

Subtype NIMBUS/ARIANEXT/AEROTOP/ENERGION 120/150 M - Plus/LB

Certificate Holder	Ariston Thermo Group
Address	Viale Aristide Merloni 45
ZIP	I-60044
City	Fabriano (AN)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	NIMBUS/ARIANEXT/AEROTOP/ENERGION 120/150 M - Plus/LB
Registration number	ICIM-PDC-000108
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	2.1 kg
Certification Date	05.07.2022
Testing basis	Heat Pump KEYMARK rev9

Model NIMBUS PLUS 120 M NET R32

Model name	NIMBUS PLUS 120 M NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh
Pdh Tj = -15°C (if TOL		
COP Tj = -15°C (if TOL		
Cdh Tj = -15 °C		

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model NIMBUS PLUS 150 M NET R32

Model name	NIMBUS PLUS 150 M NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh
Pdh Tj = -15°C (if TOL		
COP Tj = -15°C (if TOL		
Cdh Tj = -15 °C		

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
ηs	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model NIMBUS PLUS 120 M-T NET R32

Model name	NIMBUS PLUS 120 M-T NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model NIMBUS PLUS 150 M-T NET R32

Model name	NIMBUS PLUS 150 M-T NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model NIMBUS POCKET 120 M NET R32

Model name	NIMBUS POCKET 120 M NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model NIMBUS POCKET 150 M NET R32

Model name	NIMBUS POCKET 150 M NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh

Model NIMBUS POCKET 120 M-T NET R32

Model name	NIMBUS POCKET 120 M-T NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
η_s	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model NIMBUS POCKET 150 M-T NET R32

Model name	NIMBUS POCKET 150 M-T NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh

Model ARIANEXT PLUS 120 M LINK R32

Model name	ARIANEXT PLUS 120 M LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ARIANEXT PLUS 120 M-T LINK R32

Model name	ARIANEXT PLUS 120 M-T LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ARIANEXT PLUS 150 M LINK R32

Model name	ARIANEXT PLUS 150 M LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model ARIANEXT PLUS 150 M-T LINK R32

Model name	ARIANEXT PLUS 150 M-T LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh

Model ARIANEXT LITE 120 M LINK R32

Model name	ARIANEXT LITE 120 M LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ARIANEXT LITE 120 M-T LINK R32

Model name	ARIANEXT LITE 120 M-T LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ARIANEXT LITE 150 M LINK R32

Model name	ARIANEXT LITE 150 M LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model ARIANEXT LITE 150 M-T LINK R32

Model name	ARIANEXT LITE 150 M-T LINK R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model AEROTOP MONO 12.2 M-RX

Model name	AEROTOP MONO 12.2 M-RX
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model AEROTOP MONO 12.2 M-R

Model name	AEROTOP MONO 12.2 M-R
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model AEROTOP MONO 15.2 M-RX

Model name	AEROTOP MONO 15.2 M-RX
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
ηs	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model AEROTOP MONO 15.2 M-R

Model name	AEROTOP MONO 15.2 M-R
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model AEROTOP MONO 12.2 M-RXL

Model name	AEROTOP MONO 12.2 M-RXL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model AEROTOP MONO 12.2 M-RL

Model name	AEROTOP MONO 12.2 M-RL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model AEROTOP MONO 15.2 M-RXL

Model name	AEROTOP MONO 15.2 M-RXL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
ηs	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh

Model AEROTOP MONO 15.2 M-RL

Model name	AEROTOP MONO 15.2 M-RL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1638 kWh	2172 kWh

Model ENERGION M PLUS 120T

Model name	ENERGION M PLUS 120T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ENERGION M PLUS 150T

Model name	ENERGION M PLUS 150T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh

Model ENERGION M LIGHT 120T

Model name	ENERGION M LIGHT 120T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	10.84 kW	9.42 kW
η _s	204 %	143 %
P _{rated}	10.84 kW	9.42 kW
SCOP	5.16	3.65
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.59 kW	8.33 kW
COP T _j = -7°C	3.42	2.43
C _{dh} T _j = -7 °C	0.995	0.996
P _{dh} T _j = +2°C	5.74 kW	5.47 kW
COP T _j = +2°C	5.10	3.33
C _{dh} T _j = +2 °C	0.988	0.992
P _{dh} T _j = +7°C	4.16 kW	3.98 kW
COP T _j = +7°C	6.88	5.04
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	4.71 kW	4.75 kW
COP T _j = 12°C	8.66	6.86
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	9.59 kW	8.33 kW
COP Tj = Tbiv	3.42	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.11 kW	8.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	2.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.73 kW	0.74 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	4338 kWh	5335 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.33 kW	14.18 kW
ηs	160 %	129 %
Prated	15.33 kW	14.18 kW
SCOP	4.07	3.30
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.28 kW	8.58 kW
COP Tj = -7°C	3.74	2.94
Cdh Tj = -7 °C	0.995	0.995
Pdh Tj = +2°C	5.68 kW	5.42 kW
COP Tj = +2°C	5.38	4.26
Cdh Tj = +2 °C	0.987	0.989
Pdh Tj = +7°C	4.20 kW	4.09 kW
COP Tj = +7°C	7.39	5.83
Cdh Tj = +7 °C	0.976	0.981
Pdh Tj = 12°C	4.70 kW	4.72 kW
COP Tj = 12°C	8.75	7.21
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	9.28 kW	8.58 kW
COP Tj = Tbiv	3.74	2.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.41 kW	6.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	13.43 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	9289 kWh	10591 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.83 kW	6.46 kW
η_s	262 %	178 %
Prated	6.83 kW	6.46 kW
SCOP	6.62	4.51
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	6.83 kW	6.46 kW
COP Tj = +2°C	4.37	2.72
Cdh Tj = +2 °C	0.991	0.994
Pdh Tj = +7°C	4.48 kW	4.39 kW
COP Tj = +7°C	5.96	3.77
Cdh Tj = +7 °C	0.982	0.988
Pdh Tj = 12°C	4.72 kW	4.65 kW
COP Tj = 12°C	8.22	6.02
Cdh Tj = +12 °C	0.976	0.982
Pdh Tj = Tbiv	6.83 kW	6.46 kW
COP Tj = Tbiv	4.37	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.83 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.994

WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	1378 kWh	1912 kWh

Model ENERGION M LIGHT 150T

Model name	ENERGION M LIGHT 150T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
P _{designh}	12.48 kW	11.59 kW
η _s	202 %	151 %
P _{rated}	12.48 kW	11.59 kW
SCOP	5.12	3.85
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	11.04 kW	10.25 kW
COP T _j = -7°C	3.29	2.50
C _{dh} T _j = -7 °C	0.996	0.997
P _{dh} T _j = +2°C	6.98 kW	6.50 kW
COP T _j = +2°C	4.92	3.67
C _{dh} T _j = +2 °C	0.990	0.992
P _{dh} T _j = +7°C	4.39 kW	3.96 kW
COP T _j = +7°C	6.76	5.04
C _{dh} T _j = +7 °C	0.979	0.983
P _{dh} T _j = 12°C	4.71 kW	4.69 kW
COP T _j = 12°C	8.55	6.97
C _{dh} T _j = +12 °C	0.975	0.980

Pdh Tj = Tbiv	11.04 kW	10.25 kW
COP Tj = Tbiv	3.29	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.18 kW	10.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.06
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.30 kW	1.07 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	5035 kWh	6217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	18.17 kW	17.31 kW
η_s	157 %	122 %
Prated	18.17 kW	17.31 kW
SCOP	3.99	3.12
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.00 kW	10.48 kW
COP Tj = -7°C	3.57	2.91
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	6.88 kW	6.45 kW
COP Tj = +2°C	5.36	4.22
Cdh Tj = +2 °C	0.989	0.991
Pdh Tj = +7°C	4.43 kW	4.27 kW
COP Tj = +7°C	7.25	5.79
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	4.71 kW	4.60 kW
COP Tj = 12°C	8.53	7.20
Cdh Tj = +12 °C	0.975	0.979
Pdh Tj = Tbiv	11.00 kW	10.48 kW
COP Tj = Tbiv	3.57	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.74 kW	8.08 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.996
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	17.22 kW	16.40 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Qhe	11230 kWh	13042 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	8.01 kW	7.50 kW
η_s	258 %	181 %
Prated	8.01 kW	7.50 kW
SCOP	6.53	4.61
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.01 kW	7.50 kW
COP Tj = +2°C	4.27	2.77
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	5.33 kW	4.85 kW
COP Tj = +7°C	5.81	3.84
Cdh Tj = +7 °C	0.985	0.989
Pdh Tj = 12°C	4.72 kW	4.61 kW
COP Tj = 12°C	8.10	6.12
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	8.01 kW	7.50 kW
COP Tj = Tbiv	4.27	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.01 kW	7.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.27	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.982
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	6.00 kW	6.00 kW
Annual energy consumption Q _{he}	1638 kWh	2172 kWh