

## Subtype NIMBUS 90 M - ARIANEXT 90 M - AEROTOP MONO 09 - ENERGION M 9

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 90 M - ARIANEXT 90 M - AEROTOP MONO 09 - ENERGION M 9
Registration number	ICIM-PDC-000001
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	3.9 kg
Certification Date	19.12.2017

**Model AEROTOP MONO 09M-R**

Model name	AEROTOP MONO 09M-R
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model AEROTOP MONO 09M-RL**

Model name	AEROTOP MONO 09M-RL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT LITE 90 M-T LINK**

Model name	ARIANEXT LITE 90 M-T LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT LITE 90 M-T**

Model name	ARIANEXT LITE 90 M-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT PLUS 90 M-T LINK**

Model name	ARIANEXT PLUS 90 M-T LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT PLUS 90 M-T**

Model name	ARIANEXT PLUS 90 M-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS PLUS 90 M-T NET**

Model name	NIMBUS PLUS 90 M-T NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS POCKET 90 M-T NET**

Model name	NIMBUS POCKET 90 M-T NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model AEROTOP MONO 09M-CR**

Model name	AEROTOP MONO 09M-CR
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT COMPACT 90 M-T LINK**

Model name	ARIANEXT COMPACT 90 M-T LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT FLEX 90 M-T - 300 LINK**

Model name	ARIANEXT FLEX 90 M-T - 300 LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT FLEX 90 M-T LINK**

Model name	ARIANEXT FLEX 90 M-T LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS COMPACT 90 M-T NET**

Model name	NIMBUS COMPACT 90 M-T NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS FLEX 90 M-T - 300 NET**

Model name	NIMBUS FLEX 90 M-T - 300 NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS FLEX 90 M-T NET**

Model name	NIMBUS FLEX 90 M-T NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT COMPACT 90 M-T**

Model name	ARIANEXT COMPACT 90 M-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	127 %
COP	3.01
Heating up time	00:47 h:min
Standby power input	38.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	247 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30

Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ARIANEXT FLEX 90 M-T - 300**

Model name	ARIANEXT FLEX 90 M-T - 300
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:52 h:min
Standby power input	61.0 W
Reference hot water temperature	54.4 °C
Mixed water at 40°C	434 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30



Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ARIANEXT FLEX 90 M-T**

Model name	ARIANEXT FLEX 90 M-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	127 %
COP	3.01
Heating up time	00:47 h:min
Standby power input	38.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	247 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30

Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model AEROTOP MONO 09M-RX**

Model name	AEROTOP MONO 09M-RX
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model AEROTOP MONO 09M-RXL**

Model name	AEROTOP MONO 09M-RXL
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT LITE 90 M LINK**

Model name	ARIANEXT LITE 90 M LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT LITE 90 M**

Model name	ARIANEXT LITE 90 M
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT PLUS 90 M LINK**

Model name	ARIANEXT PLUS 90 M LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT PLUS 90 M**

Model name	ARIANEXT PLUS 90 M
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS PLUS 90 M NET**

Model name	NIMBUS PLUS 90 M NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS POCKET 90 M NET**

Model name	NIMBUS POCKET 90 M NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model AEROTOP MONO 09M-CRX**

Model name	AEROTOP MONO 09M-CRX
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT COMPACT 90 M LINK**

Model name	ARIANEXT COMPACT 90 M LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**



	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT FLEX 90 M LINK**

Model name	ARIANEXT FLEX 90 M LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT FLEX 90 M - 300 LINK**

Model name	ARIANEXT FLEX 90 M - 300 LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**



	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS COMPACT 90 M NET**

Model name	NIMBUS COMPACT 90 M NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS FLEX 90 M NET**

Model name	NIMBUS FLEX 90 M NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**



	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS FLEX 90 M - 300 NET**

Model name	NIMBUS FLEX 90 M - 300 NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT COMPACT 90 M**

Model name	ARIANEXT COMPACT 90 M
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	127 %
COP	3.01
Heating up time	00:47 h:min
Standby power input	38.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	247 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30



Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ARIANEXT FLEX 90 M**

Model name	ARIANEXT FLEX 90 M
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	127 %
COP	3.01
Heating up time	00:47 h:min
Standby power input	38.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	247 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30

Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## Model ARIANEXT FLEX 90 M - 300

Model name	ARIANEXT FLEX 90 M - 300
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	Yes

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.10
Heating up time	01:52 h:min
Standby power input	61.0 W
Reference hot water temperature	54.4 °C
Mixed water at 40°C	434 l

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
Pr <sub>ated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30

Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.38 kW	8.31 kW
COP Tj = -7°C	3.29	2.32
Pdh Tj = +2°C	5.71 kW	5.33 kW
COP Tj = +2°C	4.67	3.33
Pdh Tj = +7°C	3.67 kW	3.48 kW
COP Tj = +7°C	6.01	3.80
Pdh Tj = 12°C	4.44 kW	4.02 kW
COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ENERGION M PLUS 9**

Model name	ENERGION M PLUS 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ENERGION M PLUS 9 T**

Model name	ENERGION M PLUS 9 T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ENERGION M LIGHT 9**

Model name	ENERGION M LIGHT 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ENERGION M LIGHT 9 T**

Model name	ENERGION M LIGHT 9 T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ENERGION M FLEX 9 180 e**

Model name	ENERGION M FLEX 9 180 e
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M FLEX 9 T 180 e**

Model name	ENERGION M FLEX 9 T 180 e
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M FLEX 9 300 e**

Model name	ENERGION M FLEX 9 300 e
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M FLEX 9 T 300 e**

Model name	ENERGION M FLEX 9 T 300 e
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	122 %
COP	3.06
Heating up time	01:52 h:min
Standby power input	53.0 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	434 l

**EN 16147 | Colder Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	97 %
COP	2.43
Heating up time	02:15 h:min
Standby power input	63.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	422 l

**EN 16147 | Warmer Climate**

Declared load profile	XXL
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	01:34 h:min
Standby power input	48.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	430 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M COMPACT 9**

Model name	ENERGION M COMPACT 9
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M COMPACT 9 T**

Model name	ENERGION M COMPACT 9 T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ENERGION M HYBRIDall 9**

Model name	ENERGION M HYBRIDall 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ENERGION M HYBRIDall 9 T**

Model name	ENERGION M HYBRIDall 9 T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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## Model ATAG p ENERGION M HYBRIDzone 9

Model name	ATAG p ENERGION M HYBRIDzone 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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## Model ATAG p ENERGION M HYBRIDzone 9 T

Model name	ATAG p ENERGION M HYBRIDzone 9 T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x230V 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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ATAG i ENERGION M HYBRIDzone 9**

Model name	ATAG i ENERGION M HYBRIDzone 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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## Model ATAG i ENERGION M HYBRIDzone 9 T

Model name	ATAG i ENERGION M HYBRIDzone 9 T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x230V 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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	8.06 kW	11.11 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS M HYBRID 9 NET**

Model name	NIMBUS M HYBRID 9 NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe

1464 kWh

2142 kWh

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**Model NIMBUS M HYBRID 9 T NET**

Model name	NIMBUS M HYBRID 9 T NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS M HYBRID FLEX 9 NET**

Model name	NIMBUS M HYBRID FLEX 9 NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS M HYBRID FLEX 9 T NET**

Model name	NIMBUS M HYBRID FLEX 9 T NET
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model NIMBUS M HYBRID UNIVERSAL 9 NET**

Model name	NIMBUS M HYBRID UNIVERSAL 9 NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS M HYBRID UNIVERSAL 9 T NET**

Model name	NIMBUS M HYBRID UNIVERSAL 9 T NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT M HYBRID 9 LINK**

Model name	ARIANEXT M HYBRID 9 LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT M HYBRID 9 T LINK**

Model name	ARIANEXT M HYBRID 9 T LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT M HYBRID FLEX 9 LINK**

Model name	ARIANEXT M HYBRID FLEX 9 LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %



Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

**Model ARIANEXT M HYBRID FLEX 9 T LINK**

Model name	ARIANEXT M HYBRID FLEX 9 T LINK
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.56
Heating up time	01:28 h:min
Standby power input	52.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	251 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	89 %
COP	2.15
Heating up time	01:49 h:min
Standby power input	57.0 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	250 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	111 %
COP	2.70
Heating up time	01:16 h:min
Standby power input	39.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	248 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW
COP T <sub>j</sub> = 12°C	8.76	5.81
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.38 kW	8.31 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.14 kW	9.32 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.77	1.68
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Q <sub>he</sub>	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
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Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	15.17 kW	13.91 kW
η <sub>s</sub>	152 %	109 %
P <sub>rated</sub>	15.17 kW	13.91 kW
SCOP	3.88	2.81
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.18 kW	8.42 kW
COP T <sub>j</sub> = -7°C	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.61 kW	5.12 kW
COP T <sub>j</sub> = +2°C	5.17	3.67
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.75 kW
COP T <sub>j</sub> = +7°C	6.75	5.12
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.43 kW	4.30 kW
COP T <sub>j</sub> = 12°C	8.92	6.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.18 kW	8.42 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.67	2.77
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	6.31 kW	2.06 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.18	0.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	6.65 kW	6.26 kW
η <sub>s</sub>	234 %	153 %

Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1464 kWh	2142 kWh

## Model ARIANEXT M HYBRID UNIVERSAL 9 LINK

Model name	ARIANEXT M HYBRID UNIVERSAL 9 LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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## Model AEROTOP HYBRID MINI EVO 9

Model name	AEROTOP HYBRID MINI EVO 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x230V 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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
$\eta_s$	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model AEROTOP HYBRID UNIVERSAL 9**

Model name	AEROTOP HYBRID UNIVERSAL 9
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW



Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model ARIANEXT M HYBRID UNIVERSAL 9 T LINK**

Model name	ARIANEXT M HYBRID UNIVERSAL 9 T LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.47 kW	0.07 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	15.17 kW	13.91 kW
ηs	152 %	109 %
Prated	15.17 kW	13.91 kW
SCOP	3.88	2.81
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.18 kW	8.42 kW
COP Tj = -7°C	3.67	2.77
Pdh Tj = +2°C	5.61 kW	5.12 kW
COP Tj = +2°C	5.17	3.67
Pdh Tj = +7°C	3.68 kW	3.75 kW
COP Tj = +7°C	6.75	5.12
Pdh Tj = 12°C	4.43 kW	4.30 kW
COP Tj = 12°C	8.92	6.96
Pdh Tj = Tbiv	9.18 kW	8.42 kW
COP Tj = Tbiv	3.67	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.31 kW	2.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	0.54

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	9625 kWh	12191 kWh

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	15 dB(A)	15 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	6.65 kW	6.26 kW
$\eta_s$	234 %	153 %
Prated	6.65 kW	6.26 kW
SCOP	6.07	3.91
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.65 kW	6.26 kW
COP Tj = +2°C	3.90	2.33
Pdh Tj = +7°C	4.46 kW	4.18 kW
COP Tj = +7°C	5.44	3.31
Pdh Tj = 12°C	4.36 kW	4.12 kW
COP Tj = 12°C	8.45	5.73
Pdh Tj = Tbiv	6.65 kW	6.26 kW
COP Tj = Tbiv	3.90	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1464 kWh	2142 kWh
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**Model NIMBUS M FLEX IN 9 NET**

Model name	NIMBUS M FLEX IN 9 NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model NIMBUS M FLEX IN 9 T NET**

Model name	NIMBUS M FLEX IN 9 T NET
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ARIANEXT M FLEX IN 9 LINK**

Model name	ARIANEXT M FLEX IN 9 LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model ARIANEXT M FLEX IN 9 T LINK**

Model name	ARIANEXT M FLEX IN 9 T LINK
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model AEROTOP MONO BUILT-IN 09M-CRX**

Model name	AEROTOP MONO BUILT-IN 09M-CRX
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW

COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh

**Model AEROTOP MONO BUILT-IN 09M-CR**

Model name	AEROTOP MONO BUILT-IN 09M-CR
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x230V 50Hz
Off-peak product	Yes

**Outdoor Air/Water****EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	8.49 kW	7.59 kW
El input	1.66 kW	2.50 kW
COP	5.10	3.04

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
P <sub>designh</sub>	10.61 kW	9.39 kW
η <sub>s</sub>	189 %	129 %
P <sub>rated</sub>	10.61 kW	9.39 kW
SCOP	4.80	3.30
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.38 kW	8.31 kW
COP T <sub>j</sub> = -7°C	3.29	2.32
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.33 kW
COP T <sub>j</sub> = +2°C	4.67	3.33
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.67 kW	3.48 kW
COP T <sub>j</sub> = +7°C	6.01	3.80
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.44 kW	4.02 kW



COP Tj = 12°C	8.76	5.81
Pdh Tj = Tbiv	9.38 kW	8.31 kW
COP Tj = Tbiv	3.29	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	9.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.50 kW	0.10 kW
Annual energy consumption Qhe	4561 kWh	5878 kWh