

Subtype Bosch Compress 3000 AWS-11/13/15

Certificate Holder	Bosch Thermotechnik GmbH
Address	Junkersstraße 20 - 24
ZIP	73249
City	Wernau
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Bosch Compress 3000 AWS-11/13/15
Registration number	011-1W0136
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.3 kg
Certification Date	26.09.2017

Model Bosch Compress 3000 AWS-11 E-S

Model name	Bosch Compress 3000 AWS-11 E-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	13.57 kW
El input	1.32 kW	5.75 kW
COP	4.92	2.36

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	128 %
Prated	11.02 kW	9.35 kW
SCOP	4.48	3.28
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	9.94 kW	8.39 kW
COP Tj = -7°C	2.81	2.01
Cdh Tj = -7 °C	0.998	0.998
Pdh Tj = +2°C	5.94 kW	5.03 kW
COP Tj = +2°C	4.61	3.21

Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	6.73 kW	6.55 kW
COP Tj = +7°C	5.55	4.43
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.11 kW	7.26 kW
COP Tj = 12°C	5.70	5.11
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.02 kW	9.35 kW
COP Tj = Tbiv	2.49	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.02 kW	9.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	9.35 kW
Annual energy consumption Qhe	5084 kWh	5889 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	137 %	120 %
Prated	12.00 kW	11.00 kW
SCOP	3.49	3.08
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	7.31 kW	6.68 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.997	0.997
Pdh Tj = +2°C	5.94 kW	5.59 kW
COP Tj = +2°C	4.65	4.05
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	6.56 kW	6.28 kW
COP Tj = +7°C	5.30	4.72
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.27 kW	7.06 kW

COP Tj = 12°C	5.92	5.38
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	10.72 kW	9.48 kW
COP Tj = Tbiv	2.15	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.72 kW	9.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	8480 kWh	8790 kWh
Pdh Tj = -15°C (if TOL	10.72	9.48
COP Tj = -15°C (if TOL	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	203 %	158 %
Prated	11.86 kW	10.35 kW
SCOP	5.15	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.86 kW	10.35 kW
COP Tj = +2°C	3.45	1.97
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.64 kW	6.64 kW
COP Tj = +7°C	4.84	3.68
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	7.25 kW	6.93 kW
COP Tj = 12°C	5.90	5.01
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.86 kW	10.35 kW
COP Tj = Tbiv	3.45	1.97

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.86 kW	10.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	1.97
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3079 kWh	3425 kWh

Model Bosch Compress 3000 AWS-11 B-S

Model name	Bosch Compress 3000 AWS-11 B-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	13.57 kW
El input	1.32 kW	5.75 kW
COP	4.92	2.36

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	128 %
Prated	11.02 kW	9.35 kW
SCOP	4.48	3.28
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	9.94 kW	8.39 kW
COP Tj = -7°C	2.81	2.01
Cdh Tj = -7 °C	0.998	0.998
Pdh Tj = +2°C	5.94 kW	5.03 kW
COP Tj = +2°C	4.61	3.21

Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	6.73 kW	6.55 kW
COP Tj = +7°C	5.55	4.43
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.11 kW	7.26 kW
COP Tj = 12°C	5.70	5.11
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.02 kW	9.35 kW
COP Tj = Tbiv	2.49	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.02 kW	9.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5084 kWh	5889 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	137 %	120 %
Prated	12.00 kW	11.00 kW
SCOP	3.49	3.08
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	7.31 kW	6.68 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.997	0.997
Pdh Tj = +2°C	5.94 kW	5.59 kW
COP Tj = +2°C	4.65	4.05
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	6.56 kW	6.28 kW
COP Tj = +7°C	5.30	4.72
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.27 kW	7.06 kW

COP Tj = 12°C	5.92	5.38
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	10.72 kW	9.48 kW
COP Tj = Tbiv	2.15	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.72 kW	9.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8480 kWh	8790 kWh
Pdh Tj = -15°C (if TOL	10.72	9.48
COP Tj = -15°C (if TOL	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	203 %	158 %
Prated	11.86 kW	10.35 kW
SCOP	5.15	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.86 kW	10.35 kW
COP Tj = +2°C	3.45	1.97
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.64 kW	6.64 kW
COP Tj = +7°C	4.84	3.68
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	7.25 kW	6.93 kW
COP Tj = 12°C	5.90	5.01
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.86 kW	10.35 kW
COP Tj = Tbiv	3.45	1.97

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.86 kW	10.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	1.97
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3079 kWh	3425 kWh

Model Bosch Compress 3000 AWS-11 M-S

Model name	Bosch Compress 3000 AWS-11 M-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.92
Heating up time	01:38 h:min
Standby power input	70.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	267 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	69 %
COP	1.57
Heating up time	01:29 h:min
Standby power input	114.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	108 %
COP	2.52
Heating up time	01:01 h:min
Standby power input	55.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	253 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	6.48 kW	13.57 kW
El input	1.32 kW	5.75 kW
COP	4.92	2.36

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	128 %
P _{rated}	11.02 kW	9.35 kW
SCOP	4.48	3.28
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	9.94 kW	8.39 kW
COP T _j = -7°C	2.81	2.01
C _{dh} T _j = -7 °C	0.998	0.998
P _{dh} T _j = +2°C	5.94 kW	5.03 kW
COP T _j = +2°C	4.61	3.21
C _{dh} T _j = +2 °C	0.995	0.996
P _{dh} T _j = +7°C	6.73 kW	6.55 kW
COP T _j = +7°C	5.55	4.43
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.11 kW	7.26 kW
COP T _j = 12°C	5.70	5.11
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	11.02 kW	9.35 kW
COP T _j = T _{biv}	2.49	1.65
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	11.02 kW	9.35 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.49	1.65
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.998	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	9.35 kW
Annual energy consumption Qhe	5084 kWh	5889 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	137 %	120 %
Prated	12.00 kW	11.00 kW
SCOP	3.49	3.08
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	7.31 kW	6.68 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.997	0.997
Pdh Tj = +2°C	5.94 kW	5.59 kW
COP Tj = +2°C	4.65	4.05
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	6.56 kW	6.28 kW
COP Tj = +7°C	5.30	4.72
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.27 kW	7.06 kW
COP Tj = 12°C	5.92	5.38
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	10.72 kW	9.48 kW
COP Tj = Tbiv	2.15	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.72 kW	9.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	8480 kWh	8790 kWh

Pdh Tj = -15°C (if TOL)	10.72	1.85
COP Tj = -15°C (if TOL)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	203 %	158 %
Prated	11.86 kW	10.35 kW
SCOP	5.15	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.86 kW	10.35 kW
COP Tj = +2°C	3.45	1.97
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.64 kW	6.64 kW
COP Tj = +7°C	4.84	3.68
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	7.25 kW	6.93 kW
COP Tj = 12°C	5.90	5.01
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.86 kW	10.35 kW
COP Tj = Tbiv	3.45	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.86 kW	10.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	1.97
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3079 kWh	3425 kWh

Model Bosch Compress 3000 AWS-11 MS-S

Model name	Bosch Compress 3000 AWS-11 MS-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	76 %
COP	1.76
Heating up time	01:36 h:min
Standby power input	75.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	67 %
COP	1.54
Heating up time	01:04 h:min
Standby power input	116.3 W
Reference hot water temperature	50.6 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	95 %
COP	2.22
Heating up time	01:00 h:min
Standby power input	68.0 W
Reference hot water temperature	50.3 °C
Mixed water at 40°C	248 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	6.48 kW	13.57 kW
El input	1.32 kW	5.75 kW
COP	4.92	2.36

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	128 %
P _{rated}	11.02 kW	9.35 kW
SCOP	4.48	3.28
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	9.94 kW	8.39 kW
COP T _j = -7°C	2.81	2.01
C _{dh} T _j = -7 °C	0.998	0.998
P _{dh} T _j = +2°C	5.94 kW	5.03 kW
COP T _j = +2°C	4.61	3.21
C _{dh} T _j = +2 °C	0.995	0.996
P _{dh} T _j = +7°C	6.73 kW	6.55 kW
COP T _j = +7°C	5.55	4.43
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.11 kW	7.26 kW
COP T _j = 12°C	5.70	5.11
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	11.02 kW	9.35 kW
COP T _j = T _{biv}	2.49	1.65
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	11.02 kW	9.35 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.49	1.65
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.998	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	9.35 kW
Annual energy consumption Qhe	5084 kWh	5889 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	137 %	120 %
Prated	12.00 kW	11.00 kW
SCOP	3.49	3.08
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	7.31 kW	6.68 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.997	0.997
Pdh Tj = +2°C	5.94 kW	5.59 kW
COP Tj = +2°C	4.65	4.05
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	6.56 kW	6.28 kW
COP Tj = +7°C	5.30	4.72
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.27 kW	7.06 kW
COP Tj = 12°C	5.92	5.38
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	10.72 kW	9.48 kW
COP Tj = Tbiv	2.15	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.72 kW	9.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.15	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.00 kW	11.00 kW
Annual energy consumption Qhe	8480 kWh	8790 kWh

Pdh Tj = -15°C (if TOL)	10.72	9.48
COP Tj = -15°C (if TOL)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	203 %	158 %
Prated	11.86 kW	10.35 kW
SCOP	5.15	4.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.86 kW	10.35 kW
COP Tj = +2°C	3.45	1.97
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.64 kW	6.64 kW
COP Tj = +7°C	4.84	3.68
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	7.25 kW	6.93 kW
COP Tj = 12°C	5.90	5.01
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.86 kW	10.35 kW
COP Tj = Tbiv	3.45	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.86 kW	10.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.45	1.97
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3079 kWh	3425 kWh

Model Bosch Compress 3000 AWS-11 E-T

Model name	Bosch Compress 3000 AWS-11 E-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
COP	4.85	2.37

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	126 %
Prated	11.70 kW	9.01 kW
SCOP	4.62	3.22
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.04 kW	7.98 kW
COP Tj = -7°C	2.85	2.04
Cdh Tj = -7 °C	0.993	0.993
Pdh Tj = +2°C	6.24 kW	5.04 kW
COP Tj = +2°C	4.69	3.19

Cdh Tj = +2 °C	0.980	0.984
Pdh Tj = +7°C	6.79 kW	6.15 kW
COP Tj = +7°C	5.82	4.07
Cdh Tj = +7 °C	0.978	0.983
Pdh Tj = 12°C	7.62 kW	7.56 kW
COP Tj = 12°C	6.94	5.73
Cdh Tj = +12 °C	0.976	0.980
Pdh Tj = Tbiv	11.70 kW	9.01 kW
COP Tj = Tbiv	2.72	1.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.70 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5234 kWh	5777 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	112 %
Prated	11.40 kW	10.10 kW
SCOP	3.72	2.87
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	6.78 kW	6.19 kW
COP Tj = -7°C	3.48	2.61
Cdh Tj = -7 °C	0.987	0.989
Pdh Tj = +2°C	5.73 kW	5.06 kW
COP Tj = +2°C	4.87	3.51
Cdh Tj = +2 °C	0.978	0.982
Pdh Tj = +7°C	6.79 kW	6.49 kW
COP Tj = +7°C	5.92	4.57
Cdh Tj = +7 °C	0.977	0.982
Pdh Tj = 12°C	7.63 kW	7.69 kW

COP Tj = 12°C	6.89	6.02
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	10.28 kW	9.01 kW
COP Tj = Tbiv	2.57	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.28 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.40 kW	10.10 kW
Annual energy consumption Qhe	7564 kWh	8660 kWh
Pdh Tj = -15°C (if TOL	10.28	9.01
COP Tj = -15°C (if TOL	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	215 %	154 %
Prated	11.88 kW	10.49 kW
SCOP	5.44	3.93
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.90 kW	10.50 kW
COP Tj = +2°C	3.29	2.13
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	7.53 kW	6.85 kW
COP Tj = +7°C	5.42	3.44
Cdh Tj = +7 °C	0.987	0.987
Pdh Tj = 12°C	7.52 kW	7.52 kW
COP Tj = 12°C	6.27	5.18
Cdh Tj = +12 °C	0.982	0.982
Pdh Tj = Tbiv	11.90 kW	10.50 kW
COP Tj = Tbiv	3.29	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.29	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2917 kWh	3563 kWh

Model Bosch Compress 3000 AWS-11 B-T

Model name	Bosch Compress 3000 AWS-11 B-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
COP	4.85	2.37

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	126 %
Prated	11.70 kW	9.01 kW
SCOP	4.62	3.22
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.04 kW	7.98 kW
COP Tj = -7°C	2.85	2.04
Cdh Tj = -7 °C	0.993	0.993
Pdh Tj = +2°C	6.24 kW	5.04 kW
COP Tj = +2°C	4.69	3.19

Cdh Tj = +2 °C	0.980	0.984
Pdh Tj = +7°C	6.79 kW	6.15 kW
COP Tj = +7°C	5.82	4.07
Cdh Tj = +7 °C	0.978	0.983
Pdh Tj = 12°C	7.62 kW	7.56 kW
COP Tj = 12°C	6.94	5.73
Cdh Tj = +12 °C	0.976	0.980
Pdh Tj = Tbiv	11.70 kW	9.01 kW
COP Tj = Tbiv	2.72	1.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.70 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5234 kWh	5777 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	112 %
Prated	11.40 kW	10.10 kW
SCOP	3.72	2.87
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	6.78 kW	6.19 kW
COP Tj = -7°C	3.48	2.61
Cdh Tj = -7 °C	0.987	0.989
Pdh Tj = +2°C	5.73 kW	5.06 kW
COP Tj = +2°C	4.87	3.51
Cdh Tj = +2 °C	0.978	0.982
Pdh Tj = +7°C	6.79 kW	6.49 kW
COP Tj = +7°C	5.92	4.57
Cdh Tj = +7 °C	0.977	0.982
Pdh Tj = 12°C	7.63 kW	7.69 kW

COP Tj = 12°C	6.89	6.02
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	10.28 kW	9.01 kW
COP Tj = Tbiv	2.57	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.28 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7564 kWh	8660 kWh
Pdh Tj = -15°C (if TOL	10.28	9.01
COP Tj = -15°C (if TOL	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	215 %	154 %
Prated	11.88 kW	10.49 kW
SCOP	5.44	3.93
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.90 kW	10.50 kW
COP Tj = +2°C	3.29	2.13
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	7.53 kW	6.85 kW
COP Tj = +7°C	5.42	3.44
Cdh Tj = +7 °C	0.987	0.987
Pdh Tj = 12°C	7.52 kW	7.52 kW
COP Tj = 12°C	6.27	5.18
Cdh Tj = +12 °C	0.982	0.982
Pdh Tj = Tbiv	11.90 kW	10.50 kW
COP Tj = Tbiv	3.29	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.29	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2917 kWh	3563 kWh

Model Bosch Compress 3000 AWS-11 M-T

Model name	Bosch Compress 3000 AWS-11 M-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.89
Heating up time	01:20 h:min
Standby power input	80.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.69
Heating up time	01:32 h:min
Standby power input	130.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	87 %
COP	2.03
Heating up time	01:03 h:min
Standby power input	70.0 W
Reference hot water temperature	51.5 °C
Mixed water at 40°C	254 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	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
COP	4.85	2.37

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	126 %
P _{rated}	11.70 kW	9.01 kW
SCOP	4.62	3.22
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.04 kW	7.98 kW
COP T _j = -7°C	2.85	2.04
C _{dh} T _j = -7 °C	0.993	0.993
P _{dh} T _j = +2°C	6.24 kW	5.04 kW
COP T _j = +2°C	4.69	3.19
C _{dh} T _j = +2 °C	0.980	0.984
P _{dh} T _j = +7°C	6.79 kW	6.15 kW
COP T _j = +7°C	5.82	4.07
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	7.62 kW	7.56 kW
COP T _j = 12°C	6.94	5.73
C _{dh} T _j = +12 °C	0.976	0.980
P _{dh} T _j = T _{biv}	11.70 kW	9.01 kW
COP T _j = T _{biv}	2.72	1.62
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	11.70 kW	9.01 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.72	1.62
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.994	0.995
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5234 kWh	5777 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	146 %	112 %
Prated	11.40 kW	10.10 kW
SCOP	3.72	2.87
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	6.78 kW	6.19 kW
COP Tj = -7°C	3.48	2.61
Cdh Tj = -7 °C	0.987	0.989
Pdh Tj = +2°C	5.73 kW	5.06 kW
COP Tj = +2°C	4.87	3.51
Cdh Tj = +2 °C	0.978	0.982
Pdh Tj = +7°C	6.79 kW	6.49 kW
COP Tj = +7°C	5.92	4.57
Cdh Tj = +7 °C	0.977	0.982
Pdh Tj = 12°C	7.63 kW	7.69 kW
COP Tj = 12°C	6.89	6.02
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	10.28 kW	9.01 kW
COP Tj = Tbiv	2.57	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.28 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.40 kW	10.10 kW
Annual energy consumption Qhe	7564 kWh	8660 kWh

Pdh Tj = -15°C (if TOL)	10.28	1.87
COP Tj = -15°C (if TOL)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	215 %	154 %
Prated	11.88 kW	10.49 kW
SCOP	5.44	3.93
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.90 kW	10.50 kW
COP Tj = +2°C	3.29	2.13
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	7.53 kW	6.85 kW
COP Tj = +7°C	5.42	3.44
Cdh Tj = +7 °C	0.987	0.987
Pdh Tj = 12°C	7.52 kW	7.52 kW
COP Tj = 12°C	6.27	5.18
Cdh Tj = +12 °C	0.982	0.982
Pdh Tj = Tbiv	11.90 kW	10.50 kW
COP Tj = Tbiv	3.29	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.29	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2917 kWh	3563 kWh

Model Bosch Compress 3000 AWS-11 MS-T

Model name	Bosch Compress 3000 AWS-11 MS-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.74
Heating up time	01:18 h:min
Standby power input	85.7 W
Reference hot water temperature	51.1 °C
Mixed water at 40°C	236 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	74 %
COP	1.66
Heating up time	01:05 h:min
Standby power input	132.6 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	77 %
COP	1.79
Heating up time	01:02 h:min
Standby power input	86.5 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	249 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	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
COP	4.85	2.37

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	182 %	126 %
P _{rated}	11.70 kW	9.01 kW
SCOP	4.62	3.22
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.04 kW	7.98 kW
COP T _j = -7°C	2.85	2.04
C _{dh} T _j = -7 °C	0.993	0.993
P _{dh} T _j = +2°C	6.24 kW	5.04 kW
COP T _j = +2°C	4.69	3.19
C _{dh} T _j = +2 °C	0.980	0.984
P _{dh} T _j = +7°C	6.79 kW	6.15 kW
COP T _j = +7°C	5.82	4.07
C _{dh} T _j = +7 °C	0.978	0.983
P _{dh} T _j = 12°C	7.62 kW	7.56 kW
COP T _j = 12°C	6.94	5.73
C _{dh} T _j = +12 °C	0.976	0.980
P _{dh} T _j = T _{biv}	11.70 kW	9.01 kW
COP T _j = T _{biv}	2.72	1.62
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	11.70 kW	9.01 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.72	1.62
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.994	0.995
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5234 kWh	5777 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	146 %	112 %
Prated	11.40 kW	10.10 kW
SCOP	3.72	2.87
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	6.78 kW	6.19 kW
COP Tj = -7°C	3.48	2.61
Cdh Tj = -7 °C	0.987	0.989
Pdh Tj = +2°C	5.73 kW	5.06 kW
COP Tj = +2°C	4.87	3.51
Cdh Tj = +2 °C	0.978	0.982
Pdh Tj = +7°C	6.79 kW	6.49 kW
COP Tj = +7°C	5.92	4.57
Cdh Tj = +7 °C	0.977	0.982
Pdh Tj = 12°C	7.63 kW	7.69 kW
COP Tj = 12°C	6.89	6.02
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	10.28 kW	9.01 kW
COP Tj = Tbiv	2.57	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.28 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.40 kW	10.10 kW
Annual energy consumption Qhe	7564 kWh	8660 kWh

Pdh Tj = -15°C (if TOL)	10.28	9.01
COP Tj = -15°C (if TOL)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	215 %	154 %
Prated	11.88 kW	10.49 kW
SCOP	5.44	3.93
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.90 kW	10.50 kW
COP Tj = +2°C	3.29	2.13
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = +7°C	7.53 kW	6.85 kW
COP Tj = +7°C	5.42	3.44
Cdh Tj = +7 °C	0.987	0.987
Pdh Tj = 12°C	7.52 kW	7.52 kW
COP Tj = 12°C	6.27	5.18
Cdh Tj = +12 °C	0.982	0.982
Pdh Tj = Tbiv	11.90 kW	10.50 kW
COP Tj = Tbiv	3.29	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	10.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.29	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2917 kWh	3563 kWh

Model Bosch Compress 3000 AWS-13 E-S

Model name	Bosch Compress 3000 AWS-13 E-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
COP	4.92	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
Prated	13.04 kW	11.50 kW
SCOP	4.35	3.43
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	10.79 kW	10.00 kW
COP Tj = -7°C	2.74	1.96
Cdh Tj = -7 °C	0.998	0.999
Pdh Tj = +2°C	6.91 kW	6.01 kW
COP Tj = +2°C	4.30	3.47

Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	6.61 kW	6.56 kW
COP Tj = +7°C	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW

COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL	10.95	9.94
COP Tj = -15°C (if TOL	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-13 B-S

Model name	Bosch Compress 3000 AWS-13 B-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
COP	4.92	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
Prated	13.04 kW	11.50 kW
SCOP	4.35	3.43
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	10.79 kW	10.00 kW
COP Tj = -7°C	2.74	1.96
Cdh Tj = -7 °C	0.998	0.999
Pdh Tj = +2°C	6.91 kW	6.01 kW
COP Tj = +2°C	4.30	3.47

Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	6.61 kW	6.56 kW
COP Tj = +7°C	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW

COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL	10.95	9.94
COP Tj = -15°C (if TOL	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-13 M-S

Model name	Bosch Compress 3000 AWS-13 M-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.92
Heating up time	01:38 h:min
Standby power input	70.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	267 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	69 %
COP	1.57
Heating up time	01:29 h:min
Standby power input	114.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	108 %
COP	2.52
Heating up time	01:01 h:min
Standby power input	55.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	253 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	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
COP	4.92	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
P _{rated}	13.04 kW	11.50 kW
SCOP	4.35	3.43
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	10.79 kW	10.00 kW
COP T _j = -7°C	2.74	1.96
C _{dh} T _j = -7 °C	0.998	0.999
P _{dh} T _j = +2°C	6.91 kW	6.01 kW
COP T _j = +2°C	4.30	3.47
C _{dh} T _j = +2 °C	0.996	0.996
P _{dh} T _j = +7°C	6.61 kW	6.56 kW
COP T _j = +7°C	5.49	4.55
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.60 kW	7.24 kW
COP T _j = 12°C	6.62	5.20
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	13.05 kW	11.07 kW
COP T _j = T _{biv}	2.60	1.72
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.05 kW	11.07 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.60	1.72
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.999	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW
COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh

Pdh Tj = -15°C (if TOL)	10.95	1.75
COP Tj = -15°C (if TOL)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-13 MS-S

Model name	Bosch Compress 3000 AWS-13 MS-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	76 %
COP	1.76
Heating up time	01:36 h:min
Standby power input	75.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	67 %
COP	1.54
Heating up time	01:04 h:min
Standby power input	116.3 W
Reference hot water temperature	50.6 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	95 %
COP	2.22
Heating up time	01:00 h:min
Standby power input	68.0 W
Reference hot water temperature	50.3 °C
Mixed water at 40°C	248 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	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
COP	4.92	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
P _{rated}	13.04 kW	11.50 kW
SCOP	4.35	3.43
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	10.79 kW	10.00 kW
COP T _j = -7°C	2.74	1.96
C _{dh} T _j = -7 °C	0.998	0.999
P _{dh} T _j = +2°C	6.91 kW	6.01 kW
COP T _j = +2°C	4.30	3.47
C _{dh} T _j = +2 °C	0.996	0.996
P _{dh} T _j = +7°C	6.61 kW	6.56 kW
COP T _j = +7°C	5.49	4.55
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.60 kW	7.24 kW
COP T _j = 12°C	6.62	5.20
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	13.05 kW	11.07 kW
COP T _j = T _{biv}	2.60	1.72
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.05 kW	11.07 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.60	1.72
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.999	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW
COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh

Pdh Tj = -15°C (if TOL)	10.95	9.94
COP Tj = -15°C (if TOL)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-13 B-T

Model name	Bosch Compress 3000 AWS-13 B-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
COP	4.85	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
Prated	12.32 kW	11.30 kW
SCOP	4.25	3.29
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.78 kW	10.02 kW
COP Tj = -7°C	2.79	2.03
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	6.45 kW	6.06 kW
COP Tj = +2°C	4.45	3.28

Cdh Tj = +2 °C	0.982	0.986
Pdh Tj = +7°C	6.29 kW	6.40 kW
COP Tj = +7°C	4.93	4.27
Cdh Tj = +7 °C	0.980	0.983
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW

COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL	11.33	10.05
COP Tj = -15°C (if TOL	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-13 E-T

Model name	Bosch Compress 3000 AWS-13 E-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
COP	4.85	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
Prated	12.32 kW	11.30 kW
SCOP	4.25	3.29
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.78 kW	10.02 kW
COP Tj = -7°C	2.79	2.03
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	6.45 kW	6.06 kW
COP Tj = +2°C	4.45	3.28

Cdh Tj = +2 °C	0.982	0.986
Pdh Tj = +7°C	6.29 kW	6.40 kW
COP Tj = +7°C	4.93	4.27
Cdh Tj = +7 °C	0.980	0.983
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW

COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL	11.33	10.05
COP Tj = -15°C (if TOL	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-13 MS-T

Model name	Bosch Compress 3000 AWS-13 MS-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.74
Heating up time	01:18 h:min
Standby power input	85.7 W
Reference hot water temperature	51.1 °C
Mixed water at 40°C	236 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	74 %
COP	1.66
Heating up time	01:05 h:min
Standby power input	132.6 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	77 %
COP	1.79
Heating up time	01:02 h:min
Standby power input	86.5 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	249 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	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
COP	4.85	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
P _{rated}	12.32 kW	11.30 kW
SCOP	4.25	3.29
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.78 kW	10.02 kW
COP T _j = -7°C	2.79	2.03
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	6.45 kW	6.06 kW
COP T _j = +2°C	4.45	3.28
C _{dh} T _j = +2 °C	0.982	0.986
P _{dh} T _j = +7°C	6.29 kW	6.40 kW
COP T _j = +7°C	4.93	4.27
C _{dh} T _j = +7 °C	0.980	0.983
P _{dh} T _j = 12°C	6.99 kW	7.28 kW
COP T _j = 12°C	5.64	5.09
C _{dh} T _j = +12 °C	0.979	0.982
P _{dh} T _j = T _{biv}	12.33 kW	11.30 kW
COP T _j = T _{biv}	2.48	1.81
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	12.33 kW	11.30 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.48	1.81
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.995	0.996
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW
COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh

Pdh Tj = -15°C (if TOL)	11.33	10.05
COP Tj = -15°C (if TOL)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-13 M-T

Model name	Bosch Compress 3000 AWS-13 M-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.89
Heating up time	01:20 h:min
Standby power input	80.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.69
Heating up time	01:32 h:min
Standby power input	130.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	87 %
COP	2.03
Heating up time	01:03 h:min
Standby power input	70.0 W
Reference hot water temperature	51.5 °C
Mixed water at 40°C	254 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	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
COP	4.85	2.32

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
P _{rated}	12.32 kW	11.30 kW
SCOP	4.25	3.29
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.78 kW	10.02 kW
COP T _j = -7°C	2.79	2.03
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	6.45 kW	6.06 kW
COP T _j = +2°C	4.45	3.28
C _{dh} T _j = +2 °C	0.982	0.986
P _{dh} T _j = +7°C	6.29 kW	6.40 kW
COP T _j = +7°C	4.93	4.27
C _{dh} T _j = +7 °C	0.980	0.983
P _{dh} T _j = 12°C	6.99 kW	7.28 kW
COP T _j = 12°C	5.64	5.09
C _{dh} T _j = +12 °C	0.979	0.982
P _{dh} T _j = T _{biv}	12.33 kW	11.30 kW
COP T _j = T _{biv}	2.48	1.81
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	12.33 kW	11.30 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.48	1.81
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.995	0.996
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW
COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh

Pdh Tj = -15°C (if TOL)	11.33	1.96
COP Tj = -15°C (if TOL)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-15 B-S

Model name	Bosch Compress 3000 AWS-15 B-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	15.30 kW
El input	1.32 kW	6.74 kW
COP	4.92	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
Prated	13.04 kW	11.50 kW
SCOP	4.35	3.43
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	10.79 kW	10.00 kW
COP Tj = -7°C	2.74	1.96
Cdh Tj = -7 °C	0.998	0.999
Pdh Tj = +2°C	6.91 kW	6.01 kW
COP Tj = +2°C	4.30	3.47

Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	6.61 kW	6.56 kW
COP Tj = +7°C	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW

COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL	10.95	9.94
COP Tj = -15°C (if TOL	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-15 E-S

Model name	Bosch Compress 3000 AWS-15 E-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.48 kW	15.30 kW
El input	1.32 kW	6.74 kW
COP	4.92	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
Prated	13.04 kW	11.50 kW
SCOP	4.35	3.43
Tbiv	-10 °C	-9 °C
TOL	-10 °C	-9 °C
Pdh Tj = -7°C	10.79 kW	10.00 kW
COP Tj = -7°C	2.74	1.96
Cdh Tj = -7 °C	0.998	0.999
Pdh Tj = +2°C	6.91 kW	6.01 kW
COP Tj = +2°C	4.30	3.47

Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	6.61 kW	6.56 kW
COP Tj = +7°C	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW

COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL	10.95	9.94
COP Tj = -15°C (if TOL	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-15 M-S

Model name	Bosch Compress 3000 AWS-15 M-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.92
Heating up time	01:38 h:min
Standby power input	70.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	267 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	69 %
COP	1.57
Heating up time	01:29 h:min
Standby power input	114.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	108 %
COP	2.52
Heating up time	01:01 h:min
Standby power input	55.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	253 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	6.48 kW	15.30 kW
El input	1.32 kW	6.74 kW
COP	4.92	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
P _{rated}	13.04 kW	11.50 kW
SCOP	4.35	3.43
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	10.79 kW	10.00 kW
COP T _j = -7°C	2.74	1.96
C _{dh} T _j = -7 °C	0.998	0.999
P _{dh} T _j = +2°C	6.91 kW	6.01 kW
COP T _j = +2°C	4.30	3.47
C _{dh} T _j = +2 °C	0.996	0.996
P _{dh} T _j = +7°C	6.61 kW	6.56 kW
COP T _j = +7°C	5.49	4.55
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.60 kW	7.24 kW
COP T _j = 12°C	6.62	5.20
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	13.05 kW	11.07 kW
COP T _j = T _{biv}	2.60	1.72
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.05 kW	11.07 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.60	1.72
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.999	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW
COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh

Pdh Tj = -15°C (if TOL)	10.95	1.75
COP Tj = -15°C (if TOL)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-15 MS-S

Model name	Bosch Compress 3000 AWS-15 MS-S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	76 %
COP	1.76
Heating up time	01:36 h:min
Standby power input	75.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	67 %
COP	1.54
Heating up time	01:04 h:min
Standby power input	116.3 W
Reference hot water temperature	50.6 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	95 %
COP	2.22
Heating up time	01:00 h:min
Standby power input	68.0 W
Reference hot water temperature	50.3 °C
Mixed water at 40°C	248 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	6.48 kW	15.30 kW
El input	1.32 kW	6.74 kW
COP	4.92	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	134 %
P _{rated}	13.04 kW	11.50 kW
SCOP	4.35	3.43
T _{biv}	-10 °C	-9 °C
TOL	-10 °C	-9 °C
P _{dh} T _j = -7°C	10.79 kW	10.00 kW
COP T _j = -7°C	2.74	1.96
C _{dh} T _j = -7 °C	0.998	0.999
P _{dh} T _j = +2°C	6.91 kW	6.01 kW
COP T _j = +2°C	4.30	3.47
C _{dh} T _j = +2 °C	0.996	0.996
P _{dh} T _j = +7°C	6.61 kW	6.56 kW
COP T _j = +7°C	5.49	4.55
C _{dh} T _j = +7 °C	0.994	0.995
P _{dh} T _j = 12°C	7.60 kW	7.24 kW
COP T _j = 12°C	6.62	5.20
C _{dh} T _j = +12 °C	0.994	0.995
P _{dh} T _j = T _{biv}	13.05 kW	11.07 kW
COP T _j = T _{biv}	2.60	1.72
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.05 kW	11.07 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.60	1.72
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.999	0.999
WTOL	57 °C	57 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W

PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	11.50 kW
Annual energy consumption Qhe	6194 kWh	6924 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	141 %	111 %
Prated	13.42 kW	12.18 kW
SCOP	3.60	2.86
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.07 kW	7.22 kW
COP Tj = -7°C	3.21	2.43
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	5.95 kW	5.16 kW
COP Tj = +2°C	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	6.07 kW	6.54 kW
COP Tj = +7°C	4.80	4.74
Cdh Tj = +7 °C	0.994	0.995
Pdh Tj = 12°C	6.43 kW	6.93 kW
COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.42 kW	12.18 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh

Pdh Tj = -15°C (if TOL)	10.95	9.94
COP Tj = -15°C (if TOL)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	225 %	143 %
Prated	12.36 kW	7.51 kW
SCOP	5.71	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.37 kW	7.55 kW
COP Tj = +2°C	3.20	1.37
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = +7°C	7.83 kW	5.48 kW
COP Tj = +7°C	5.46	3.22
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	7.66 kW	7.04 kW
COP Tj = 12°C	6.64	4.96
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	12.37 kW	7.55 kW
COP Tj = Tbiv	3.20	1.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.37 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	1.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2893 kWh	2746 kWh

Model Bosch Compress 3000 AWS-15 B-T

Model name	Bosch Compress 3000 AWS-15 B-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
COP	4.85	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
Prated	12.32 kW	11.30 kW
SCOP	4.25	3.29
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.78 kW	10.02 kW
COP Tj = -7°C	2.79	2.03
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	6.45 kW	6.06 kW
COP Tj = +2°C	4.45	3.28

Cdh Tj = +2 °C	0.982	0.986
Pdh Tj = +7°C	6.29 kW	6.40 kW
COP Tj = +7°C	4.93	4.27
Cdh Tj = +7 °C	0.980	0.983
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW

COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL	11.33	10.05
COP Tj = -15°C (if TOL	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input		
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-15 E-T

Model name	Bosch Compress 3000 AWS-15 E-T
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
COP	4.85	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
Prated	12.32 kW	11.30 kW
SCOP	4.25	3.29
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.78 kW	10.02 kW
COP Tj = -7°C	2.79	2.03
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	6.45 kW	6.06 kW
COP Tj = +2°C	4.45	3.28

Cdh Tj = +2 °C	0.982	0.986
Pdh Tj = +7°C	6.29 kW	6.40 kW
COP Tj = +7°C	4.93	4.27
Cdh Tj = +7 °C	0.980	0.983
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW

COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL	11.33	10.05
COP Tj = -15°C (if TOL	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-15 M-T

Model name	Bosch Compress 3000 AWS-15 M-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	82 %
COP	1.89
Heating up time	01:20 h:min
Standby power input	80.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	251 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.69
Heating up time	01:32 h:min
Standby power input	130.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	258 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	87 %
COP	2.03
Heating up time	01:03 h:min
Standby power input	70.0 W
Reference hot water temperature	51.5 °C
Mixed water at 40°C	254 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	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
COP	4.85	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
P _{rated}	12.32 kW	11.30 kW
SCOP	4.25	3.29
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.78 kW	10.02 kW
COP T _j = -7°C	2.79	2.03
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	6.45 kW	6.06 kW
COP T _j = +2°C	4.45	3.28
C _{dh} T _j = +2 °C	0.982	0.986
P _{dh} T _j = +7°C	6.29 kW	6.40 kW
COP T _j = +7°C	4.93	4.27
C _{dh} T _j = +7 °C	0.980	0.983
P _{dh} T _j = 12°C	6.99 kW	7.28 kW
COP T _j = 12°C	5.64	5.09
C _{dh} T _j = +12 °C	0.979	0.982
P _{dh} T _j = T _{biv}	12.33 kW	11.30 kW
COP T _j = T _{biv}	2.48	1.81
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	12.33 kW	11.30 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.48	1.81
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.995	0.996
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW
COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh

Pdh Tj = -15°C (if TOL)	11.33	1.96
COP Tj = -15°C (if TOL)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh

Model Bosch Compress 3000 AWS-15 MS-T

Model name	Bosch Compress 3000 AWS-15 MS-T
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

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

Declared load profile	L
Efficiency η_{DHW}	75 %
COP	1.74
Heating up time	01:18 h:min
Standby power input	85.7 W
Reference hot water temperature	51.1 °C
Mixed water at 40°C	236 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	74 %
COP	1.66
Heating up time	01:05 h:min
Standby power input	132.6 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	253 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	77 %
COP	1.79
Heating up time	01:02 h:min
Standby power input	86.5 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	249 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	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
COP	4.85	2.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	129 %
P _{rated}	12.32 kW	11.30 kW
SCOP	4.25	3.29
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	10.78 kW	10.02 kW
COP T _j = -7°C	2.79	2.03
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	6.45 kW	6.06 kW
COP T _j = +2°C	4.45	3.28
C _{dh} T _j = +2 °C	0.982	0.986
P _{dh} T _j = +7°C	6.29 kW	6.40 kW
COP T _j = +7°C	4.93	4.27
C _{dh} T _j = +7 °C	0.980	0.983
P _{dh} T _j = 12°C	6.99 kW	7.28 kW
COP T _j = 12°C	5.64	5.09
C _{dh} T _j = +12 °C	0.979	0.982
P _{dh} T _j = T _{biv}	12.33 kW	11.30 kW
COP T _j = T _{biv}	2.48	1.81
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	12.33 kW	11.30 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.48	1.81
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.995	0.996
WTOL	57 °C	57 °C
P _{off}	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W

PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	111 %
Prated	13.89 kW	12.32 kW
SCOP	3.67	2.85
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.50 kW	7.49 kW
COP Tj = -7°C	3.35	2.38
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	6.02 kW	5.72 kW
COP Tj = +2°C	4.86	3.65
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	6.72 kW	6.47 kW
COP Tj = +7°C	5.66	4.54
Cdh Tj = +7 °C	0.978	0.982
Pdh Tj = 12°C	7.51 kW	7.33 kW
COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh

Pdh Tj = -15°C (if TOL)	11.33	10.05
COP Tj = -15°C (if TOL)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	209 %	155 %
Prated	12.67 kW	11.18 kW
SCOP	5.31	3.94
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.67 kW	11.18 kW
COP Tj = +2°C	3.32	2.13
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	8.28 kW	7.27 kW
COP Tj = +7°C	4.96	3.48
Cdh Tj = +7 °C	0.984	0.988
Pdh Tj = 12°C	7.50 kW	7.21 kW
COP Tj = 12°C	6.42	5.12
Cdh Tj = +12 °C	0.978	0.982
Pdh Tj = Tbiv	12.67 kW	11.18 kW
COP Tj = Tbiv	3.32	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.67 kW	11.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.32	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
PTO	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3186 kWh	3787 kWh