

# CERTIFICATE

<b>Certificate holder</b>	<b>Bosch Thermotechnik GmbH</b> <b>Sophienstr. 30-32</b> <b>35576 Wetzlar</b> <b>GERMANY</b>
<b>Production facility</b>	Aveiro, Changwon, Tranas
<b>Product</b>	Air/Water Heat pumps
<b>Type, Model</b>	Bosch Compress 3000 AWS-4, Bosch Compress 3000 AWS-6
<b>Testing basis</b>	DIN EN 14511-1; DIN EN 14511-2; DIN EN 14511-3; DIN EN 14511-4:2013-12 DIN EN 14825:2013-12 DIN EN 12102:2013-10 DIN EN 16147:2011-04 European KEYMARK Scheme Heat Pumps Rev. 2 (2017-03)
<b>Mark of conformity</b>	
<b>Registration No.</b>	011-1W0133
<b>Valid until</b>	2027-07-31
<b>Right of use</b>	This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number.  See annex for further information.

# ANNEX

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<b>Certificate</b>	011-1W0133 dated 2017-09-26
<b>Technical Data</b>	See technical data sheet to the above mentioned registration number at <a href="http://www.dincertco.tuv.com">www.dincertco.tuv.com</a>
<b>Testing laboratory/ Inspection body</b>	RISE Research Institutes of Sweden AB PO Box 857 501 15 Boras SWEDEN
<b>Test report(s)</b>	4P07069-01 dated 2015-05-05



This information was downloaded from the HP KEYMARK database on 16 Mar 2020

Summary of	Bosch Compress 3000 AWS-4/6	Reg. No.	011-1W0133
Certificate Holder			
Name	Bosch Thermotechnik GmbH		
Address	Sophienstraße 30-32	Zip	35576
City	Wetzlar	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	RISE Research Institutes of Sweden AB		
Subtype title	Bosch Compress 3000 AWS-4/6		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	HFC-410a		
Mass Of Refrigerant	1.6 kg		
Certification Date	n/a		
Testing basis	n/a		

## Model: Bosch Compress 3000 AWS-4 E

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.49 kW	3.01 kW
El input	0.96 kW	1.18 kW
COP	4.69	2.55
Indoor water flow rate	0.78 m <sup>3</sup> /h	0.33 m <sup>3</sup> /h

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	144 %	115 %
Prated	5.00 kW	4.00 kW
SCOP	3.68	2.95
Tbiv	-10 °C	-10 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	4.40 kW	3.50 kW
COP Tj = -7 °C	2.71	2.02
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.00
Pdh Tj = +7 °C	3.60 kW	3.60 kW
COP Tj = +7 °C	5.61	4.70
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.00

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Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.31	1.82
Pdh Tj = TOL	4.10 kW	4.10 kW
COP Tj = TOL	2.51	2.00
Cdh	0.90	0.90
WTOL	57 °C	57 °C
Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2814 kWh	2811 kWh

## Model: Bosch Compress 3000 AWS-4 B

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.49 kW	3.01 kW
El input	0.96 kW	1.18 kW
COP	4.69	2.55
Indoor water flow rate	0.78 m <sup>3</sup> /h	0.33 m <sup>3</sup> /h

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	144 %	115 %
Prated	5.00 kW	4.00 kW
SCOP	3.68	2.95
Tbiv	-10 °C	-10 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	4.40 kW	3.50 kW
COP Tj = -7 °C	2.71	2.02
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.00
Pdh Tj = +7 °C	3.60 kW	3.60 kW
COP Tj = +7 °C	5.61	4.70
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.00



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Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.31	1.82
Pdh Tj = TOL	4.10 kW	4.10 kW
COP Tj = TOL	2.51	2.00
Cdh	0.90	0.90
WTOL	57 °C	57 °C
Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2814 kWh	2811 kWh

## Model: Bosch Compress 3000 AWS-4 M

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.49 kW	3.01 kW
El input	0.96 kW	1.18 kW
COP	4.69	2.55
Indoor water flow rate	0.78 m <sup>3</sup> /h	0.33 m <sup>3</sup> /h

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	144 %	115 %
Prated	5.00 kW	4.00 kW
SCOP	3.68	2.95
Tbiv	-10 °C	-10 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	4.40 kW	3.50 kW
COP Tj = -7 °C	2.71	2.02
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.00
Pdh Tj = +7 °C	3.60 kW	3.60 kW
COP Tj = +7 °C	5.61	4.70
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.00

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Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.31	1.82
Pdh Tj = TOL	4.10 kW	4.10 kW
COP Tj = TOL	2.51	2.00
Cdh	0.90	0.90
WTOL	57 °C	57 °C
Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2814 kWh	2811 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	105 %
COP	2.49
Heating up time	02:08 h:min
Standby power input	44.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	257 l

## Model: Bosch Compress 3000 AWS-4 MS

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	4.49 kW	3.01 kW
El input	0.96 kW	1.18 kW
COP	4.69	2.55
Indoor water flow rate	0.78 m <sup>3</sup> /h	0.33 m <sup>3</sup> /h

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	144 %	115 %
Prated	5.00 kW	4.00 kW
SCOP	3.68	2.95
Tbiv	-10 °C	-10 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	4.40 kW	3.50 kW
COP Tj = -7 °C	2.71	2.02
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.00
Pdh Tj = +7 °C	3.60 kW	3.60 kW
COP Tj = +7 °C	5.61	4.70
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.00

Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.31	1.82
Pdh Tj = TOL	4.10 kW	4.10 kW
COP Tj = TOL	2.51	2.00
Cdh	0.90	0.90
WTOL	57 °C	57 °C
Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2814 kWh	2811 kWh

## Domestic Hot Water (DHW)

### Average Climate



<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	105 %
COP	2.49
Heating up time	02:08 h:min
Standby power input	44.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	257 l

## Model: Bosch Compress 3000 AWS-6 E

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	5.01 kW	3.50 kW
El input	1.06 kW	1.35 kW
COP	4.70	2.60
Indoor water flow rate	0.87 m <sup>3</sup> /h	0.38 m <sup>3</sup> /h

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	148 %	119 %
Prated	6.00 kW	5.00 kW
SCOP	3.78	3.05
Tbiv	-10 °C	-10 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	5.30 kW	4.40 kW
COP Tj = -7 °C	2.71	2.00
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.01
Pdh Tj = +7 °C	3.60 kW	3.50 kW
COP Tj = +7 °C	5.61	4.71
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.02

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Pdh Tj = Tbiv	6.00 kW	5.00 kW
COP Tj = Tbiv	2.51	1.80
Pdh Tj = TOL	4.90 kW	4.50 kW
COP Tj = TOL	2.51	2.00
Cdh	0.90	0.90
WTOL	57 °C	57 °C
Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3296 kWh	3400 kWh

## Model: Bosch Compress 3000 AWS-6 B

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	5.01 kW	3.50 kW
El input	1.06 kW	1.35 kW
COP	4.70	2.60
Indoor water flow rate	0.87 m <sup>3</sup> /h	0.38 m <sup>3</sup> /h

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	36 dB(A)	36 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

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	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	148 %	119 %
Prated	6.00 kW	5.00 kW
SCOP	3.78	3.05
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Pdh Tj = +2 °C	3.60 kW	3.20 kW
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Poff	11 W	11 W
PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3296 kWh	3400 kWh

## Model: Bosch Compress 3000 AWS-6 M

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	5.01 kW	3.50 kW
El input	1.06 kW	1.35 kW
COP	4.70	2.60
Indoor water flow rate	0.87 m <sup>3</sup> /h	0.38 m <sup>3</sup> /h

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### Average Climate



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Pdh Tj = +7 °C	3.60 kW	3.50 kW
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PTO	51 W	51 W
PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3296 kWh	3400 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	105 %
COP	2.49
Heating up time	02:08 h:min
Standby power input	44.0 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	257 l

## Model: Bosch Compress 3000 AWS-6 MS

### General Data

Power supply	1x230V 50Hz
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### Heating

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	5.01 kW	3.50 kW
El input	1.06 kW	1.35 kW
COP	4.70	2.60
Indoor water flow rate	0.87 m <sup>3</sup> /h	0.38 m <sup>3</sup> /h

#### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
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Complete power supply failure	passed
Defrost test	passed

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COP Tj = -7 °C	2.71	2.00
Pdh Tj = +2 °C	3.60 kW	3.20 kW
COP Tj = +2 °C	3.61	3.01
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COP Tj = +7 °C	5.61	4.71
Pdh Tj = 12 °C	3.60 kW	3.60 kW
COP Tj = 12 °C	5.61	5.02

This information was downloaded from the HP KEYMARK database on 16 Mar 2020

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COP Tj = TOL	2.51	2.00
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PSB	11 W	11 W
PCK	100 W	100 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3296 kWh	3400 kWh

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### Average Climate

<b>EN 16147</b>	
Declared load profile	L
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