Subtype Bosch Compress 7800i LW 16	
Certificate Holder	Bosch Thermotechnik GmbH
Address	Junkersstraße 20 - 24
ZIP	73249
City	Wernau
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Bosch Compress 7800i LW 16
Registration number	011-1W0433
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R410A
Mass of Refrigerant	2.3 kg
Certification Date	08.12.2020
Testing basis	HP KEYMARK certification scheme rules rev. 10
Testing laboratory	RISE Research Institutes of Sweden

Model CS7800i LW 16 M (+MF)	
Model name	CS7800i LW 16 M (+MF)
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Brine
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	No

Brine/Water EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.05
Heating up time	1:09 h:min
Standby power input	110.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	206 l

EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.05
Heating up time	1:09 h:min
Standby power input	110.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	206 l

EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.05
Heating up time	1:09 h:min
Standby power input	110.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	206 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	15.54 kW	14.19 kW
El input	4.14 kW	5.68 kW
COP	3.75	2.50

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	202 %	154 %
Prated	15.53 kW	14.18 kW
SCOP	5.28	4.06
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.91 kW	12.81 kW
COP Tj = -7°C	4.07	2.81
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	8.93 kW	7.91 kW
COP Tj = +2°C	5.39	4.21
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.72 kW	5.40 kW
COP Tj = +7°C	6.04	4.72
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.89 kW	4.70 kW
COP Tj = 12°C	5.98	4.97
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.54 kW	14.19 kW
COP Tj = Tbiv	3.75	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6074 kWh	7218 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	161 %
Prated	15.53 kW	14.18 kW
SCOP	5.47	4.24
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.06 kW	8.96 kW
COP Tj = -7°C	5.18	3.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	6.20 kW	5.42 kW
COP Tj = +2°C	5.97	4.74
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.91 kW	4.76 kW
COP Tj = +7°C	6.07	5.09
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.88 kW	4.75 kW
COP Tj = 12°C	5.89	5.19
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.53 kW	14.19 kW
COP Tj = Tbiv	3.75	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6995 kWh	8251 kWh

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	204 %	155 %
Prated	15.53 kW	14.18 kW
SCOP	5.30	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.54 kW	14.19 kW
COP Tj = +2°C	3.75	2.46
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	9.99 kW	9.32 kW
COP Tj = +7°C	5.05	3.63
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	4.89 kW	4.71 kW
COP Tj = 12°C	5.98	4.98
Cdh Tj = +12 °C	0.900	0.990
Pdh Tj = Tbiv	15.54 kW	14.19 kW
COP Tj = Tbiv	3.75	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3916 kWh	4658 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency ηDHW	153 %
COP	3.70
Heating up time	0:53 h:min
Standby power input	33.2 W
Reference hot water temperature	46.3 °C
Mixed water at 40°C	201 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	20.43 kW	17.36 kW
El input	4.32 kW	5.53 kW
COP	4.73	3.14

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	289 %	212 %
Prated	20.43 kW	17.37 kW
SCOP	7.43	5.51
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	18.35 kW	14.99 kW
COP Tj = -7°C	5.21	3.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	11.74 kW	9.13 kW
COP Tj = +2°C	7.34	5.58
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.51 kW	6.15 kW
COP Tj = +7°C	9.29	6.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.43 kW	6.23 kW
COP Tj = 12°C	9.63	7.21
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	20.43 kW	17.36 kW
COP Tj = Tbiv	4.73	3.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.43 kW	17.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.73	3.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	71 °C	71 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	5681 kWh	6511 kWh

Model CS7800i LW 16 (+F)	
Model name	CS7800i LW 16 (+F)
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Brine
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	No

Brine/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	15.54 kW	14.19 kW
El input	4.14 kW	5.68 kW
COP	3.75	2.50

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	203 %	154 %
Prated	15.53 kW	14.18 kW
SCOP	5.28	4.06
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.91 kW	12.81 kW
COP Tj = -7°C	4.07	2.81
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	8.93 kW	7.91 kW
COP Tj = +2°C	5.39	4.21
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.72 kW	5.40 kW

COP Tj = +7°C	6.04	4.72
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.89 kW	4.70 kW
COP Tj = 12°C	5.98	4.97
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.54 kW	14.19 kW
COP Tj = Tbiv	3.75	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6074 kWh	7218 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	161 %
Prated	15.53 kW	14.18 kW
SCOP	5.47	4.24
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.06 kW	8.96 kW
COP Tj = -7°C	5.18	3.86
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	6.20 kW	5.42 kW
COP Tj = +2°C	5.97	4.74
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.91 kW	4.76 kW
COP Tj = +7°C	6.07	5.09
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.88 kW	4.75 kW
COP Tj = 12°C	5.89	5.19
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.53 kW	14.19 kW

COP Tj = Tbiv	3.75	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6995 kWh	8251 kWh

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	204 %	155 %
Prated	15.53 kW	14.18 kW
SCOP	5.30	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.54 kW	14.19 kW
COP Tj = +2°C	3.75	2.46
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	9.99 kW	9.32 kW
COP Tj = +7°C	5.05	3.63
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	4.89 kW	4.71 kW
COP Tj = 12°C	5.98	4.98
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.54 kW	14.19 kW
COP Tj = Tbiv	3.75	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.54 kW	14.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	71 °C	71 °C
Poff	11 W	11 W

PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3916 kWh	4658 kWh

Water/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	20.43 kW	17.36 kW
El input	4.32 kW	5.53 kW
COP	4.73	3.14

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	289 %	212 %
Prated	20.43 kW	17.37 kW
SCOP	7.43	5.51
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	18.35 kW	14.99 kW
COP Tj = -7°C	5.21	3.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	11.74 kW	9.13 kW
COP Tj = +2°C	7.34	5.58
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.51 kW	6.15 kW
COP Tj = +7°C	9.29	6.85
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.43 kW	6.23 kW
COP Tj = 12°C	9.63	7.21
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	20.43 kW	17.36 kW
COP Tj = Tbiv	4.73	3.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.43 kW	17.36 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.73	3.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	71 °C	71 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5681 kWh	6511 kWh