

## Subtype AquaSnap NG(A) 30AWH 010-016x

Certificate Holder	Viessmann Climate Solutions GmbH & Co. KG
Address	Viessmannstr. 1
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City	Allendorf/Eder
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AquaSnap NG(A) 30AWH 010-016x
Registration number	011-1W1014
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	2 kg
Certification Date	30.04.2025
Testing basis	HP KEYMARK certification scheme rules rev. 14

## Model AquaSnap 30AWH010H1--NG

Model name	AquaSnap 30AWH010H1--NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.3 kW	6.75 kW
El input	1.46 kW	2.53 kW
COP	5	2.67

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	145 %
Prated	9.8 kW	9.37 kW
SCOP	4.83	3.7
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.7 kW	8.3 kW
COP Tj = -7°C	3.1	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.4 kW	5.2 kW
COP Tj = +2°C	4.8	3.7

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.8 kW	5.7 kW
COP Tj = +7°C	6	4.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.3	6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.7 kW	8.3 kW
COP Tj = Tbiv	3.1	2.4
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.9 kW	7.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.9 kW	1.87 kW
Annual energy consumption Qhe	4129 kWh	5229 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	127 %
Prated	8.48 kW	7.98 kW
SCOP	4.08	3.25
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.7 kW	8.4 kW
COP Tj = -7°C	3.2	2.6
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.5 kW	5.2 kW
COP Tj = +2°C	5	4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW

COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.9 kW	6.5 kW
COP Tj = Tbiv	2.7	2.1
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6 kW	5.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.48 kW	7.98 kW
Annual energy consumption Qhe	5126 kWh	6050 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	168 %
Prated	5.27 kW	4.65 kW
SCOP	6.04	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.3 kW	4.7 kW
COP Tj = +2°C	4.2	2.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.3	3.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.8 kW	5.5 kW
COP Tj = 12°C	7.2	5.4
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	5.3 kW	4.7 kW
COP Tj = Tbiv	4.2	2.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.3 kW	4.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.2	2.7

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1165 kWh	1454 kWh

## Model AquaSnap 30AWH013H1--NG

Model name	AquaSnap 30AWH013H1--NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.1 kW	7.56 kW
El input	1.65 kW	2.47 kW
COP	4.9	3.06

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	12.42 kW	12.1 kW
SCOP	4.53	3.54
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11 kW	10.7 kW
COP Tj = -7°C	3	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.3	3.4

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	11 kW	10.7 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.1 kW	9.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.32 kW	2.4 kW
Annual energy consumption Qhe	5672 kWh	6944 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	144 %	118 %
Prated	10.8 kW	10.35 kW
SCOP	3.67	3.03
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11 kW	10.8 kW
COP Tj = -7°C	3	2.5
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.4	3.6
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW

COP Tj = 12°C	7.2	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.8 kW	8.4 kW
COP Tj = Tbiv	2.5	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.7 kW	7.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.8 kW	10.35 kW
Annual energy consumption Qhe	7252 kWh	8407 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	173 %
Prated	6.68 kW	6.62 kW
SCOP	6.05	4.41
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.7 kW	6.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.4	3.7
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.7 kW	5.5 kW
COP Tj = 12°C	6.9	5.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.7 kW	6.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.7 kW	6.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1518 kWh	2007 kWh

## Model AquaSnap 30AWH016H1--NG

Model name	AquaSnap 30AWH016H1--NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.1 kW	8.49 kW
El input	1.86 kW	2.53 kW
COP	4.9	3.35

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	13.67 kW	13.37 kW
SCOP	4.52	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12 kW	11.8 kW
COP Tj = -7°C	2.9	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.4 kW	7.5 kW
COP Tj = +2°C	4.3	3.4

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.5 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.3 kW	5.7 kW
COP Tj = 12°C	7.3	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	12.1 kW	11.8 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.57 kW	2.67 kW
Annual energy consumption Qhe	6242 kWh	7670 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	117 %
Prated	11.83 kW	11.17 kW
SCOP	3.61	2.99
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	12.1 kW	11.7 kW
COP Tj = -7°C	2.8	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.6 kW	7.5 kW
COP Tj = +2°C	4.3	3.5
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.6 kW
COP Tj = +7°C	6.1	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.4 kW	5.7 kW

COP Tj = 12°C	7.3	6.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	9.7 kW	9.1 kW
COP Tj = Tbiv	2.4	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.4 kW	7.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.2	1.7
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.83 kW	11.17 kW
Annual energy consumption Qhe	8080 kWh	10386 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	175 %
Prated	7.54 kW	7.56 kW
SCOP	6.06	4.46
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.5 kW	7.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.6 kW	6.1 kW
COP Tj = +7°C	5.4	3.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.6 kW
COP Tj = 12°C	7.3	5.6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	7.5 kW	7.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.5 kW	7.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1662 kWh	2266 kWh

## Model AquaSnap 30AWH010H19-NG

Model name	AquaSnap 30AWH010H19-NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.3 kW	6.75 kW
El input	1.46 kW	2.53 kW
COP	5	2.67

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	145 %
Prated	9.8 kW	9.37 kW
SCOP	4.83	3.7
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.7 kW	8.3 kW
COP Tj = -7°C	3.1	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.4 kW	5.2 kW
COP Tj = +2°C	4.8	3.7

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.8 kW	5.7 kW
COP Tj = +7°C	6	4.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.3	6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.7 kW	8.3 kW
COP Tj = Tbiv	3.1	2.4
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.9 kW	7.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.9 kW	1.87 kW
Annual energy consumption Qhe	4129 kWh	5229 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	127 %
Prated	8.48 kW	7.98 kW
SCOP	4.08	3.25
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.7 kW	8.4 kW
COP Tj = -7°C	3.2	2.6
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.5 kW	5.2 kW
COP Tj = +2°C	5	4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW

COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.9 kW	6.5 kW
COP Tj = Tbiv	2.7	2.1
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6 kW	5.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.48 kW	7.98 kW
Annual energy consumption Qhe	5126 kWh	6050 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	168 %
Prated	5.27 kW	4.65 kW
SCOP	6.04	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.3 kW	4.7 kW
COP Tj = +2°C	4.2	2.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.3	3.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.8 kW	5.5 kW
COP Tj = 12°C	7.2	5.4
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	5.3 kW	4.7 kW
COP Tj = Tbiv	4.2	2.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.3 kW	4.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.2	2.7



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1165 kWh	1454 kWh

## Model AquaSnap 30AWH013H19-NG

Model name	AquaSnap 30AWH013H19-NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.1 kW	7.56 kW
El input	1.65 kW	2.47 kW
COP	4.9	3.06

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	12.42 kW	12.1 kW
SCOP	4.53	3.54
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11 kW	10.7 kW
COP Tj = -7°C	3	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.3	3.4

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	11 kW	10.7 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.1 kW	9.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.32 kW	2.4 kW
Annual energy consumption Qhe	5672 kWh	6944 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	144 %	118 %
Prated	10.8 kW	10.35 kW
SCOP	3.67	3.03
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11 kW	10.8 kW
COP Tj = -7°C	3	2.5
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.4	3.6
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW

COP Tj = 12°C	7.2	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.8 kW	8.4 kW
COP Tj = Tbiv	2.5	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.7 kW	7.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.8 kW	10.35 kW
Annual energy consumption Qhe	7252 kWh	8407 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	173 %
Prated	6.68 kW	6.62 kW
SCOP	6.05	4.41
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.7 kW	6.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.4	3.7
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.7 kW	5.5 kW
COP Tj = 12°C	6.9	5.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.7 kW	6.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.7 kW	6.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1518 kWh	2007 kWh

## Model AquaSnap 30AWH016H19-NG

Model name	AquaSnap 30AWH016H19-NG
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 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
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.1 kW	8.49 kW
El input	1.86 kW	2.53 kW
COP	4.9	3.35

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	13.67 kW	13.37 kW
SCOP	4.52	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12 kW	11.8 kW
COP Tj = -7°C	2.9	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.4 kW	7.5 kW
COP Tj = +2°C	4.3	3.4

Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.5 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.3 kW	5.7 kW
COP Tj = 12°C	7.3	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	12.1 kW	11.8 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.57 kW	2.67 kW
Annual energy consumption Qhe	6242 kWh	7670 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	117 %
Prated	11.83 kW	11.17 kW
SCOP	3.61	2.99
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	12.1 kW	11.7 kW
COP Tj = -7°C	2.8	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.6 kW	7.5 kW
COP Tj = +2°C	4.3	3.5
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.6 kW
COP Tj = +7°C	6.1	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.4 kW	5.7 kW

COP Tj = 12°C	7.3	6.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	9.7 kW	9.1 kW
COP Tj = Tbiv	2.4	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.4 kW	7.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.2	1.7
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.83 kW	11.17 kW
Annual energy consumption Qhe	8080 kWh	10386 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	175 %
Prated	7.54 kW	7.56 kW
SCOP	6.06	4.46
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.5 kW	7.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.6 kW	6.1 kW
COP Tj = +7°C	5.4	3.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.6 kW
COP Tj = 12°C	7.3	5.6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	7.5 kW	7.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.5 kW	7.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1662 kWh	2266 kWh

## Model AquaSnap 30AWH010H1--NGA

Model name	AquaSnap 30AWH010H1--NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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 $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.3 kW	6.75 kW
El input	1.46 kW	2.53 kW
COP	5	2.67

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	145 %
Prated	9.8 kW	9.37 kW
SCOP	4.83	3.7
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.7 kW	8.3 kW
COP Tj = -7°C	3.1	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.4 kW	5.2 kW
COP Tj = +2°C	4.8	3.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.8 kW	5.7 kW
COP Tj = +7°C	6	4.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.3	6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.7 kW	8.3 kW
COP Tj = Tbiv	3.1	2.4
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.9 kW	7.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.9 kW	1.87 kW
Annual energy consumption Qhe	4129 kWh	5229 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	127 %
Prated	8.48 kW	7.98 kW
SCOP	4.08	3.25
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.7 kW	8.4 kW
COP Tj = -7°C	3.2	2.6
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.5 kW	5.2 kW
COP Tj = +2°C	5	4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW
COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.9 kW	6.5 kW
COP Tj = Tbiv	2.7	2.1
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6 kW	5.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.48 kW	7.98 kW
Annual energy consumption Qhe	5126 kWh	6050 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	168 %
Prated	5.27 kW	4.65 kW
SCOP	6.04	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.3 kW	4.7 kW
COP Tj = +2°C	4.2	2.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.3	3.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.8 kW	5.5 kW
COP Tj = 12°C	7.2	5.4
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	5.3 kW	4.7 kW
COP Tj = Tbiv	4.2	2.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.3 kW	4.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.2	2.7
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1165 kWh	1454 kWh

## Model AquaSnap 30AWH013H1--NGA

Model name	AquaSnap 30AWH013H1--NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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 $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.1 kW	7.56 kW
El input	1.65 kW	2.47 kW
COP	4.9	3.06

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	12.42 kW	12.1 kW
SCOP	4.53	3.54
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11 kW	10.7 kW
COP Tj = -7°C	3	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.3	3.4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	11 kW	10.7 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.1 kW	9.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.32 kW	2.4 kW
Annual energy consumption Qhe	5672 kWh	6944 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	144 %	118 %
Prated	10.8 kW	10.35 kW
SCOP	3.67	3.03
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11 kW	10.8 kW
COP Tj = -7°C	3	2.5
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.4	3.6
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW
COP Tj = 12°C	7.2	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.8 kW	8.4 kW
COP Tj = Tbiv	2.5	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.7 kW	7.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.8 kW	10.35 kW
Annual energy consumption Qhe	7252 kWh	8407 kWh

#### EN 12102-1 | Warmer Climate



	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	173 %
Prated	6.68 kW	6.62 kW
SCOP	6.05	4.41
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.7 kW	6.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.4	3.7
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.7 kW	5.5 kW
COP Tj = 12°C	6.9	5.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.7 kW	6.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.7 kW	6.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1518 kWh	2007 kWh

## Model AquaSnap 30AWH016H1--NGA

Model name	AquaSnap 30AWH016H1--NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
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 $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.1 kW	8.49 kW
El input	1.86 kW	2.53 kW
COP	4.9	3.35

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	13.67 kW	13.37 kW
SCOP	4.52	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12 kW	11.8 kW
COP Tj = -7°C	2.9	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.4 kW	7.5 kW
COP Tj = +2°C	4.3	3.4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.5 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.3 kW	5.7 kW
COP Tj = 12°C	7.3	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	12.1 kW	11.8 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.57 kW	2.67 kW
Annual energy consumption Q <sub>he</sub>	6242 kWh	7670 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	141 %	117 %
Prated	11.83 kW	11.17 kW
SCOP	3.61	2.99
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	12.1 kW	11.7 kW
COP T <sub>j</sub> = -7°C	2.8	2.4
C <sub>dh</sub> T <sub>j</sub> = -7 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.6 kW	7.5 kW
COP T <sub>j</sub> = +2°C	4.3	3.5
C <sub>dh</sub> T <sub>j</sub> = +2 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = +7°C	6.7 kW	6.6 kW
COP T <sub>j</sub> = +7°C	6.1	5
C <sub>dh</sub> T <sub>j</sub> = +7 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = 12°C	5.4 kW	5.7 kW
COP T <sub>j</sub> = 12°C	7.3	6.5
C <sub>dh</sub> T <sub>j</sub> = +12 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.7 kW	9.1 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.4	2
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>	8.4 kW	7.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.2	1.7
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>	1	1
P <sub>off</sub>	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.83 kW	11.17 kW
Annual energy consumption Q <sub>he</sub>	8080 kWh	10386 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	175 %
Prated	7.54 kW	7.56 kW
SCOP	6.06	4.46
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.5 kW	7.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.6 kW	6.1 kW
COP Tj = +7°C	5.4	3.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.6 kW
COP Tj = 12°C	7.3	5.6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	7.5 kW	7.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.5 kW	7.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1662 kWh	2266 kWh

## Model AquaSnap 30AWH010H19-NGA

Model name	AquaSnap 30AWH010H19-NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.3 kW	6.75 kW
El input	1.46 kW	2.53 kW
COP	5	2.67

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	145 %
Prated	9.8 kW	9.37 kW
SCOP	4.83	3.7
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.7 kW	8.3 kW
COP Tj = -7°C	3.1	2.4
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.4 kW	5.2 kW
COP Tj = +2°C	4.8	3.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.8 kW	5.7 kW
COP Tj = +7°C	6	4.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.3	6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.7 kW	8.3 kW
COP Tj = Tbiv	3.1	2.4
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.9 kW	7.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.9	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.9 kW	1.87 kW
Annual energy consumption Q <sub>he</sub>	4129 kWh	5229 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	127 %
Prated	8.48 kW	7.98 kW
SCOP	4.08	3.25
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.7 kW	8.4 kW
COP T <sub>j</sub> = -7°C	3.2	2.6
C <sub>dh</sub> T <sub>j</sub> = -7 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.5 kW	5.2 kW
COP T <sub>j</sub> = +2°C	5	4
C <sub>dh</sub> T <sub>j</sub> = +2 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.9 kW	5.7 kW
COP T <sub>j</sub> = +7°C	6.2	5
C <sub>dh</sub> T <sub>j</sub> = +7 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = 12°C	5.6 kW	5.7 kW
COP T <sub>j</sub> = 12°C	7.4	6.3
C <sub>dh</sub> T <sub>j</sub> = +12 °C	1	1
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	6.9 kW	6.5 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.7	2.1
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 kW	5.5 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.3	1.8
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>	1	1
P <sub>off</sub>	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.48 kW	7.98 kW
Annual energy consumption Q <sub>he</sub>	5126 kWh	6050 kWh

#### EN 12102-1 | Warmer Climate



	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	168 %
Prated	5.27 kW	4.65 kW
SCOP	6.04	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.3 kW	4.7 kW
COP Tj = +2°C	4.2	2.7
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.3	3.6
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.8 kW	5.5 kW
COP Tj = 12°C	7.2	5.4
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	5.3 kW	4.7 kW
COP Tj = Tbiv	4.2	2.7
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.3 kW	4.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.2	2.7
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1165 kWh	1454 kWh

## Model AquaSnap 30AWH013H19-NGA

Model name	AquaSnap 30AWH013H19-NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.1 kW	7.56 kW
El input	1.65 kW	2.47 kW
COP	4.9	3.06

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	12.42 kW	12.1 kW
SCOP	4.53	3.54
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11 kW	10.7 kW
COP Tj = -7°C	3	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.3	3.4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.5 kW	5.7 kW
COP Tj = 12°C	7.4	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	11 kW	10.7 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.1 kW	9.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.7	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.32 kW	2.4 kW
Annual energy consumption Qhe	5672 kWh	6944 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	144 %	118 %
Prated	10.8 kW	10.35 kW
SCOP	3.67	3.03
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11 kW	10.8 kW
COP Tj = -7°C	3	2.5
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.8 kW	6.6 kW
COP Tj = +2°C	4.4	3.6
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.9 kW	5.7 kW
COP Tj = +7°C	6.2	5
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.7 kW
COP Tj = 12°C	7.2	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	8.8 kW	8.4 kW
COP Tj = Tbiv	2.5	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.7 kW	7.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.3	1.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.8 kW	10.35 kW
Annual energy consumption Qhe	7252 kWh	8407 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	173 %
Prated	6.68 kW	6.62 kW
SCOP	6.05	4.41
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.7 kW	6.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	5.7 kW	5.2 kW
COP Tj = +7°C	5.4	3.7
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.7 kW	5.5 kW
COP Tj = 12°C	6.9	5.5
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	6.7 kW	6.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.7 kW	6.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1518 kWh	2007 kWh

## Model AquaSnap 30AWH016H19-NGA

Model name	AquaSnap 30AWH016H19-NGA
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	123 %
COP	2.87
Heating up time	1:15 h:min
Standby power input	49.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	254 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	91 %
COP	2.12
Heating up time	1:27 h:min
Standby power input	117.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	251 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	141 %
COP	3.38
Heating up time	1:14 h:min
Standby power input	44.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	253 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.1 kW	8.49 kW
El input	1.86 kW	2.53 kW
COP	4.9	3.35

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	141 %
Prated	13.67 kW	13.37 kW
SCOP	4.52	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12 kW	11.8 kW
COP Tj = -7°C	2.9	2.3
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.4 kW	7.5 kW
COP Tj = +2°C	4.3	3.4
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.7 kW	6.5 kW
COP Tj = +7°C	6.1	4.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.3 kW	5.7 kW
COP Tj = 12°C	7.3	6.3
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	12.1 kW	11.8 kW
COP Tj = Tbiv	2.9	2.3
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	10.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	2.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.57 kW	2.67 kW
Annual energy consumption Q <sub>he</sub>	6242 kWh	7670 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	141 %	117 %
Prated	11.83 kW	11.17 kW
SCOP	3.61	2.99
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-20 °C	-20 °C
P <sub>d,h</sub> T <sub>j</sub> = -7°C	12.1 kW	11.7 kW
COP T <sub>j</sub> = -7°C	2.8	2.4
C <sub>d,h</sub> T <sub>j</sub> = -7 °C	1	1
P <sub>d,h</sub> T <sub>j</sub> = +2°C	7.6 kW	7.5 kW
COP T <sub>j</sub> = +2°C	4.3	3.5
C <sub>d,h</sub> T <sub>j</sub> = +2 °C	1	1
P <sub>d,h</sub> T <sub>j</sub> = +7°C	6.7 kW	6.6 kW
COP T <sub>j</sub> = +7°C	6.1	5
C <sub>d,h</sub> T <sub>j</sub> = +7 °C	1	1
P <sub>d,h</sub> T <sub>j</sub> = 12°C	5.4 kW	5.7 kW
COP T <sub>j</sub> = 12°C	7.3	6.5
C <sub>d,h</sub> T <sub>j</sub> = +12 °C	1	1
P <sub>d,h</sub> T <sub>j</sub> = T <sub>biv</sub>	9.7 kW	9.1 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.4	2
P <sub>d,h</sub> T <sub>j</sub> = TOL or P <sub>d,h</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.4 kW	7.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.2	1.7
C <sub>d,h</sub> T <sub>j</sub> = TOL or P <sub>d,h</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1	1
P <sub>off</sub>	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.83 kW	11.17 kW
Annual energy consumption Q <sub>he</sub>	8080 kWh	10386 kWh

#### EN 12102-1 | Warmer Climate



	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	175 %
Prated	7.54 kW	7.56 kW
SCOP	6.06	4.46
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.5 kW	7.6 kW
COP Tj = +2°C	3.8	2.8
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	6.6 kW	6.1 kW
COP Tj = +7°C	5.4	3.8
Cdh Tj = +7 °C	1	1
Pdh Tj = 12°C	5.6 kW	5.6 kW
COP Tj = 12°C	7.3	5.6
Cdh Tj = +12 °C	1	1
Pdh Tj = Tbiv	7.5 kW	7.6 kW
COP Tj = Tbiv	3.8	2.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.5 kW	7.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.8	2.8
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
Poff	0 W	0 W
PTO	14 W	14 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1662 kWh	2266 kWh