


# CERTIFICATE

<b>Certificate holder</b>	<b>Bosch Thermotechnik GmbH Junkersstr. 20-24 73249 Wernau GERMANY</b>
<b>Production facility</b>	Tranas, Eschenburg, Aveiro
<b>Product</b>	Air/Water Heat pumps
<b>Type, Model</b>	Bosch CS5800i/6800iAW 10/12 OR
<b>Testing basis</b>	DIN EN 14511-1; DIN EN 14511-2; DIN EN 14511-3; DIN EN 14511-4:2019-07 DIN EN 14825:2019-07 DIN EN 12102-1:2018-02 DIN EN 16147:2017-08 European KEYMARK Scheme for Heat Pumps Version 12 (2023-03)
<b>Mark of conformity</b>	
<b>Registration No.</b>	011-1W0583
<b>Valid until</b>	2033-10-31
<b>Right of use</b>	This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number.  See annex for further information.

# ANNEX

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**Certificate** 011-1W0583 dated 2023-10-11

**Technical Data**

Models:

- CS5800iAW 10 ORE-T (60°C)
- CS5800iAW 10 ORE-T
- CS6800iAW 10 ORE-T
- CS5800iAW 12 ORE-T
- CS6800iAW 12 ORE-T
- CS5800iAW 12 ORMB-T (60°C)
- CS5800iAW 10 ORMB-T
- CS6800iAW 10 ORMB-T
- CS5800iAW 12 ORE-T (60°C)
- CS5800iAW 10 ORMB-T (60°C)
- CS5800iAW 12 ORMB-T
- CS6800iAW 12 ORMB-T
- CS5800iAW 10 ORM-T (60°C)
- CS5800iAW 10 ORM-T
- CS6800iAW 10 ORM-T
- CS5800iAW 12 ORM-T (60°C)
- CS5800iAW 12 ORM-T
- CS6800iAW 12 ORM-T

See Heat Pump KEYMARK database for detailed information

**Testing laboratory/  
Inspection body**

Fraunhofer Institut für  
Solare Energiesysteme (ISE)  
Auerstr. 8  
79108 Freiburg  
GERMANY

**Test report(s)** B-HPC-21-0897-6 dated 2023-01-12



## Subtype Bosch CS5800i/6800iAW 10/12 OR

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 CS5800i/6800iAW 10/12 OR
Registration number	011-1W0583
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.7 kg
Certification Date	11.10.2023
Testing basis	HP KEYMARK certification scheme rules V12

**Model CS5800iAW 10 ORE-T (60°C)**

Model name	CS5800iAW 10 ORE-T (60°C)
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	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	5.58 kW	3.49 kW
El input	1.15 kW	1.2 kW
COP	4.84	2.92

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	188 %	142 %
Prated	10 kW	10 kW
SCOP	4.77	3.64
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.04 kW	9.32 kW
COP Tj = -7°C	2.68	2.22
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.89 kW	5.47 kW
COP Tj = +2°C	4.84	3.60

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.64 kW	3.41 kW
COP Tj = +7°C	6.16	4.64
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.13 kW	3.01 kW
COP Tj = 12°C	7.92	6.02
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.04 kW	9.32 kW
COP Tj = Tbiv	2.68	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.23 kW
Annual energy consumption Qhe	4333 kWh	5681 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	172 %	130 %
Prated	10 kW	10 kW
SCOP	4.36	3.33
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.43 kW	5.93 kW
COP Tj = -7°C	3.68	2.67
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.62 kW	3.94 kW
COP Tj = +2°C	5.31	4.08
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.68 kW	2.48 kW
COP Tj = +7°C	6.89	5.35
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.88 kW

COP Tj = 12°C	7.87	6.21
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.09 kW	7.75 kW
COP Tj = Tbiv	2.58	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.69 kW
Annual energy consumption Qhe	5648 kWh	7392 kWh
Pdh Tj = -15°C (if TOL	8.09	7.75
COP Tj = -15°C (if TOL	2.58	2.08
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	244 %	171 %
Prated	10.6 kW	9.8 kW
SCOP	6.18	4.34
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.58 kW	9.8 kW
COP Tj = +2°C	2.95	2.13
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.97 kW
COP Tj = +7°C	5.23	3.59
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.86 kW
COP Tj = 12°C	8.39	5.95
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.58 kW	9.8 kW
COP Tj = Tbiv	2.95	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.58 kW	9.8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2292 kWh	3017 kWh

## Model CS5800iAW 10 ORE-T

Model name	CS5800iAW 10 ORE-T
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	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	5.58 kW	3.49 kW
El input	1.15 kW	1.2 kW
COP	4.84	2.92

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	142 %
Prated	10 kW	10 kW
SCOP	4.77	3.64
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.04 kW	9.32 kW
COP Tj = -7°C	2.68	2.22
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.89 kW	5.47 kW
COP Tj = +2°C	4.84	3.60



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.64 kW	3.41 kW
COP Tj = +7°C	6.16	4.64
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.13 kW	3.01 kW
COP Tj = 12°C	7.92	6.02
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.04 kW	9.32 kW
COP Tj = Tbiv	2.68	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.23 kW
Annual energy consumption Qhe	4333 kWh	5681 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	172 %	130 %
Prated	10 kW	10 kW
SCOP	4.36	3.33
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.43 kW	5.93 kW
COP Tj = -7°C	3.68	2.67
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.62 kW	3.94 kW
COP Tj = +2°C	5.31	4.08
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.68 kW	2.48 kW
COP Tj = +7°C	6.89	5.35
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.88 kW

COP Tj = 12°C	7.87	6.21
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.09 kW	7.75 kW
COP Tj = Tbiv	2.58	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.69 kW
Annual energy consumption Qhe	5648 kWh	7392 kWh
Pdh Tj = -15°C (if TOL	8.09	7.75
COP Tj = -15°C (if TOL	2.58	2.08
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	244 %	171 %
Prated	10.6 kW	9.8 kW
SCOP	6.18	4.34
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.58 kW	9.8 kW
COP Tj = +2°C	2.95	2.13
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.97 kW
COP Tj = +7°C	5.23	3.59
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.86 kW
COP Tj = 12°C	8.39	5.95
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.58 kW	9.8 kW
COP Tj = Tbiv	2.95	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.58 kW	9.8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2292 kWh	3017 kWh

## Model CS6800iAW 10 ORE-T

Model name	CS6800iAW 10 ORE-T
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	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	5.58 kW	3.49 kW
El input	1.15 kW	1.2 kW
COP	4.84	2.92

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	142 %
Prated	10 kW	10 kW
SCOP	4.77	3.64
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.04 kW	9.32 kW
COP Tj = -7°C	2.68	2.22
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.89 kW	5.47 kW
COP Tj = +2°C	4.84	3.60

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.64 kW	3.41 kW
COP Tj = +7°C	6.16	4.64
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.13 kW	3.01 kW
COP Tj = 12°C	7.92	6.02
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.04 kW	9.32 kW
COP Tj = Tbiv	2.68	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.23 kW
Annual energy consumption Qhe	4333 kWh	5681 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	172 %	130 %
Prated	10 kW	10 kW
SCOP	4.36	3.33
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.43 kW	5.93 kW
COP Tj = -7°C	3.68	2.67
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.62 kW	3.94 kW
COP Tj = +2°C	5.31	4.08
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.68 kW	2.48 kW
COP Tj = +7°C	6.89	5.35
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.88 kW

COP Tj = 12°C	7.87	6.21
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.09 kW	7.75 kW
COP Tj = Tbiv	2.58	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.69 kW
Annual energy consumption Qhe	5648 kWh	7392 kWh
Pdh Tj = -15°C (if TOL	8.09	7.75
COP Tj = -15°C (if TOL	2.58	2.08
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	244 %	171 %
Prated	10.6 kW	9.8 kW
SCOP	6.18	4.34
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.58 kW	9.8 kW
COP Tj = +2°C	2.95	2.13
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.97 kW
COP Tj = +7°C	5.23	3.59
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.86 kW
COP Tj = 12°C	8.39	5.95
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.58 kW	9.8 kW
COP Tj = Tbiv	2.95	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.58 kW	9.8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2292 kWh	3017 kWh

## Model CS5800iAW 12 ORE-T

Model name	CS5800iAW 12 ORE-T
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	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	5.58 kW	4.96 kW
El input	1.15 kW	1.69 kW
COP	4.84	2.93

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	184 %	137 %
Prated	12.2 kW	12 kW
SCOP	4.66	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.73 kW	11.11 kW
COP Tj = -7°C	2.44	1.91
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.70 kW	6.28 kW
COP Tj = +2°C	4.72	3.60



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.23 kW
COP Tj = +7°C	6.28	4.48
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.02 kW	3.67 kW
COP Tj = 12°C	8.12	5.99
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.73 kW	11.11 kW
COP Tj = Tbiv	2.44	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.82 kW	11.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.38 kW	0.84 kW
Annual energy consumption Qhe	5405 kWh	7071 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	128 %
Prated	12 kW	12 kW
SCOP	4.24	3.27
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.07 kW
COP Tj = -7°C	3.6	2.58
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.36 kW
COP Tj = +2°C	5.42	4.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.86 kW	2.59 kW
COP Tj = +7°C	5.35	5.35
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.1 kW	2.87 kW

COP Tj = 12°C	8.1	6.09
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.44 kW	9.85 kW
COP Tj = Tbiv	2.37	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.74 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.27	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.26 kW	4.98 kW
Annual energy consumption Qhe	6979 kWh	9035 kWh
Pdh Tj = -15°C (if TOL	10.44	9.85
COP Tj = -15°C (if TOL	2.37	1.94
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	235 %	170 %
Prated	12.6 kW	12.4 kW
SCOP	5.95	4.32
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.61 kW	12.43 kW
COP Tj = +2°C	2.64	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.91 kW
COP Tj = +7°C	5.17	3.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.45 kW	3.58 kW
COP Tj = 12°C	8.07	5.84
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.61 kW	12.43 kW
COP Tj = Tbiv	2.64	2.04

Pdh Tj = TOL or Pd <sub>h</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	12.61 kW	12.43 kW
COP Tj = TOL or COP Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.64	2.04
Cdh Tj = TOL or Pd <sub>h</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1	1
WTOL	75 °C	75 °C
P <sub>off</sub>	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Q <sub>he</sub>	2829 kWh	3834 kWh

**Model CS6800iAW 12 ORE-T**

Model name	CS6800iAW 12 ORE-T
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	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	5.58 kW	4.96 kW
El input	1.15 kW	1.69 kW
COP	4.84	2.93

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184 %	137 %
Prated	12.2 kW	12 kW
SCOP	4.66	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.73 kW	11.11 kW
COP Tj = -7°C	2.44	1.91
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.70 kW	6.28 kW
COP Tj = +2°C	4.72	3.60

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.23 kW
COP Tj = +7°C	6.28	4.48
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.02 kW	3.67 kW
COP Tj = 12°C	8.12	5.99
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.73 kW	11.11 kW
COP Tj = Tbiv	2.44	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.82 kW	11.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.38 kW	0.84 kW
Annual energy consumption Qhe	5405 kWh	7071 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	128 %
Prated	12 kW	12 kW
SCOP	4.24	3.27
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.07 kW
COP Tj = -7°C	3.6	2.58
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.36 kW
COP Tj = +2°C	5.42	4.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.86 kW	2.59 kW
COP Tj = +7°C	5.35	5.35
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.1 kW	2.87 kW

COP Tj = 12°C	8.1	6.09
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.44 kW	9.85 kW
COP Tj = Tbiv	2.37	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.74 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.27	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.26 kW	4.98 kW
Annual energy consumption Qhe	6979 kWh	9035 kWh
Pdh Tj = -15°C (if TOL	10.44	9.85
COP Tj = -15°C (if TOL	2.37	1.94
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	235 %	170 %
Prated	12.6 kW	12.4 kW
SCOP	5.95	4.32
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.61 kW	12.43 kW
COP Tj = +2°C	2.64	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.91 kW
COP Tj = +7°C	5.17	3.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.45 kW	3.58 kW
COP Tj = 12°C	8.07	5.84
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.61 kW	12.43 kW
COP Tj = Tbiv	2.64	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.61 kW	12.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2829 kWh	3834 kWh

**Model CS5800iAW 12 ORMB-T (60°C)**

Model name	CS5800iAW 12 ORMB-T (60°C)
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	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	5.57 kW	4.94 kW
El input	1.16 kW	1.7 kW
COP	4.81	2.91

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.10 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.69 kW	6.27 kW
COP Tj = +2°C	4.69	3.58



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.22 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.65 kW
COP Tj = 12°C	8.05	5.84
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.10 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.84 kW	11.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.36 kW	0.86 kW
Annual energy consumption Qhe	5428 kWh	7114 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	166 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.25
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.05 kW
COP Tj = -7°C	3.58	2.56
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.35 kW
COP Tj = +2°C	5.38	4.08
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.85 kW	2.57 kW
COP Tj = +7°C	5.3	5.18
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.09 kW	2.85 kW

COP Tj = 12°C	8.03	5.93
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.47 kW	9.83 kW
COP Tj = Tbiv	2.35	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.73 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.27 kW	5 kW
Annual energy consumption Qhe	7021 kWh	9107 kWh
Pdh Tj = -15°C (if TOL	10.47	9.83
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	234 %	169 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	12.42 kW
COP Tj = +2°C	2.66	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.89 kW
COP Tj = +7°C	5.13	3.66
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.79
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.67 kW	12.42 kW
COP Tj = Tbiv	2.66	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	12.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2847 kWh	3859 kWh

**Model CS5800iAW 10 ORMB-T**

Model name	CS5800iAW 10 ORMB-T
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	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	5.57 kW	3.46 kW
El input	1.16 kW	1.2 kW
COP	4.81	2.89

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.74	3.61
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.07 kW	9.29 kW
COP Tj = -7°C	2.66	2.21
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.46 kW
COP Tj = +2°C	4.81	3.58

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.40 kW
COP Tj = +7°C	6.12	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.99 kW
COP Tj = 12°C	7.85	5.87
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.07 kW	9.29 kW
COP Tj = Tbiv	2.66	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.26 kW
Annual energy consumption Qhe	4361 kWh	5728 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	171 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.3
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.42 kW	5.91 kW
COP Tj = -7°C	3.66	2.65
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.93 kW
COP Tj = +2°C	5.28	4.03
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.67 kW	2.46 kW
COP Tj = +7°C	6.84	5.18
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.86 kW

COP Tj = 12°C	7.81	6.05
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.08 kW	7.72 kW
COP Tj = Tbiv	2.57	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.72 kW
Annual energy consumption Qhe	5681 kWh	7474 kWh
Pdh Tj = -15°C (if TOL	8.08	7.72
COP Tj = -15°C (if TOL	2.57	2.07
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	243 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.57 kW	9.78 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.95 kW
COP Tj = +7°C	5.19	3.57
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.32	5.8
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.57 kW	9.78 kW
COP Tj = Tbiv	2.98	2.12

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.57 kW	9.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2306 kWh	3059 kWh

## Model CS6800iAW 10 ORMB-T

Model name	CS6800iAW 10 ORMB-T
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	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	5.57 kW	3.46 kW
El input	1.16 kW	1.2 kW
COP	4.81	2.89

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.74	3.61
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.07 kW	9.29 kW
COP Tj = -7°C	2.66	2.21
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.46 kW
COP Tj = +2°C	4.81	3.58



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.40 kW
COP Tj = +7°C	6.12	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.99 kW
COP Tj = 12°C	7.85	5.87
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.07 kW	9.29 kW
COP Tj = Tbiv	2.66	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.26 kW
Annual energy consumption Qhe	4361 kWh	5728 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	171 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.3
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.42 kW	5.91 kW
COP Tj = -7°C	3.66	2.65
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.93 kW
COP Tj = +2°C	5.28	4.03
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.67 kW	2.46 kW
COP Tj = +7°C	6.84	5.18
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.86 kW

COP Tj = 12°C	7.81	6.05
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.08 kW	7.72 kW
COP Tj = Tbiv	2.57	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.72 kW
Annual energy consumption Qhe	5681 kWh	7474 kWh
Pdh Tj = -15°C (if TOL	8.08	7.72
COP Tj = -15°C (if TOL	2.57	2.07
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	243 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.57 kW	9.78 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.95 kW
COP Tj = +7°C	5.19	3.57
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.32	5.8
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.57 kW	9.78 kW
COP Tj = Tbiv	2.98	2.12

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.57 kW	9.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2306 kWh	3059 kWh

## Model CS5800iAW 12 ORE-T (60°C)

Model name	CS5800iAW 12 ORE-T (60°C)
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	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	5.58 kW	4.96 kW
El input	1.15 kW	1.69 kW
COP	4.84	2.93

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	184 %	137 %
Prated	12.2 kW	12 kW
SCOP	4.66	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.73 kW	11.11 kW
COP Tj = -7°C	2.44	1.91
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.70 kW	6.28 kW
COP Tj = +2°C	4.72	3.60

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.23 kW
COP Tj = +7°C	6.28	4.48
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.02 kW	3.67 kW
COP Tj = 12°C	8.12	5.99
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.73 kW	11.11 kW
COP Tj = Tbiv	2.44	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.82 kW	11.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.38 kW	0.84 kW
Annual energy consumption Qhe	5405 kWh	7071 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	128 %
Prated	12 kW	12 kW
SCOP	4.24	3.27
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.07 kW
COP Tj = -7°C	3.6	2.58
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.36 kW
COP Tj = +2°C	5.42	4.1
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.86 kW	2.59 kW
COP Tj = +7°C	5.35	5.35
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.1 kW	2.87 kW

COP Tj = 12°C	8.1	6.09
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.44 kW	9.85 kW
COP Tj = Tbiv	2.37	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.74 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.27	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.26 kW	4.98 kW
Annual energy consumption Qhe	6979 kWh	9035 kWh
Pdh Tj = -15°C (if TOL	10.44	9.85
COP Tj = -15°C (if TOL	2.37	1.94
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	31 dB(A)	31 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	235 %	170 %
Prated	12.6 kW	12.4 kW
SCOP	5.95	4.32
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.61 kW	12.43 kW
COP Tj = +2°C	2.64	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.91 kW
COP Tj = +7°C	5.17	3.67
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.45 kW	3.58 kW
COP Tj = 12°C	8.07	5.84
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.61 kW	12.43 kW
COP Tj = Tbiv	2.64	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.61 kW	12.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2829 kWh	3834 kWh

**Model CS5800iAW 10 ORMB-T (60°C)**

Model name	CS5800iAW 10 ORMB-T (60°C)
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	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	5.57 kW	3.46 kW
El input	1.16 kW	1.2 kW
COP	4.81	2.89

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.74	3.61
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.07 kW	9.29 kW
COP Tj = -7°C	2.66	2.21
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.46 kW
COP Tj = +2°C	4.81	3.58



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.40 kW
COP Tj = +7°C	6.12	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.99 kW
COP Tj = 12°C	7.85	5.87
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.07 kW	9.29 kW
COP Tj = Tbiv	2.66	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	8.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.26 kW
Annual energy consumption Qhe	4361 kWh	5728 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	171 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.3
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.42 kW	5.91 kW
COP Tj = -7°C	3.66	2.65
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.93 kW
COP Tj = +2°C	5.28	4.03
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.67 kW	2.46 kW
COP Tj = +7°C	6.84	5.18
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.86 kW

COP Tj = 12°C	7.81	6.05
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.08 kW	7.72 kW
COP Tj = Tbiv	2.57	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.6 kW	6.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.4 kW	3.72 kW
Annual energy consumption Qhe	5681 kWh	7474 kWh
Pdh Tj = -15°C (if TOL	8.08	7.72
COP Tj = -15°C (if TOL	2.57	2.07
Cdh Tj = -15 °C	0.99	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	243 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.57 kW	9.78 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.42 kW	5.95 kW
COP Tj = +7°C	5.19	3.57
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.32	5.8
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.57 kW	9.78 kW
COP Tj = Tbiv	2.98	2.12

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.57 kW	9.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2306 kWh	3059 kWh

## Model CS5800iAW 12 ORMB-T

Model name	CS5800iAW 12 ORMB-T
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	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	5.57 kW	4.94 kW
El input	1.16 kW	1.7 kW
COP	4.81	2.91

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.10 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.69 kW	6.27 kW
COP Tj = +2°C	4.69	3.58

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.22 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.65 kW
COP Tj = 12°C	8.05	5.84
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.10 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.84 kW	11.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.36 kW	0.86 kW
Annual energy consumption Qhe	5428 kWh	7114 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	166 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.25
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.05 kW
COP Tj = -7°C	3.58	2.56
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.35 kW
COP Tj = +2°C	5.38	4.08
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.85 kW	2.57 kW
COP Tj = +7°C	5.3	5.18
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.09 kW	2.85 kW

COP Tj = 12°C	8.03	5.93
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.47 kW	9.83 kW
COP Tj = Tbiv	2.35	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.73 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.27 kW	5 kW
Annual energy consumption Qhe	7021 kWh	9107 kWh
Pdh Tj = -15°C (if TOL	10.47	9.83
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	234 %	169 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	12.42 kW
COP Tj = +2°C	2.66	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.89 kW
COP Tj = +7°C	5.13	3.66
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.79
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.67 kW	12.42 kW
COP Tj = Tbiv	2.66	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	12.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2847 kWh	3859 kWh

## Model CS6800iAW 12 ORMB-T

Model name	CS6800iAW 12 ORMB-T
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	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	5.57 kW	4.94 kW
El input	1.16 kW	1.7 kW
COP	4.81	2.91

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.10 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.69 kW	6.27 kW
COP Tj = +2°C	4.69	3.58



Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.22 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.65 kW
COP Tj = 12°C	8.05	5.84
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.10 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.84 kW	11.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.36 kW	0.86 kW
Annual energy consumption Qhe	5428 kWh	7114 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	166 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.25
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.05 kW
COP Tj = -7°C	3.58	2.56
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.72 kW	4.35 kW
COP Tj = +2°C	5.38	4.08
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.85 kW	2.57 kW
COP Tj = +7°C	5.3	5.18
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.09 kW	2.85 kW

COP Tj = 12°C	8.03	5.93
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.47 kW	9.83 kW
COP Tj = Tbiv	2.35	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.73 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.27 kW	5 kW
Annual energy consumption Qhe	7021 kWh	9107 kWh
Pdh Tj = -15°C (if TOL	10.47	9.83
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	234 %	169 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	12.42 kW
COP Tj = +2°C	2.66	2.04
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.89 kW
COP Tj = +7°C	5.13	3.66
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.79
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.67 kW	12.42 kW
COP Tj = Tbiv	2.66	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	12.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2847 kWh	3859 kWh

**Model CS5800iAW 10 ORM-T (60°C)**

Model name	CS5800iAW 10 ORM-T (60°C)
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.33
Heating up time	2:56 h:min
Standby power input	106 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	2.02
Heating up time	2:34 h:min
Standby power input	128.6 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	237 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.88
Heating up time	2:15 h:min
Standby power input	90 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	239 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	5.56 kW	3.44 kW
El input	1.16 kW	1.2 kW
COP	4.8	2.86

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.73	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.06 kW	9.27 kW
COP Tj = -7°C	2.66	2.20
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.45 kW
COP Tj = +2°C	4.81	3.58
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.39 kW
COP Tj = +7°C	6.11	4.57
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.98 kW
COP Tj = 12°C	7.84	5.86
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.06 kW	9.27 kW
COP Tj = Tbiv	2.66	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.28 kW	8.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	1.29 kW
Annual energy consumption Q <sub>he</sub>	4365 kWh	5742 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	170 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.29
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	6.41 kW	5.89 kW
COP T <sub>j</sub> = -7°C	3.66	2.65
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.61 kW	3.92 kW
COP T <sub>j</sub> = +2°C	5.27	4.02
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.97	0.98
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.67 kW	2.45 kW
COP T <sub>j</sub> = +7°C	6.83	5.17
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.95	0.96
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.05 kW	2.85 kW
COP T <sub>j</sub> = 12°C	7.8	6.04
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.95	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	8.08 kW	7.71 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.57	2.06
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>	6.59 kW	6.25 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.21	1.71
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>	0.99	1
WTOL	60 °C	60 °C
P <sub>off</sub>	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.41 kW	3.75 kW
Annual energy consumption Q <sub>he</sub>	5685 kWh	7492 kWh

Pdh Tj = -15°C (if TOL	8.08	7.71
COP Tj = -15°C (if TOL	2.57	2.06
Cdh Tj = -15 °C	0.99	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	242 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.56 kW	9.76 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.41 kW	5.93 kW
COP Tj = +7°C	5.19	3.56
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.31	5.79
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.56 kW	9.76 kW
COP Tj = Tbiv	2.98	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.56 kW	9.76 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2308 kWh	3067 kWh

**Model CS5800iAW 10 ORM-T**

Model name	CS5800iAW 10 ORM-T
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.33
Heating up time	2:56 h:min
Standby power input	106 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	2.02
Heating up time	2:34 h:min
Standby power input	128.6 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	237 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.88
Heating up time	2:15 h:min
Standby power input	90 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	239 l

**EN 14511-4 | Heating**

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.56 kW	3.44 kW
El input	1.16 kW	1.2 kW
COP	4.8	2.86

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.73	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.06 kW	9.27 kW
COP Tj = -7°C	2.66	2.20
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.45 kW
COP Tj = +2°C	4.81	3.58
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.39 kW
COP Tj = +7°C	6.11	4.57
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.98 kW
COP Tj = 12°C	7.84	5.86
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.06 kW	9.27 kW
COP Tj = Tbiv	2.66	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.28 kW	8.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	1.29 kW
Annual energy consumption Qhe	4365 kWh	5742 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	170 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.29
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.41 kW	5.89 kW
COP Tj = -7°C	3.66	2.65
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.92 kW
COP Tj = +2°C	5.27	4.02
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.67 kW	2.45 kW
COP Tj = +7°C	6.83	5.17
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.85 kW
COP Tj = 12°C	7.8	6.04
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.08 kW	7.71 kW
COP Tj = Tbiv	2.57	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.59 kW	6.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.41 kW	3.75 kW
Annual energy consumption Qhe	5685 kWh	7492 kWh

Pdh Tj = -15°C (if TOL	8.08	7.71
COP Tj = -15°C (if TOL	2.57	2.06
Cdh Tj = -15 °C	0.99	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	242 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.56 kW	9.76 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.41 kW	5.93 kW
COP Tj = +7°C	5.19	3.56
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.31	5.79
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.56 kW	9.76 kW
COP Tj = Tbiv	2.98	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.56 kW	9.76 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2308 kWh	3067 kWh

**Model CS6800iAW 10 ORM-T**

Model name	CS6800iAW 10 ORM-T
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.33
Heating up time	2:56 h:min
Standby power input	106 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	2.02
Heating up time	2:34 h:min
Standby power input	128.6 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	237 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.88
Heating up time	2:15 h:min
Standby power input	90 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	239 l

**EN 14511-4 | Heating**

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.56 kW	3.44 kW
El input	1.16 kW	1.2 kW
COP	4.8	2.86

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	10 kW	10 kW
SCOP	4.73	3.6
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.06 kW	9.27 kW
COP Tj = -7°C	2.66	2.20
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.88 kW	5.45 kW
COP Tj = +2°C	4.81	3.58
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.63 kW	3.39 kW
COP Tj = +7°C	6.11	4.57
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.12 kW	2.98 kW
COP Tj = 12°C	7.84	5.86
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	9.06 kW	9.27 kW
COP Tj = Tbiv	2.66	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.28 kW	8.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	1.29 kW
Annual energy consumption Qhe	4365 kWh	5742 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	170 %	129 %
Prated	10 kW	10 kW
SCOP	4.34	3.29
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.41 kW	5.89 kW
COP Tj = -7°C	3.66	2.65
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.92 kW
COP Tj = +2°C	5.27	4.02
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.67 kW	2.45 kW
COP Tj = +7°C	6.83	5.17
Cdh Tj = +7 °C	0.95	0.96
Pdh Tj = 12°C	3.05 kW	2.85 kW
COP Tj = 12°C	7.8	6.04
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	8.08 kW	7.71 kW
COP Tj = Tbiv	2.57	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.59 kW	6.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.41 kW	3.75 kW
Annual energy consumption Qhe	5685 kWh	7492 kWh

Pdh Tj = -15°C (if TOL	8.08	7.71
COP Tj = -15°C (if TOL	2.57	2.06
Cdh Tj = -15 °C	0.99	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	42 dB(A)	42 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	242 %	168 %
Prated	10.6 kW	9.8 kW
SCOP	6.14	4.27
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.56 kW	9.76 kW
COP Tj = +2°C	2.98	2.12
Cdh Tj = +2 °C	0.99	1
Pdh Tj = +7°C	6.41 kW	5.93 kW
COP Tj = +7°C	5.19	3.56
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.1 kW	2.84 kW
COP Tj = 12°C	8.31	5.79
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.56 kW	9.76 kW
COP Tj = Tbiv	2.98	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.56 kW	9.76 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	34 W	34 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2308 kWh	3067 kWh

**Model CS5800iAW 12 ORM-T (60°C)**

Model name	CS5800iAW 12 ORM-T (60°C)
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.34
Heating up time	2:12 h:min
Standby power input	100 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	1.99
Heating up time	2:24 h:min
Standby power input	170 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	238 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.87
Heating up time	2:03 h:min
Standby power input	90 W
Reference hot water temperature	53 °C
Mixed water at 40°C	244 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	5.56 kW	4.91 kW
El input	1.16 kW	1.7 kW
COP	4.8	2.89

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.07 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.68 kW	6.25 kW
COP Tj = +2°C	4.68	3.57
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.21 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.64 kW
COP Tj = 12°C	8.04	5.83
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.07 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.83 kW	11.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.37 kW	0.89 kW
Annual energy consumption Q <sub>he</sub>	5432 kWh	7130 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	165 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.24
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.3 kW	7.03 kW
COP T <sub>j</sub> = -7°C	3.58	2.56
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.71 kW	4.34 kW
COP T <sub>j</sub> = +2°C	5.38	4.07
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.85 kW	2.56 kW
COP T <sub>j</sub> = +7°C	5.3	5.17
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.97	0.96
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.09 kW	2.85 kW
COP T <sub>j</sub> = 12°C	8.02	5.92
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.95	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.47 kW	9.81 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.35	1.93
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>	6.72 kW	6.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.26	1.63
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>	0.99	1
WTOL	60 °C	60 °C
P <sub>off</sub>	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.28 kW	5.03 kW
Annual energy consumption Q <sub>he</sub>	7025 kWh	9125 kWh

Pdh Tj = -15°C (if TOL	10.47	9.81
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233 %	168 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.66 kW	12.4 kW
COP Tj = +2°C	2.66	2.03
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.87 kW
COP Tj = +7°C	5.13	3.65
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.78
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.66 kW	12.4 kW
COP Tj = Tbiv	2.66	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.66 kW	12.4 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	60 °C	60 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2848 kWh	3866 kWh

**Model CS5800iAW 12 ORM-T**

Model name	CS5800iAW 12 ORM-T
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.34
Heating up time	2:12 h:min
Standby power input	100 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	1.99
Heating up time	2:24 h:min
Standby power input	170 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	238 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.87
Heating up time	2:03 h:min
Standby power input	90 W
Reference hot water temperature	53 °C
Mixed water at 40°C	244 l

**EN 14511-4 | Heating**

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.56 kW	4.91 kW
El input	1.16 kW	1.7 kW
COP	4.8	2.89

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.07 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.68 kW	6.25 kW
COP Tj = +2°C	4.68	3.57
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.21 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.64 kW
COP Tj = 12°C	8.04	5.83
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.07 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.83 kW	11.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.37 kW	0.89 kW
Annual energy consumption Q <sub>he</sub>	5432 kWh	7130 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	165 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.24
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.3 kW	7.03 kW
COP T <sub>j</sub> = -7°C	3.58	2.56
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.71 kW	4.34 kW
COP T <sub>j</sub> = +2°C	5.38	4.07
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.85 kW	2.56 kW
COP T <sub>j</sub> = +7°C	5.3	5.17
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.97	0.96
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.09 kW	2.85 kW
COP T <sub>j</sub> = 12°C	8.02	5.92
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.95	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.47 kW	9.81 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.35	1.93
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>	6.72 kW	6.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.26	1.63
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>	0.99	1
WTOL	75 °C	75 °C
P <sub>off</sub>	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.28 kW	5.03 kW
Annual energy consumption Q <sub>he</sub>	7025 kWh	9125 kWh

Pdh Tj = -15°C (if TOL	10.47	9.81
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233 %	168 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.66 kW	12.4 kW
COP Tj = +2°C	2.66	2.03
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.87 kW
COP Tj = +7°C	5.13	3.65
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.78
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.66 kW	12.4 kW
COP Tj = Tbiv	2.66	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.66 kW	12.4 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2848 kWh	3866 kWh

**Model CS6800iAW 12 ORM-T**

Model name	CS6800iAW 12 ORM-T
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	No

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

Declared load profile	XL
Efficiency $\eta_{DHW}$	95 %
COP	2.34
Heating up time	2:12 h:min
Standby power input	100 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	235 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	83 %
COP	1.99
Heating up time	2:24 h:min
Standby power input	170 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	238 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	117 %
COP	2.87
Heating up time	2:03 h:min
Standby power input	90 W
Reference hot water temperature	53 °C
Mixed water at 40°C	244 l

**EN 14511-4 | Heating**

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.56 kW	4.91 kW
El input	1.16 kW	1.7 kW
COP	4.8	2.89

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	136 %
Prated	12.2 kW	12 kW
SCOP	4.64	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.69 kW	11.07 kW
COP Tj = -7°C	2.45	1.90
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.68 kW	6.25 kW
COP Tj = +2°C	4.68	3.57
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.10 kW	4.21 kW
COP Tj = +7°C	6.24	4.45
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.01 kW	3.64 kW
COP Tj = 12°C	8.04	5.83
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.69 kW	11.07 kW
COP Tj = Tbiv	2.45	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.83 kW	11.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W

PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.37 kW	0.89 kW
Annual energy consumption Qhe	5432 kWh	7130 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	165 %	127 %
Prated	12 kW	12 kW
SCOP	4.21	3.24
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.3 kW	7.03 kW
COP Tj = -7°C	3.58	2.56
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.71 kW	4.34 kW
COP Tj = +2°C	5.38	4.07
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.85 kW	2.56 kW
COP Tj = +7°C	5.3	5.17
Cdh Tj = +7 °C	0.97	0.96
Pdh Tj = 12°C	3.09 kW	2.85 kW
COP Tj = 12°C	8.02	5.92
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	10.47 kW	9.81 kW
COP Tj = Tbiv	2.35	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.72 kW	6.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.26	1.63
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.28 kW	5.03 kW
Annual energy consumption Qhe	7025 kWh	9125 kWh

Pdh Tj = -15°C (if TOL	10.47	9.81
COP Tj = -15°C (if TOL	2.35	1.93
Cdh Tj = -15 °C	1	1

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233 %	168 %
Prated	12.6 kW	12.4 kW
SCOP	5.91	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.66 kW	12.4 kW
COP Tj = +2°C	2.66	2.03
Cdh Tj = +2 °C	1	1
Pdh Tj = +7°C	8.66 kW	7.87 kW
COP Tj = +7°C	5.13	3.65
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.57 kW
COP Tj = 12°C	8	5.78
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	12.66 kW	12.4 kW
COP Tj = Tbiv	2.66	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.66 kW	12.4 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	1
WTOL	75 °C	75 °C
Poff	33 W	33 W
PTO	18 W	18 W
PSB	33 W	33 W
PCK	67 W	67 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2848 kWh	3866 kWh