

Page 1 of 193

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Login

Summary of	Bosch Compress 3000 AWS-11/13/15	Reg. No.	011-1W0136		
Certificate Holder	Certificate Holder				
Name	Bosch Thermotechnik GmbH				
Address	Junkersstraße 20 - 24	Zip	73249		
City	Wernau	Country	Germany		
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH				
Subtype title	Bosch Compress 3000 AWS-11/13/15				
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

Configure model			
Model name Bosch Compress 3000 AWS-11 E-S			
Application	Heating (medium temp)		
Units	Indoor + Outdoor		
Climate Zone Colder Climate + Warmer Climate			
Reversibility	Yes		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	6.48 kW	13.57 kW		
El input	1.32 kW	5.75 kW		
СОР	4.92	2.36		

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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			
	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	





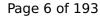
Pdh Tj = 12°C	7.11 kW	7.26 kW
COP Tj = 12°C	5.70	5.11
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.02 kW	9.35 kW
COP Tj = Tbiv	2.49	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.02 kW	9.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
РТО	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

Colder Climate



EN 12102-1		
	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			
	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
РТО	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<-20°C)	10.72	9.48
COP Tj = -15°C (if TOL $<$ -20°C)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

Warmer Climate





EN 12102-1		
	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		
	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



Page 8 of 193

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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
РТО	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

Configure model		
Model name	Bosch Compress 3000 AWS-11 B-S	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.48 kW	13.57 kW	
El input	1.32 kW	5.75 kW	
СОР	4.92	2.36	

EN 14511-4		
Shutting off the heat transfer medium flow	naccod	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1			
	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		
	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



Page 11 of 193

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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	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5084 kWh	5889 kWh

Colder Climate



EN 12102-1			
	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		
	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



Page 13 of 193

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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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8480 kWh	8790 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.72	9.48
COP Tj = -15 °C (if TOL< -20 °C)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.64 kW	6.64 kW
$COP Tj = +7^{\circ}C$	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



Page 15 of 193

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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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
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

Configure model		
Model name Bosch Compress 3000 AWS-11 M-S		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.48 kW	13.57 kW	
El input	1.32 kW	5.75 kW	
СОР	4.92	2.36	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



Page 18 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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

Colder Climate



EN 12102-1		
	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		
	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
РТО	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<-20°C)	10.72	1.85
COP Tj = -15°C (if TOL $<$ -20°C)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.64 kW	6.64 kW
$COP Tj = +7^{\circ}C$	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
РТО	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

Domestic Hot Water (DHW)

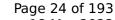
Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	82 %
СОР	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 I

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	69 %
СОР	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

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	108 %
СОР	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 I



Model: Bosch Compress 3000 AWS-11 MS-S

Configure model		
Model name Bosch Compress 3000 AWS-11 MS-S		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	e Zone Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

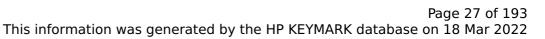
EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.48 kW	13.57 kW
El input	1.32 kW	5.75 kW
СОР	4.92	2.36

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	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		
	Low temperature	Medium temperature
	176 %	128 %
red	11.02 kW	9.35 kW
)P	4.48	3.28
1	-10 °C	-9 °C
	-10 °C	-9 °C
Tj = -7°C	9.94 kW	8.39 kW
^o Tj = -7°C	2.81	2.01
Tj = -7 °C	0.998	0.998
Tj = +2°C	5.94 kW	5.03 kW
^o Tj = +2°C	4.61	3.21
Tj = +2 °C	0.995	0.996
Tj = +7°C	6.73 kW	6.55 kW
? Tj = +7°C	5.55	4.43
Tj = +7 °C	0.994	0.995





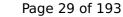
Pdh Tj = 12°C	7.11 kW	7.26 kW
COP Tj = 12°C	5.70	5.11
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	11.02 kW	9.35 kW
COP Tj = Tbiv	2.49	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.02 kW	9.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh 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

Colder Climate



EN 12102-1		
	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		
	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
$COP Tj = +2^{\circ}C$	4.65	4.05
Cdh Tj = +2 °C	0.995	0.995
Pdh Tj = $+7^{\circ}$ C	6.56 kW	6.28 kW
$COP Tj = +7^{\circ}C$	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
РТО	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<-20°C)	10.72	9.48
COP Tj = -15°C (if TOL<-20°C)	2.15	1.85
Cdh Tj = -15 °C	0.999	0.999
	t .	

Warmer Climate



EN 12102-1		
	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		
	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
$COPTj = +2^{\circ}C$	3.45	1.97
Cdh Tj = +2 °C	0.998	0.999
Pdh Tj = $+7$ °C	7.64 kW	6.64 kW
$COPTj = +7^{\circ}C$	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



Page 31 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Domestic Hot Water (DHW)

Average Climate

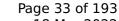


EN 16147	
Declared load profile	L
Efficiency ηDHW	76 %
СОР	1.76
Heating up time	01:36 h:min
Standby power input	75.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	251 I

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	67 %
СОР	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 I

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	95 %
СОР	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



Model: Bosch Compress 3000 AWS-11 E-T

Configure model	
Model name	Bosch Compress 3000 AWS-11 E-T
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
	Low temperature	Medium temperature		
Heat output	6.41 kW	13.45 kW		
El input	1.32 kW	5.69 kW		
СОР	4.85	2.37		

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1				
	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				
	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 = $+2^{\circ}$ 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 = $+7^{\circ}$ C	6.79 kW	6.15 kW		
COP Tj = +7°C	5.82	4.07		
Cdh Tj = +7 °C	0.978	0.983		



Page 36 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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



Page 38 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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<-20°C)	10.28	9.01
COP Tj = -15 °C (if TOL< -20 °C)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.53 kW	6.85 kW
$COP Tj = +7^{\circ}C$	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



Page 40 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Configure model		
Model name	Bosch Compress 3000 AWS-11 B-T	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
СОР	4.85	2.37

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	6.79 kW	6.15 kW
COP Tj = +7°C	5.82	4.07
Cdh Tj = +7 °C	0.978	0.983



Page 43 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

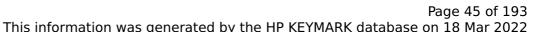
7.62 kW	7.56 kW
6.94	5.73
0.976	0.980
11.70 kW	9.01 kW
2.72	1.62
11.70 kW	9.01 kW
2.72	1.62
0.994	0.995
57 °C	57 °C
26 W	26 W
26 W	26 W
26 W	26 W
53 W	53 W
n/a	
0.00 kW	0.00 kW
5234 kWh	5777 kWh
	6.94 0.976 11.70 kW 2.72 11.70 kW 2.72 0.994 57 °C 26 W 26 W 53 W n/a 0.00 kW

Colder Climate



EN 12102-1		
	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		
	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





This information was gener	ated by the HP KEYMA	RK database on 18 Mar 2022
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
РТО	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7564 kWh	8660 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.28	9.01
COP Tj = -15 °C (if TOL< -20 °C)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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



Page 47 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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	n/a	
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

Configure model		
Model name Bosch Compress 3000 AWS-11 M-T		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.41 kW	13.45 kW	
El input	1.32 kW	5.69 kW	
СОР	4.85	2.37	

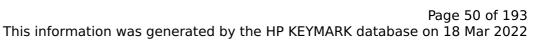
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



\bigcirc	
	CEN heat pump
5	KEYMARK

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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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





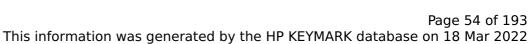
Pdh Tj = 12°C	7.63 kW	7.69 kW
COP Tj = 12°C	6.89	6.02
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	10.28 kW	9.01 kW
COP Tj = Tbiv	2.57	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.28 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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<-20°C)	10.28	1.87
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.53 kW	6.85 kW
$COP Tj = +7^{\circ}C$	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

Domestic Hot Water (DHW)

CEN heat pump KEYMARK

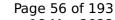
Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	82 %
СОР	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

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	75 %
СОР	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 I

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	87 %
СОР	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



Model: Bosch Compress 3000 AWS-11 MS-T

Configure model		
Model name Bosch Compress 3000 AWS-11 MS-T		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	13.45 kW
El input	1.32 kW	5.69 kW
СОР	4.85	2.37

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	6.79 kW	6.15 kW
COP Tj = +7°C	5.82	4.07
Cdh Tj = +7 °C	0.978	0.983



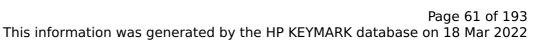
	-	
Pdh Tj = 12°C	7.62 kW	7.56 kW
COP Tj = 12°C	6.94	5.73
Cdh Tj = +12 °C	0.976	0.980
Pdh Tj = Tbiv	11.70 kW	9.01 kW
COP Tj = Tbiv	2.72	1.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.70 kW	9.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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
РТО	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<-20°C)	10.28	9.01
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	1.87
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate

EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.53 kW	6.85 kW
$COP Tj = +7^{\circ}C$	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



Page 63 of 193

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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
РТО	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

Domestic Hot Water (DHW)

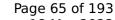
Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	75 %	
СОР	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	

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	74 %	
СОР	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 I	

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	77 %
СОР	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



Model: Bosch Compress 3000 AWS-13 E-S

Configure model		
Model name Bosch Compress 3000 AWS-13 E-S		
Application Heating (medium temp)		
Units Indoor + Outdoor		
Climate Zone Colder Climate + Warmer Climate		
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.48 kW	14.44 kW	
El input	1.32 kW	6.23 kW	
СОР	4.92	2.32	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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

Colder Climate



EN 12102-1		
	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			
	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	





	1	
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
РТО	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<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1				
	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			
	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 = $+7^{\circ}$ C	7.83 kW	5.48 kW	
$COPTj = +7^{\circ}C$	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	



Page 72 of 193

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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
РТО	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

Configure model		
Model name	Bosch Compress 3000 AWS-13 B-S	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	6.48 kW	14.44 kW	
El input	1.32 kW	6.23 kW	
СОР	4.92	2.32	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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
$COP Tj = +7^{\circ}C$	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995



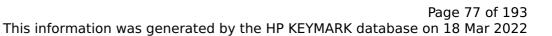
	-	
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh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

Colder Climate



EN 12102-1		
	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		
	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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



Page 79 of 193

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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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
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

Configure model		
Model name Bosch Compress 3000 AWS-13 M-S		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
СОР	4.92	2.32

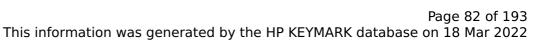
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



7.60 kW	7.24 kW
6.62	5.20
0.994	0.995
13.05 kW	11.07 kW
2.60	1.72
13.05 kW	11.07 kW
2.60	1.72
0.999	0.999
57 °C	57 °C
7 W	7 W
7 W	7 W
7 W	7 W
35 W	35 W
Electricity	Electricity
0.00 kW	11.50 kW
6194 kWh	6924 kWh
	0.994 13.05 kW 2.60 13.05 kW 2.60 0.999 57 °C 7 W 7 W 7 W 35 W Electricity 0.00 kW

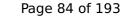
Colder Climate

CEN heat pump KEYMARK



EN 12102-1		
	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		
	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





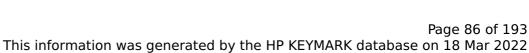
Pdh Tj = 12°C	6.43 kW	6.93 kW
COP Tj = 12°C	4.83	4.99
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	10.95 kW	9.94 kW
COP Tj = Tbiv	2.36	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.95 kW	9.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh 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<-20°C)	10.95	1.75
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



The same of the sa		in database on 10 Mai 2022
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
РТО	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

Domestic Hot Water (DHW)

CEN heat pump KEYMARK

Average Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	82 %	
СОР	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	

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	69 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	108 %	
СОР	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 I	



Model: Bosch Compress 3000 AWS-13 MS-S

Configure model		
Model name	Bosch Compress 3000 AWS-13 MS-S	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.48 kW	14.44 kW
El input	1.32 kW	6.23 kW
СОР	4.92	2.32

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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



Page 91 of 193

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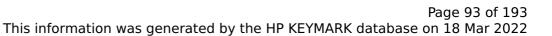
Pdh Tj = 12°C	7.60 kW	7.24 kW
COP Tj = 12°C	6.62	5.20
Cdh Tj = +12 °C	0.994	0.995
Pdh Tj = Tbiv	13.05 kW	11.07 kW
COP Tj = Tbiv	2.60	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.05 kW	11.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.999	0.999
WTOL	57 °C	57 °C
Poff	7 W	7 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate

EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



Page 95 of 193

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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
РТО	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

Domestic Hot Water (DHW)

Average Climate

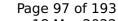


EN 16147	
Declared load profile	L
Efficiency ηDHW	76 %
СОР	1.76
Heating up time	01:36 h:min
Standby power input	75.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	251

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	67 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	95 %	
СОР	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	

Model: Bosch Compress 3000 AWS-13 B-T

Configure model		
Model name	Bosch Compress 3000 AWS-13 B-T	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
СОР	4.85	2.32

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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





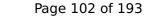
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh 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	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

Colder Climate



EN 12102-1		
	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		
	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
РТО	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL<-20°C)	11.33	10.05
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	8.28 kW	7.27 kW
$COP Tj = +7^{\circ}C$	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



Page 104 of 193

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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
РТО	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	n/a	
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

Configure model		
Model name	Bosch Compress 3000 AWS-13 E-T	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
СОР	4.85	2.32

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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



\bigcirc	
	CEN heat pump
13	KEYMARK

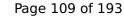
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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
РТО	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<-20°C)	11.33	10.05
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	8.28 kW	7.27 kW
$COP Tj = +7^{\circ}C$	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



Page 111 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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

Configure model		
Model name Bosch Compress 3000 AWS-13 MS-T		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.41 kW	14.29 kW	
El input	1.32 kW	6.16 kW	
СОР	4.85	2.32	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



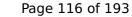
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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
РТО	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<-20°C)	11.33	10.05
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



Page 118 of 193

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-	
12.67 kW	11.18 kW
3.32	2.13
12.67 kW	11.18 kW
3.32	2.13
0.993	0.995
57 °C	57 °C
26 W	26 W
26 W	26 W
26 W	26 W
53 W	53 W
Electricity	Electricity
0.00 kW	0.00 kW
3186 kWh	3787 kWh
	3.32 12.67 kW 3.32 0.993 57 °C 26 W 26 W 26 W 53 W Electricity 0.00 kW

Domestic Hot Water (DHW)

Average Climate

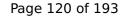


EN 16147	
Declared load profile	L
Efficiency ηDHW	75 %
СОР	1.74
Heating up time	01:18 h:min
Standby power input	85.7 W
Reference hot water temperature	51.1 °C
Mixed water at 40°C	236

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	74 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	77 %	
СОР	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	



Model: Bosch Compress 3000 AWS-13 M-T

Configure model		
Model name	Bosch Compress 3000 AWS-13 M-T	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	14.29 kW
El input	1.32 kW	6.16 kW
СОР	4.85	2.32

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



Page 123 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

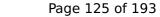
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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





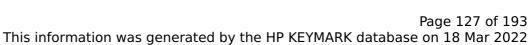
Pdh Tj = 12°C	7.51 kW	7.33 kW
COP Tj = 12°C	6.54	5.61
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	11.33 kW	10.05 kW
COP Tj = Tbiv	2.61	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.33 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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<-20°C)	11.33	1.96
COP Tj = -15°C (if TOL<-20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	8.28 kW	7.27 kW
$COP Tj = +7^{\circ}C$	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



The state of the s		actabase on 10 Mai 2022
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
РТО	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

Domestic Hot Water (DHW)

CEN heat pump KEYMARK

Average Climate



This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147

Declared load profile L

Efficiency ηDHW 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 I

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	75 %
СОР	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

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	87 %
СОР	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



Model: Bosch Compress 3000 AWS-15 B-S

Configure model	
Model name	Bosch Compress 3000 AWS-15 B-S
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	6.48 kW	15.30 kW		
El input	1.32 kW	6.74 kW		
СОР	4.92	2.27		

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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
$COP Tj = +7^{\circ}C$	5.49	4.55
Cdh Tj = +7 °C	0.994	0.995



This information was genera	ated by the HP KEYMA	RK database on 18 Mar 2022
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	
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Colder Climate

Annual energy consumption Qhe

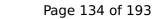
CEN heat pump KEYMARK

6194 kWh

6924 kWh

EN 12102-1			
	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		
	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
$COP Tj = +2^{\circ}C$	5.12	3.65
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = $+7^{\circ}$ C	6.07 kW	6.54 kW
$COP Tj = +7^{\circ}C$	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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9181 kWh	10512 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL<-20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1			
	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		
	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 = $+7^{\circ}$ 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



Page 136 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	7 W	7 W
PSB	7 W	7 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	
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

Configure model		
Model name Bosch Compress 3000 AWS-15 E-S		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.48 kW	15.30 kW	
El input	1.32 kW	6.74 kW	
СОР	4.92	2.27	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	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		
	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



\bigcirc	
	CEN heat pump
	KEYMARK

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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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



Page 141 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1		
	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			
	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 = $+7^{\circ}$ C	7.83 kW	5.48 kW	
$COPTj = +7^{\circ}C$	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	



Page 143 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Configure model			
Model name	Bosch Compress 3000 AWS-15 M-S		
Application	Heating + DHW + low temp		
Units	Indoor + Outdoor		
Climate Zone	Colder Climate + Warmer Climate		
Reversibility	Yes		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	6.48 kW	15.30 kW	
El input	1.32 kW	6.74 kW	
СОР	4.92	2.27	

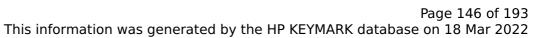
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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 = $+2^{\circ}$ 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
РТО	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<-20°C)	10.95	1.75
COP Tj = -15°C (if TOL<-20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



 $$\operatorname{\textit{Page}}\ 150$$ of 193 This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Domestic Hot Water (DHW)

Average Climate

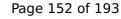


EN 16147	
Declared load profile	L
Efficiency ηDHW	82 %
СОР	1.92
Heating up time	01:38 h:min
Standby power input	70.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	267

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	69 %	
СОР	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	

Warmer Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	108 %
СОР	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 I



Model: Bosch Compress 3000 AWS-15 MS-S

Configure model		
Model name Bosch Compress 3000 AWS-15 MS-S		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.48 kW	15.30 kW
El input	1.32 kW	6.74 kW
СОР	4.92	2.27

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



Page 155 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

	-	
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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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 = $+2^{\circ}$ 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
РТО	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<-20°C)	10.95	9.94
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.75
Cdh Tj = -15 °C	0.998	0.999

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	7.83 kW	5.48 kW
$COP Tj = +7^{\circ}C$	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



Page 159 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Domestic Hot Water (DHW)

Average Climate



EN 16147

Declared load profile

L

Efficiency ηDHW

76 %

COP

1.76

Heating up time

01:36 h:min

Standby power input

75.0 W

Reference hot water temperature

51.2 °C

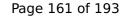
Mixed water at 40°C

251 I

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	67 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	95 %	
СОР	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	



Model: Bosch Compress 3000 AWS-15 B-T

Configure model		
Model name Bosch Compress 3000 AWS-15 B-T		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.41 kW	15.10 kW	
El input	1.32 kW	6.64 kW	
СОР	4.85	2.27	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate



EN 12102-1		
	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		
	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



\bigcirc	
	CEN heat pump
5	KEYMARK

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	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5994 kWh	7088 kWh

Colder Climate



EN 12102-1		
	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		
	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
РТО	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	n/a	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9329 kWh	10660 kWh
Pdh Tj = -15°C (if TOL<-20°C)	11.33	10.05
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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



Page 168 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	26 W	26 W
PSB	26 W	26 W
PCK	53 W	53 W
Supplementary Heater: Type of energy input	n/a	
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

Configure model		
Model name	Bosch Compress 3000 AWS-15 E-T	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	6.41 kW	15.10 kW	
El input	1.32 kW	6.64 kW	
СОР	4.85	2.27	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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



Page 171 of 193

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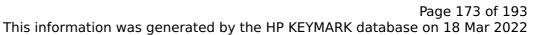
Pdh Tj = 12°C	6.99 kW	7.28 kW
COP Tj = 12°C	5.64	5.09
Cdh Tj = +12 °C	0.979	0.982
Pdh Tj = Tbiv	12.33 kW	11.30 kW
COP Tj = Tbiv	2.48	1.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.33 kW	11.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.995	0.996
WTOL	57 °C	57 °C
Poff	26 W	26 W
РТО	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

Colder Climate



EN 12102-1		
	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		
	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
РТО	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<-20°C)	11.33	10.05
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	8.28 kW	7.27 kW
$COPTj = +7^{\circ}C$	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



Page 175 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Configure model		
Model name Bosch Compress 3000 AWS-15 M-T		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
СОР	4.85	2.27

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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



Page 178 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Colder Climate



EN 12102-1				
	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				
	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<-20°C)	11.33	1.96
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	1.96
Cdh Tj = -15 °C	0.994	0.995

Warmer Climate



EN 12102-1		
	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		
	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



Page 182 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

12.67 kW	
12.07 KW	11.18 kW
3.32	2.13
12.67 kW	11.18 kW
3.32	2.13
0.993	0.995
57 °C	57 °C
26 W	26 W
26 W	26 W
26 W	26 W
53 W	53 W
Electricity	Electricity
0.00 kW	0.00 kW
3186 kWh	3787 kWh
	3.32 12.67 kW 3.32 0.993 57 °C 26 W 26 W 26 W 53 W Electricity 0.00 kW

Domestic Hot Water (DHW)

Average Climate

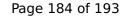


EN 16147		
Declared load profile	L	
Efficiency ηDHW	82 %	
СОР	1.89	
Heating up time	01:20 h:min	
Standby power input	80.0 W	
Reference hot water temperature	52.1 °C	
Mixed water at 40°C	251 I	

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	75 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	87 %	
СОР	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	



Model: Bosch Compress 3000 AWS-15 MS-T

Configure model		
Model name	Bosch Compress 3000 AWS-15 MS-T	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.41 kW	15.10 kW
El input	1.32 kW	6.64 kW
СОР	4.85	2.27

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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 = $+7^{\circ}$ C	6.29 kW	6.40 kW
COP Tj = +7°C	4.93	4.27
Cdh Tj = +7 °C	0.980	0.983



Page 187 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Colder Climate



EN 12102-1		
	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		
	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





This information was generated by the HP KEYMARK database on 18 Mar 202		
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
РТО	26 W	26 W
PSB	26 W	26 W
РСК	53 W	53 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	13.89 kW	12.32 kW

Warmer Climate

Cdh Tj = -15 $^{\circ}$ C

Annual energy consumption Qhe

Pdh Tj = -15°C (if TOL<-20°C)

COP Tj = -15°C (if TOL<-20°C)

9329 kWh

11.33

2.61

0.994

10660 kWh

10.05

1.96

0.995



EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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



Page 191 of 193

This information was generated by the HP KEYMARK database on 18 Mar 2022

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
РТО	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

Domestic Hot Water (DHW)

Average Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	75 %	
СОР	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 I	

Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	74 %	
СОР	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 I	

Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	77 %	
СОР	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 I	