

## Subtype Bosch Compress 3000 AWS-8

Certificate Holder	Bosch Thermotechnik GmbH
Address	Junkersstraße 20 - 24
ZIP	73249
City	Wernau
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Bosch Compress 3000 AWS-8
Registration number	011-1W0135
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	1.6 kg
Certification Date	18.07.2017

## Model Bosch Compress 3000 AWS-8 E

Model name	Bosch Compress 3000 AWS-8 E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	No

## 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	3.23 kW	7.96 kW
El input	0.72 kW	3.60 kW
COP	4.50	2.21

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	131 %
Prated	7.43 kW	5.20 kW
SCOP	4.74	3.35
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	6.63 kW	4.55 kW
COP Tj = -7°C	3.08	2.00
Cdh Tj = -7 °C	0.994	0.994
Pdh Tj = +2°C	4.00 kW	3.94 kW
COP Tj = +2°C	4.75	3.41

Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	3.66 kW	3.46 kW
COP Tj = +7°C	5.96	4.41
Cdh Tj = +7 °C	0.979	0.984
Pdh Tj = 12°C	3.99 kW	4.14 kW
COP Tj = 12°C	6.82	5.84
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	7.44 kW	5.02 kW
COP Tj = Tbiv	2.51	1.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	5.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	5.20 kW
Annual energy consumption Qhe	3236 kWh	3206 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155 %	120 %
Prated	6.60 kW	6.60 kW
SCOP	3.94	3.08
Tbiv	-18 °C	-17 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	3.86 kW	4.41 kW
COP Tj = -7°C	3.22	2.52
Cdh Tj = -7 °C	0.989	0.993
Pdh Tj = +2°C	3.16 kW	2.99 kW
COP Tj = +2°C	5.06	3.90
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	3.68 kW	3.52 kW
COP Tj = +7°C	5.84	4.81
Cdh Tj = +7 °C	0.980	0.982
Pdh Tj = 12°C	4.14 kW	4.13 kW

COP Tj = 12°C	7.09	6.02
Cdh Tj = +12 °C	0.978	0.981
Pdh Tj = Tbiv	5.93 kW	5.72 kW
COP Tj = Tbiv	2.15	1.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.93 kW	5.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.60 kW	6.60 kW
Annual energy consumption Qhe	4124 kWh	5285 kWh
Pdh Tj = -15°C (if TOL	5.45	5.32
COP Tj = -15°C (if TOL	2.65	1.90
Cdh Tj = -15 °C	0.994	0.995

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	225 %	160 %
Prated	7.20 kW	6.10 kW
SCOP	5.70	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.28 kW	6.08 kW
COP Tj = +2°C	3.33	1.94
Cdh Tj = +2 °C	0.994	0.996
Pdh Tj = +7°C	4.72 kW	4.00 kW
COP Tj = +7°C	5.44	3.63
Cdh Tj = +7 °C	0.985	0.988
Pdh Tj = 12°C	4.01 kW	3.91 kW
COP Tj = 12°C	6.75	5.28
Cdh Tj = +12 °C	0.979	0.983
Pdh Tj = Tbiv	7.28 kW	6.08 kW
COP Tj = Tbiv	3.33	1.94

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.28 kW	6.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1686 kWh	2003 kWh

## Model Bosch Compress 3000 AWS-8 B

Model name	Bosch Compress 3000 AWS-8 B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	No

## 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	3.23 kW	7.96 kW
El input	0.72 kW	3.60 kW
COP	4.50	2.21

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	131 %
Prated	7.43 kW	5.20 kW
SCOP	4.74	3.35
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	6.63 kW	4.55 kW
COP Tj = -7°C	3.08	2.00
Cdh Tj = -7 °C	0.994	0.994
Pdh Tj = +2°C	4.00 kW	3.94 kW
COP Tj = +2°C	4.75	3.41

Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	3.66 kW	3.46 kW
COP Tj = +7°C	5.96	4.41
Cdh Tj = +7 °C	0.979	0.984
Pdh Tj = 12°C	3.99 kW	4.14 kW
COP Tj = 12°C	6.82	5.84
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	7.44 kW	5.02 kW
COP Tj = Tbiv	2.51	1.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	5.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3236 kWh	3206 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155 %	120 %
Prated	6.60 kW	6.60 kW
SCOP	3.94	3.08
Tbiv	-18 °C	-17 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	3.86 kW	4.41 kW
COP Tj = -7°C	3.22	2.52
Cdh Tj = -7 °C	0.989	0.993
Pdh Tj = +2°C	3.16 kW	2.99 kW
COP Tj = +2°C	5.06	3.90
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	3.68 kW	3.52 kW
COP Tj = +7°C	5.84	4.81
Cdh Tj = +7 °C	0.980	0.982
Pdh Tj = 12°C	4.14 kW	4.13 kW

COP Tj = 12°C	7.09	6.02
Cdh Tj = +12 °C	0.978	0.981
Pdh Tj = Tbiv	5.93 kW	5.72 kW
COP Tj = Tbiv	2.15	1.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.93 kW	5.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4124 kWh	5285 kWh
Pdh Tj = -15°C (if TOL	5.45	5.32
COP Tj = -15°C (if TOL	2.65	1.90
Cdh Tj = -15 °C	0.994	0.995

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	225 %	160 %
Prated	7.20 kW	6.10 kW
SCOP	5.70	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.28 kW	6.08 kW
COP Tj = +2°C	3.33	1.94
Cdh Tj = +2 °C	0.994	0.996
Pdh Tj = +7°C	4.72 kW	4.00 kW
COP Tj = +7°C	5.44	3.63
Cdh Tj = +7 °C	0.985	0.988
Pdh Tj = 12°C	4.01 kW	3.91 kW
COP Tj = 12°C	6.75	5.28
Cdh Tj = +12 °C	0.979	0.983
Pdh Tj = Tbiv	7.28 kW	6.08 kW
COP Tj = Tbiv	3.33	1.94



Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.28 kW	6.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1686 kWh	2003 kWh

## Model Bosch Compress 3000 AWS-8 M

Model name	Bosch Compress 3000 AWS-8 M
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.30
Heating up time	02:07 h:min
Standby power input	65.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	257 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	77 %
COP	1.73
Heating up time	02:49 h:min
Standby power input	118.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	257 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	114 %
COP	2.66
Heating up time	01:48 h:min
Standby power input	54.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	257 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	3.23 kW	7.96 kW
El input	0.72 kW	3.60 kW
COP	4.50	2.21

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	131 %
Prated	7.43 kW	5.20 kW
SCOP	4.74	3.35
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	6.63 kW	4.55 kW
COP Tj = -7°C	3.08	2.00
Cdh Tj = -7 °C	0.994	0.994
Pdh Tj = +2°C	4.00 kW	3.94 kW
COP Tj = +2°C	4.75	3.41
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	3.66 kW	3.46 kW
COP Tj = +7°C	5.96	4.41
Cdh Tj = +7 °C	0.979	0.984
Pdh Tj = 12°C	3.99 kW	4.14 kW
COP Tj = 12°C	6.82	5.84
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	7.44 kW	5.02 kW
COP Tj = Tbiv	2.51	1.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	5.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W

PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	5.20 kW
Annual energy consumption Q <sub>he</sub>	3236 kWh	3206 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	155 %	120 %
Prated	6.60 kW	6.60 kW
SCOP	3.94	3.08
T <sub>biv</sub>	-18 °C	-17 °C
TOL	-18 °C	-17 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.86 kW	4.41 kW
COP T <sub>j</sub> = -7°C	3.22	2.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.989	0.993
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.16 kW	2.99 kW
COP T <sub>j</sub> = +2°C	5.06	3.90
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.979	0.996
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.52 kW
COP T <sub>j</sub> = +7°C	5.84	4.81
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.982
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.14 kW	4.13 kW
COP T <sub>j</sub> = 12°C	7.09	6.02
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.978	0.981
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.93 kW	5.72 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.15	1.73
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>	5.93 kW	5.72 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.15	1.73
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>	0.995	0.996
WTOL	57 °C	57 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.60 kW	6.60 kW
Annual energy consumption Q <sub>he</sub>	4124 kWh	5285 kWh

Pdh Tj = -15°C (if TOL	5.45	1.90
COP Tj = -15°C (if TOL	2.65	1.90
Cdh Tj = -15 °C	0.994	0.995

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	225 %	160 %
Prated	7.20 kW	6.10 kW
SCOP	5.70	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.28 kW	6.08 kW
COP Tj = +2°C	3.33	1.94
Cdh Tj = +2 °C	0.994	0.996
Pdh Tj = +7°C	4.72 kW	4.00 kW
COP Tj = +7°C	5.44	3.63
Cdh Tj = +7 °C	0.985	0.988
Pdh Tj = 12°C	4.01 kW	3.91 kW
COP Tj = 12°C	6.75	5.28
Cdh Tj = +12 °C	0.979	0.983
Pdh Tj = Tbiv	7.28 kW	6.08 kW
COP Tj = Tbiv	3.33	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.28 kW	6.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1686 kWh	2003 kWh

## Model Bosch Compress 3000 AWS-8 MS

Model name	Bosch Compress 3000 AWS-8 MS
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	91 %
COP	2.11
Heating up time	02:04 h:min
Standby power input	69.7 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	236 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	75 %
COP	1.69
Heating up time	02:00 h:min
Standby power input	120.4 W
Reference hot water temperature	50.9 °C
Mixed water at 40°C	252 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	101 %
COP	2.34
Heating up time	01:46 h:min
Standby power input	66.7 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	252 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	3.23 kW	7.96 kW
El input	0.72 kW	3.60 kW
COP	4.50	2.21

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	131 %
Prated	7.43 kW	5.20 kW
SCOP	4.74	3.35
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	6.63 kW	4.55 kW
COP Tj = -7°C	3.08	2.00
Cdh Tj = -7 °C	0.994	0.994
Pdh Tj = +2°C	4.00 kW	3.94 kW
COP Tj = +2°C	4.75	3.41
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	3.66 kW	3.46 kW
COP Tj = +7°C	5.96	4.41
Cdh Tj = +7 °C	0.979	0.984
Pdh Tj = 12°C	3.99 kW	4.14 kW
COP Tj = 12°C	6.82	5.84
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	7.44 kW	5.02 kW
COP Tj = Tbiv	2.51	1.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	5.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W

PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	5.20 kW
Annual energy consumption Q <sub>he</sub>	3236 kWh	3206 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	155 %	120 %
Prated	6.60 kW	6.60 kW
SCOP	3.94	3.08
T <sub>biv</sub>	-18 °C	-17 °C
TOL	-18 °C	-17 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.86 kW	4.41 kW
COP T <sub>j</sub> = -7°C	3.22	2.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.989	0.993
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.16 kW	2.99 kW
COP T <sub>j</sub> = +2°C	5.06	3.90
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.979	0.983
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.68 kW	3.52 kW
COP T <sub>j</sub> = +7°C	5.84	4.81
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.982
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.14 kW	4.13 kW
COP T <sub>j</sub> = 12°C	7.09	6.02
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.978	0.981
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.93 kW	5.72 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.15	1.73
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>	5.93 kW	5.72 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.15	1.73
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>	0.995	0.996
WTOL	57 °C	57 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.60 kW	6.60 kW
Annual energy consumption Q <sub>he</sub>	4124 kWh	5285 kWh



Pdh Tj = -15°C (if TOL	5.45	5.32
COP Tj = -15°C (if TOL	2.65	1.90
Cdh Tj = -15 °C	0.994	0.995

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	225 %	160 %
Prated	7.20 kW	6.10 kW
SCOP	5.70	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.28 kW	6.08 kW
COP Tj = +2°C	3.33	1.94
Cdh Tj = +2 °C	0.994	0.996
Pdh Tj = +7°C	4.72 kW	4.00 kW
COP Tj = +7°C	5.44	3.63
Cdh Tj = +7 °C	0.985	0.988
Pdh Tj = 12°C	4.01 kW	3.91 kW
COP Tj = 12°C	6.75	5.28
Cdh Tj = +12 °C	0.979	0.983
Pdh Tj = Tbiv	7.28 kW	6.08 kW
COP Tj = Tbiv	3.33	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.28 kW	6.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.996
WTOL	57 °C	57 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	17 W	17 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1686 kWh	2003 kWh