Subtype Bosch Compress CS3400iAWS 6,8,10 OR-S

Certificate Holder	Bosch Thermotechnik GmbH
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Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Bosch Compress CS3400iAWS 6,8,10 OR-S
Registration number	011-1W0535
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.3 kg
Certification Date	10.06.2022
Testing basis	European KEYMARK Scheme for Heat Pumps Version 12 (2023-03)

Model CS3400iAWS 6 ORB-S	
Model name	CS3400iAWS 6 ORB-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

EN 12102-1 | Average Climate	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate	Low temperature	Medium temperature
ηs	182 %	126 %
Prated	6.00 kW	7.00 kW
SCOP	4.63	3.22
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	3.16 kW	3.87 kW
COP Tj = +2°C	4.69	3.24

Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.86 kW	2.60 kW
COP Tj = +7°C	6.04	4.41
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.16	5.82
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	4.69 kW	5.78 kW
COP Tj = Tbiv	2.94	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.54 kW	4.40 kW
Annual energy consumption Qhe	2678 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW

COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL	3.81	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Model CS3400iAWS 6 ORE-S	
Model name	CS3400iAWS 6 ORE-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	126 %
Prated	6.00 kW	7.00 kW
SCOP	4.63	3.22
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	3.16 kW	3.87 kW
COP Tj = +2°C	4.69	3.24

Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.86 kW	2.60 kW
COP Tj = +7°C	6.04	4.41
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.16	5.82
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	4.69 kW	5.78 kW
COP Tj = Tbiv	2.94	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.54 kW	4.40 kW
Annual energy consumption Qhe	2678 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW

COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL	3.81	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Model CS3400iAWS 6 ORM-S	
Model name	CS3400iAWS 6 ORM-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water	
EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l
EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l
EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	182 %	126 %
Prated	6.00 kW	7.00 kW
SCOP	4.63	3.22
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	3.16 kW	3.87 kW
COP Tj = +2°C	4.69	3.24
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.86 kW	2.60 kW
COP Tj = +7°C	6.04	4.41
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.16	5.82
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	4.69 kW	5.78 kW
COP Tj = Tbiv	2.94	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.54 kW	4.40 kW
Annual energy consumption Qhe	2678 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW
COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh

Pdh Tj = -15°C (if TOL	3.81	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Model CS3400iAWS 8 ORB-S	
Model name	CS3400iAWS 8 ORB-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	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	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW

COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL	5.23	3.89
COP Tj = -15°C (if TOL	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Model CS3400iAWS 8 ORE-S

Model name	CS3400iAWS 8 ORE-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	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	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW

COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL	5.23	3.89
COP Tj = -15°C (if TOL	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Model CS3400iAWS 8 ORM-S	
Model name	CS3400iAWS 8 ORM-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water	
EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l
EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l
EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 l
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh

Pdh Tj = -15°C (if TOL	5.23	3.89
COP Tj = -15°C (if TOL	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Model CS3400iAWS 10 ORB-S

Model name	CS3400iAWS 10 ORB-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	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	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	125 %
Prated	9.00 kW	8.00 kW
SCOP	4.53	3.21
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.79 kW	5.10 kW
COP Tj = -7°C	2.81	1.86
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.78 kW	4.58 kW
COP Tj = +2°C	4.35	3.35

Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.89 kW	2.57 kW
COP Tj = +7°C	6.47	4.29
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	3.53 kW	3.20 kW
COP Tj = 12°C	8.72	5.96
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	7.03 kW	6.10 kW
COP Tj = Tbiv	2.91	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154 %	107 %
Prated	8 kW	7.8 kW
SCOP	3.93	2.74
Tbiv	-14 °C	-10 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.74 kW	4.82 kW
COP Tj = -7°C	3.2	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.98 kW	2.84 kW
COP Tj = +2°C	5.01	3.64
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.71 kW	2.65 kW
COP Tj = +7°C	6.11	4.7
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW

COP Tj = 12°C	8.24	6.15
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.15 kW	5.08 kW
COP Tj = Tbiv	2.49	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.4 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption Qhe	5012 kWh	7014 kWh
Pdh Tj = -15°C (if TOL	5.95	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Model CS3400iAWS 10 ORE-S

Model name	CS3400iAWS 10 ORE-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	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	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	125 %
Prated	9.00 kW	8.00 kW
SCOP	4.53	3.21
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.79 kW	5.10 kW
COP Tj = -7°C	2.81	1.86
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.78 kW	4.58 kW
COP Tj = +2°C	4.35	3.35

Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.89 kW	2.57 kW
COP Tj = +7°C	6.47	4.29
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	3.53 kW	3.20 kW
COP Tj = 12°C	8.72	5.96
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	7.03 kW	6.10 kW
COP Tj = Tbiv	2.91	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154 %	107 %
Prated	8 kW	7.8 kW
SCOP	3.93	2.74
Tbiv	-14 °C	-10 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.74 kW	4.82 kW
COP Tj = -7°C	3.2	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.98 kW	2.84 kW
COP Tj = +2°C	5.01	3.64
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.71 kW	2.65 kW
COP Tj = +7°C	6.11	4.7
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW

COP Tj = 12°C	8.24	6.15
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.15 kW	5.08 kW
COP Tj = Tbiv	2.49	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.4 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption Qhe	5012 kWh	7014 kWh
Pdh Tj = -15°C (if TOL	5.95	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Model CS3400iAWS 10 ORM-S	
Model name	CS3400iAWS 10 ORM-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water	
EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l
EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l
EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 l
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	125 %
Prated	9.00 kW	8.00 kW
SCOP	4.53	3.21
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.79 kW	5.10 kW
COP Tj = -7°C	2.81	1.86
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.78 kW	4.58 kW
COP Tj = +2°C	4.35	3.35
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.89 kW	2.57 kW
COP Tj = +7°C	6.47	4.29
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	3.53 kW	3.20 kW
COP Tj = 12°C	8.72	5.96
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	7.03 kW	6.10 kW
COP Tj = Tbiv	2.91	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154 %	107 %
Prated	8 kW	7.8 kW
SCOP	3.93	2.74
Tbiv	-14 °C	-10 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.74 kW	4.82 kW
COP Tj = -7°C	3.2	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.98 kW	2.84 kW
COP Tj = +2°C	5.01	3.64
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.71 kW	2.65 kW
COP Tj = +7°C	6.11	4.7
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.24	6.15
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.15 kW	5.08 kW
COP Tj = Tbiv	2.49	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.4 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption Qhe	5012 kWh	7014 kWh

Pdh Tj = -15°C (if TOL	5.95	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Model CSH3400iAWS 6 OR-S	
Model name	CSH3400iAWS 6 OR-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	126 %
Prated	6.00 kW	7.00 kW
SCOP	4.63	3.22
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	3.16 kW	3.87 kW
COP Tj = +2°C	4.69	3.24

Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.86 kW	2.60 kW
COP Tj = +7°C	6.04	4.41
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.16	5.82
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	4.69 kW	5.78 kW
COP Tj = Tbiv	2.94	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.54 kW	4.40 kW
Annual energy consumption Qhe	2678 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW

COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL	3.81	3.89
COP Tj = -15°C (if TOL	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Model CSH3400iAWS 8 OR-S

Model name	CSH3400iAWS 8 OR-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	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	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24

Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW

COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL	5.23	3.89
COP Tj = -15°C (if TOL	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh