

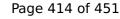
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
n _s	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 415 of 451

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

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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: ARIANEXT M HYBRID UNIVERSAL 11 T LINK

General Data	
Power supply 3x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

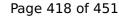
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



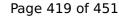


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

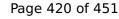
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 421 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

ins mornation was ger	iciacca by the in Rein	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: AEROTOP HYBRID MINI EVO 11

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	10.40 kW	9.45 kW	
El input	2.08 kW	3.15 kW	
СОР	5.00	3.00	
Indoor water flow rate	1.80 m³/h	1.03 m³/h	

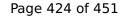
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



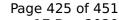


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

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
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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 = $+7^{\circ}$ 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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
η_{s}	150 %	113 %
Prated	8.20 kW	7.40 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



Page 427 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

This information was 9	cherated by the Hi KETI	ANN database on 17 Dec 202
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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
<u> </u>		



Model: AEROTOP HYBRID UNIVERSAL 11

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
Pdesignh	12.56 kW	11.55 kW
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



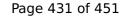


Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.51 kW	0.08 kW
Annual energy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

Warmer Climate

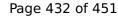
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	15 dB(A)	15 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 1	4825	
	Low temperature	Medium temperature





Pdesignh	7.96 kW	7.45 kW
η_{s}	245 %	161 %
Prated	10.80 kW	10.00 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	7.96 kW	7.45 kW
COP Tj = TOL	4.07	2.38
Cdh	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	
η _s	150 %	113 %	
Prated	8.20 kW	7.40 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	



Page 433 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

ins mornation was ger	iciacca by the in Rein	
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	8.76 kW	4.29 kW
COP Tj = TOL	2.20	0.92
Cdh	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



Model: NIMBUS M FLEX IN 11 NET

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 436 of 451

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

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 439 of 451

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

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 442 of 451

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

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 445 of 451

	-	
Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	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

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 448 of 451

Pdh Tj = Tbiv	11.11 kW	10.22 kW
COP Tj = Tbiv	3.19	2.31
Pdh Tj = TOL	12.05 kW	11.47 kW
COP Tj = TOL	2.80	2.05
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	5411 kWh	7070 kWh



Model: AEROTOP MONO BUILT-IN 11M-CR

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.40 kW	9.45 kW
El input	2.08 kW	3.15 kW
СОР	5.00	3.00
Indoor water flow rate	1.80 m³/h	1.03 m³/h

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



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
η_{s}	189 %	132 %
Prated	10.60 kW	9.60 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



Page 451 of 451 This information was generated by the HP KEYMARK database on 17 Dec 2020

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