

Subtype Bosch CS5800iAW 5/7 OR250 MP-S

Certificate Holder	Bosch Thermotechnik GmbH
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Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Bosch CS5800iAW 5/7 OR250 MP-S
Registration number	011-1W0677
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.95 kg
Certification Date	28.08.2023
Testing basis	HP KEYMARK certification scheme rules V12

Model CS5800iAW 5 OR250 MP-S

Model name	CS5800iAW 5 OR250 MP-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	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	118 %
COP	2.77
Heating up time	3:15 h:min
Standby power input	87 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	359 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	75 %
COP	1.84
Heating up time	3:13 h:min
Standby power input	132.9 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	359 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	118 %
COP	3.06
Heating up time	3:09 h:min
Standby power input	98.1 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	359 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	2.83 kW	3.18 kW
El input	0.59 kW	1.18 kW
COP	4.81	2.7

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
η_s	169 %	130 %
Prated	6.20 kW	6.20 kW
SCOP	4.30	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.50 kW	5.60 kW
COP Tj = -7°C	2.59	2.01
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.06 kW	3.54 kW
COP Tj = +2°C	4.64	3.41
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.29 kW	2.24 kW
COP Tj = +7°C	6.07	4.85
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.95 kW	1.90 kW
COP Tj = 12°C	7.23	5.83
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	5.50 kW	5.60 kW
COP Tj = Tbiv	2.59	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.47 kW	5.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	16 W	16 W
PTO	16 W	16 W
PSB	16 W	16 W

PCK	31 W	31 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.73 kW	1.06 kW
Annual energy consumption Q _{he}	2977 kWh	3851 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
η_s	162 %	121 %
Prated	5.40 kW	5.30 kW
SCOP	4.12	3.10
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	3.46 kW	3.20 kW
COP T _j = -7°C	3.44	2.65
C _{dh} T _j = -7 °C	0.980	0.990
P _{dh} T _j = +2°C	2.08 kW	2.12 kW
COP T _j = +2°C	5.47	3.80
C _{dh} T _j = +2 °C	0.960	0.970
P _{dh} T _j = +7°C	1.75 kW	1.73 kW
COP T _j = +7°C	6.40	5.19
C _{dh} T _j = +7 °C	0.940	0.950
P _{dh} T _j = 12°C	1.93 kW	1.92 kW
COP T _j = 12°C	7.01	5.89
C _{dh} T _j = +12 °C	0.940	0.950
P _{dh} T _j = T _{biv}	4.64 kW	4.33 kW
COP T _j = T _{biv}	2.42	1.92
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	4.04 kW	3.69 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.11	1.60
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	75 °C	75 °C
P _{off}	16 W	16 W
PTO	16 W	16 W
PSB	16 W	16 W
PCK	31 W	31 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.36 kW	1.61 kW
Annual energy consumption Q _{he}	3232 kWh	4211 kWh

Pdh Tj = -15°C (if TOL	4.64	4.33
COP Tj = -15°C (if TOL	2.42	1.92
Cdh Tj = -15 °C	0.990	0.990

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
η_s	183 %	139 %
Prated	6.40 kW	5.90 kW
SCOP	4.65	3.55
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.43 kW	5.98 kW
COP Tj = +2°C	2.87	2.16
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.16 kW	3.87 kW
COP Tj = +7°C	4.24	3.22
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	1.95 kW	1.81 kW
COP Tj = 12°C	7.36	5.33
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	6.43 kW	5.98 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.43 kW	5.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	16 W	16 W
PTO	16 W	16 W
PSB	16 W	16 W
PCK	31 W	31 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1837 kWh	2221 kWh

Model CS5800iAW 7 OR250 MP-S

Model name	CS5800iAW 7 OR250 MP-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	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	103 %
COP	2.42
Heating up time	3:17 h:min
Standby power input	91 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	358 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	77 %
COP	1.88
Heating up time	3:13 h:min
Standby power input	131.6 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	358 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.82
Heating up time	3:08 h:min
Standby power input	92.4 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	358 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	2.83 kW	3.18 kW
El input	0.59 kW	1.18 kW
COP	4.81	2.7

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
η_s	161 %	131 %
Prated	6.60 kW	6.60 kW
SCOP	4.11	3.35
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.45 kW	5.98 kW
COP Tj = -7°C	2.61	2.09
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.52 kW	3.55 kW
COP Tj = +2°C	4.17	3.51
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.22 kW	2.34 kW
COP Tj = +7°C	6.15	4.51
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.85 kW	1.82 kW
COP Tj = 12°C	7.09	5.71
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	5.45 kW	5.98 kW
COP Tj = Tbiv	2.61	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.89 kW	5.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	32 W	32 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.71 kW	1.35 kW
Annual energy consumption Q _{he}	3319 kWh	4076 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
η_s	152 %	115 %
Prated	7.30 kW	6.60 kW
SCOP	3.88	2.96
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	4.08 kW	3.74 kW
COP T _j = -7°C	3.00	2.39
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	2.53 kW	2.41 kW
COP T _j = +2°C	5.20	3.68
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	1.87 kW	1.85 kW
COP T _j = +7°C	6.23	4.70
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	1.84 kW	1.81 kW
COP T _j = 12°C	7.00	5.49
C _{dh} T _j = +12 °C	0.940	0.950
P _{dh} T _j = T _{biv}	6.03 kW	5.40 kW
COP T _j = T _{biv}	2.38	1.97
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	5.05 kW	3.32 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.04	1.60
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	75 °C	75 °C
P _{off}	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	32 W	32 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.25 kW	3.28 kW
Annual energy consumption Q _{he}	4638 kWh	5505 kWh

Pdh Tj = -15°C (if TOL	6.03	5.40
COP Tj = -15°C (if TOL	2.38	1.97
Cdh Tj = -15 °C	0.990	0.990

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
η_s	188 %	140 %
Prated	7.10 kW	5.70 kW
SCOP	4.77	3.57
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.44 kW	5.94 kW
COP Tj = +2°C	3.00	2.15
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.32 kW	3.70 kW
COP Tj = +7°C	4.33	3.13
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	1.89 kW	1.86 kW
COP Tj = 12°C	7.35	5.65
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	6.44 kW	5.94 kW
COP Tj = Tbiv	3.00	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	5.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	2.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	32 W	32 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1988 kWh	2135 kWh