



Heat Pump Keymark  
Certification Body  
GEN 025

# Certificazione di Prodotto Product Certification

Certificato N. **ICIM-PDC-000180-00**  
Certificate No.

TITOLARE DEL CERTIFICATO / CERTIFICATE HOLDER

**Bosch Thermotechnik GmbH**

Junkersstraße 20 - 24  
73249 Wernau - Germany

UNITÀ PRODUTTIVE / PRODUCTION SITES

2022101401DB - IT

PRODOTTI / PRODUCT

**POMPE DI CALORE  
HEAT PUMPS**

PRODOTTO-TIPO  
PRODUCT TYPE

**Aria/Acqua  
Air/Water**

BRAND

**Bosch**

SOTTO-TIPO  
SUBTYPE

**CS3000 AWP 31/36/41**

MODELLI  
MODEL(S)

**CS3000AWP 31 ; CS3000AWP 31 MB ; CS3000AWP 31 P  
CS3000AWP 31 S ; CS3000AWP 36 ; CS3000AWP 36 MB  
CS3000AWP 36 P ; CS3000AWP 36 S ; CS3000AWP 41  
CS3000AWP 41 MB ; CS3000AWP 41 P ; CS3000AWP 41 S**

CONFORMEMENTE ALLA NORMA ED AL DOCUMENTO NORMATIVO ICIM  
IN COMPLIANCE WITH THE STANDARD AND WITH ICIM NORMATIVE DOCUMENT

**EN 14511:2018, EN 14825:2018, EN 12102-1:2017,  
KEYMARK Certification Scheme for Heat Pumps, ICIM 0440CS**

Il presente Certificato autorizza il titolare all' utilizzo del marchio di conformità KEYMARK insieme al numero di registrazione specificato. Si veda il database KEYMARK per le informazioni dettagliate - Per verificare la validità del certificato si consulti [www.icim.it](http://www.icim.it)  
This certificate entitles the holder to use the KEYMARK mark of conformity in conjunction with the specified registration number. See HP KEYMARK database for detailed information - To check the validity of this certificate please visit [www.icim.it](http://www.icim.it)

Vincenzo Delacqua  
Rappresentante Direzione / Management Representative

**ICIM S.p.A.**

PRIMA EMISSIONE  
FIRST ISSUE

**04/11/2022**

EMISSIONE CORRENTE  
CURRENT ISSUE

**04/11/2022**

DATA DI SCADENZA  
EXPIRING DATE

**03/11/2032**

[Login](#)

Summary of	Bosch CS3000 AWP 31/36/41	Reg. No.	ICIM-PDC-000180
Certificate Holder			
Name	Bosch Thermotechnik GmbH		
Address	Junkersstraße 20 - 24	Zip	73249
City	Wernau	Country	Germany
Certification Body	ICIM S.p.A.		
Subtype title	Bosch CS3000 AWP 31/36/41		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	14 kg		
Certification Date	04.11.2022		
Testing basis	Heat Pump KEYMARK V10		

## Model: CS3000AWP 31

<b>Configure model</b>	
Model name	CS3000AWP 31
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	49.95 kW	46.5 kW
El input	11.33 kW	17.22 kW
COP	4.41	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	75 dB(A)	75 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	126 %
Prated	34.1 kW	33.2 kW
SCOP	4.33	3.24
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	30.13 kW	26.6 kW
COP Tj = -7°C	2.81	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	21.36 kW	18.78 kW
COP Tj = +2°C	4.47	3.26
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.09 kW	23.27 kW
COP Tj = +7°C	5.61	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.72 kW	28.35 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.27	6.23
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	30.13 kW	28.13 kW
COP Tj = Tbiv	2.81	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.65 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	1.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	19.24 kW
Annual energy consumption Qhe	16247 kWh	21227 kWh

## Model: CS3000AWP 31 MB

<b>Configure model</b>	
Model name	CS3000AWP 31 MB
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	49.95 kW	46.5 kW
El input	11.33 kW	17.22 kW
COP	4.41	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	75 dB(A)	75 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	126 %
Prated	34.1 kW	33.2 kW
SCOP	4.33	3.24
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	30.13 kW	26.6 kW
COP Tj = -7°C	2.81	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	21.36 kW	18.78 kW
COP Tj = +2°C	4.47	3.26
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.09 kW	23.27 kW
COP Tj = +7°C	5.61	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.72 kW	28.35 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.27	6.23
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	30.13 kW	28.13 kW
COP Tj = Tbiv	2.81	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.65 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	1.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	19.24 kW
Annual energy consumption Qhe	16247 kWh	21227 kWh



## Model: CS3000AWP 31 P

<b>Configure model</b>	
Model name	CS3000AWP 31 P
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	49.95 kW	46.5 kW
El input	11.33 kW	17.22 kW
COP	4.41	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	75 dB(A)	75 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	126 %
Prated	34.1 kW	33.2 kW
SCOP	4.33	3.24
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	30.13 kW	26.6 kW
COP Tj = -7°C	2.81	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	21.36 kW	18.78 kW
COP Tj = +2°C	4.47	3.26
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.09 kW	23.27 kW
COP Tj = +7°C	5.61	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.72 kW	28.35 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.27	6.23
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	30.13 kW	28.13 kW
COP Tj = Tbiv	2.81	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.65 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	1.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	19.24 kW
Annual energy consumption Qhe	16247 kWh	21227 kWh

## Model: CS3000AWP 31 S

<b>Configure model</b>	
Model name	CS3000AWP 31 S
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	49.95 kW	46.5 kW
El input	11.33 kW	17.22 kW
COP	4.41	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	75 dB(A)	75 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	126 %
Prated	34.1 kW	33.2 kW
SCOP	4.33	3.24
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	30.13 kW	26.6 kW
COP Tj = -7°C	2.81	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	21.36 kW	18.78 kW
COP Tj = +2°C	4.47	3.26
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.09 kW	23.27 kW
COP Tj = +7°C	5.61	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.72 kW	28.35 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.27	6.23
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	30.13 kW	28.13 kW
COP Tj = Tbiv	2.81	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.65 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.6	1.1
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	19.24 kW
Annual energy consumption Qhe	16247 kWh	21227 kWh

## Model: CS3000AWP 36

<b>Configure model</b>	
Model name	CS3000AWP 36
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	54.15 kW	51.91 kW
El input	12.83 kW	19.37 kW
COP	4.22	2.68

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	78 dB(A)	78 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	125 %
Prated	38.6 kW	37.27 kW
SCOP	4.33	3.19
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	34.16 kW	30.48 kW
COP Tj = -7°C	2.76	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.74 kW	20.42 kW
COP Tj = +2°C	4.41	3.17
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.15 kW	23.63 kW
COP Tj = +7°C	5.53	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.8 kW	28.56 kW



This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.15	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	34.16 kW	31.53 kW
COP Tj = Tbiv	2.76	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.22 kW	15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	22.27 kW
Annual energy consumption Qhe	18442 kWh	24126 kWh

## Model: CS3000AWP 36 MB

<b>Configure model</b>	
Model name	CS3000AWP 36 MB
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	54.15 kW	51.91 kW
El input	12.83 kW	19.37 kW
COP	4.22	2.68

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	78 dB(A)	78 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	125 %
Prated	38.6 kW	37.27 kW
SCOP	4.33	3.19
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	34.16 kW	30.48 kW
COP Tj = -7°C	2.76	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.74 kW	20.42 kW
COP Tj = +2°C	4.41	3.17
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.15 kW	23.63 kW
COP Tj = +7°C	5.53	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.8 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.15	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	34.16 kW	31.53 kW
COP Tj = Tbiv	2.76	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.22 kW	15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	22.27 kW
Annual energy consumption Qhe	18442 kWh	24126 kWh

## Model: CS3000AWP 36 P

<b>Configure model</b>	
Model name	CS3000AWP 36 P
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	54.15 kW	51.91 kW
El input	12.83 kW	19.37 kW
COP	4.22	2.68

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	78 dB(A)	78 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	125 %
Prated	38.6 kW	37.27 kW
SCOP	4.33	3.19
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	34.16 kW	30.48 kW
COP Tj = -7°C	2.76	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.74 kW	20.42 kW
COP Tj = +2°C	4.41	3.17
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.15 kW	23.63 kW
COP Tj = +7°C	5.53	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.8 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.15	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	34.16 kW	31.53 kW
COP Tj = Tbiv	2.76	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.22 kW	15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	22.27 kW
Annual energy consumption Qhe	18442 kWh	24126 kWh

## Model: CS3000AWP 36 S

Configure model	
Model name	CS3000AWP 36 S
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	54.15 kW	51.91 kW
El input	12.83 kW	19.37 kW
COP	4.22	2.68

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



<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	78 dB(A)	78 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	170 %	125 %
Prated	38.6 kW	37.27 kW
SCOP	4.33	3.19
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	34.16 kW	30.48 kW
COP Tj = -7°C	2.76	1.87
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.74 kW	20.42 kW
COP Tj = +2°C	4.41	3.17
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.15 kW	23.63 kW
COP Tj = +7°C	5.53	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.8 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.15	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	34.16 kW	31.53 kW
COP Tj = Tbiv	2.76	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.22 kW	15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.4 kW	22.27 kW
Annual energy consumption Qhe	18442 kWh	24126 kWh

## Model: CS3000AWP 41

<b>Configure model</b>	
Model name	CS3000AWP 41
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	62.2 kW	56.69 kW
El input	15.43 kW	21 kW
COP	4.03	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	80 dB(A)	80 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	168 %	124 %
Prated	43 kW	40.32 kW
SCOP	4.28	3.16
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.01 kW	33.01 kW
COP Tj = -7°C	2.75	1.86
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.78 kW	21.39 kW
COP Tj = +2°C	4.35	3.12
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.19 kW	23.63 kW
COP Tj = +7°C	5.44	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.84 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.04	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	38.01 kW	34.12 kW
COP Tj = Tbiv	2.75	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	35.92 kW	16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.2
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.04 kW	24.32 kW
Annual energy consumption Qhe	20714 kWh	26340 kWh

## Model: CS3000AWP 41 MB

<b>Configure model</b>	
Model name	CS3000AWP 41 MB
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	62.2 kW	56.69 kW
El input	15.43 kW	21 kW
COP	4.03	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	80 dB(A)	80 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	168 %	124 %
Prated	43 kW	40.32 kW
SCOP	4.28	3.16
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.01 kW	33.01 kW
COP Tj = -7°C	2.75	1.86
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.78 kW	21.39 kW
COP Tj = +2°C	4.35	3.12
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.19 kW	23.63 kW
COP Tj = +7°C	5.44	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.84 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.04	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	38.01 kW	34.12 kW
COP Tj = Tbiv	2.75	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	35.92 kW	16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.2
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.04 kW	24.32 kW
Annual energy consumption Qhe	20714 kWh	26340 kWh



## Model: CS3000AWP 41 P

<b>Configure model</b>	
Model name	CS3000AWP 41 P
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	62.2 kW	56.69 kW
El input	15.43 kW	21 kW
COP	4.03	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	80 dB(A)	80 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	168 %	124 %
Prated	43 kW	40.32 kW
SCOP	4.28	3.16
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.01 kW	33.01 kW
COP Tj = -7°C	2.75	1.86
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.78 kW	21.39 kW
COP Tj = +2°C	4.35	3.12
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.19 kW	23.63 kW
COP Tj = +7°C	5.44	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.84 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.04	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	38.01 kW	34.12 kW
COP Tj = Tbiv	2.75	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	35.92 kW	16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.2
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.04 kW	24.32 kW
Annual energy consumption Qhe	20714 kWh	26340 kWh

## Model: CS3000AWP 41 S

<b>Configure model</b>	
Model name	CS3000AWP 41 S
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

<b>General Data</b>	
Power supply	3x400V 50Hz

### Heating

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	62.2 kW	56.69 kW
El input	15.43 kW	21 kW
COP	4.03	2.7

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

### Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level outdoor	80 dB(A)	80 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	168 %	124 %
Prated	43 kW	40.32 kW
SCOP	4.28	3.16
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.01 kW	33.01 kW
COP Tj = -7°C	2.75	1.86
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	22.78 kW	21.39 kW
COP Tj = +2°C	4.35	3.12
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	25.19 kW	23.63 kW
COP Tj = +7°C	5.44	4.49
Cdh Tj = +7 °C	0.95	0.98
Pdh Tj = 12°C	29.84 kW	28.56 kW

This information was generated by the HP KEYMARK database on 19 Dec 2022

COP Tj = 12°C	7.04	6.25
Cdh Tj = +12 °C	0.95	0.98
Pdh Tj = Tbiv	38.01 kW	34.12 kW
COP Tj = Tbiv	2.75	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	35.92 kW	16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.2
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.9	0.9
WTOL	60 °C	60 °C
Poff	90 W	90 W
PTO	150 W	150 W
PSB	90 W	90 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.04 kW	24.32 kW
Annual energy consumption Qhe	20714 kWh	26340 kWh