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Summary of	Aquarea Split 3-5 kW STD (J Series)	Reg. No.	011-1W0207
Certificate Holder			
Name	Panasonic Marketing Europe GmbH		
Address	Hagenauer Strasse 43, Wiesbaden	Zip	65203
City	Wiesbaden	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	Aquarea Split 3-5 kW STD (J Series)		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	0.9 kg		
Certification Date	08.01.2020		
Testing basis	HP KEYMARK certification scheme rules V7		

## Model: WH-ADC0309J3E5 / WH-UD03JE5

Configure model	
Model name	WH-ADC0309J3E5 / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

### Average Climate

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**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Model: WH-ADC0309J3E5 / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5 / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

### Average Climate

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW



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COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5B / WH-UD03JE5

## Configure model

Model name	WH-ADC0309J3E5B / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

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

### EN 14511-2

	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW



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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP T <sub>j</sub> = -15°C (if TOL < -20°C)	2.29	1.76
Cdh T <sub>j</sub> = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5AN / WH-UD03JE5

Configure model	
Model name	WH-ADC0309J3E5AN / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## Average Climate



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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate



<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5UK / WH-UD03JE5

Configure model	
Model name	WH-ADC0309J3E5UK / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5B / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5B / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW



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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5AN / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5AN / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW



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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP T <sub>j</sub> = -15°C (if TOL<-20°C)	2.29	1.76
Cdh T <sub>j</sub> = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5UK / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5UK / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

## Average Climate



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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	155 %
COP	3.88
Heating up time	1:28 h:min
Standby power input	27.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Colder Climate



<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:28 h:min
Standby power input	33.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## Model: WH-SDC0305J3E5 / WH-UD03JE5

Configure model	
Model name	WH-SDC0305J3E5 / WH-UD03JE5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

### Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Model: WH-SDC0305J3E5 / WH-UD05JE5

Configure model	
Model name	WH-SDC0305J3E5 / WH-UD05JE5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

### Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc Tj = 35°C</sub>	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc Tj = 30°C</sub>	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc Tj = 25°C</sub>	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc Tj = 20°C</sub>	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

# Model: WH-ADC0309J3E5C / WH-UD03JE5

## Configure model

Model name	WH-ADC0309J3E5C / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

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

### EN 14511-2

	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## Average Climate

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	154 %
COP	3.86
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Colder Climate

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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:32 h:min
Standby power input	34.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5ANC / WH-UD03JE5

Configure model	
Model name	WH-ADC0309J3E5ANC / WH-UD03JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW



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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP T <sub>j</sub> = -15°C (if TOL<-20°C)	2.29	1.76
Cdh T <sub>j</sub> = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.00 kW	kW
EER T <sub>j</sub> = 35°C	3.95	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.21 kW	kW
EER T <sub>j</sub> = 30°C	5.37	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.42 kW	kW
EER T <sub>j</sub> = 25°C	7.44	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.63 kW	kW
EER T <sub>j</sub> = 20°C	8.93	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	167 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	154 %
COP	3.86
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:32 h:min
Standby power input	34.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5C / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5C / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

## Average Climate

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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW



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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
T <sub>biv</sub>	-20 °C	-20 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C	3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C	1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	154 %
COP	3.86
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Colder Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:32 h:min
Standby power input	34.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

# Model: WH-ADC0309J3E5ANC / WH-UD05JE5

Configure model	
Model name	WH-ADC0309J3E5ANC / WH-UD05JE5
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

## Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	1.00 kW	1.84 kW
COP	5.00	2.72

## Average Climate



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

**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55

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

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	245 %	165 %
Prated	4.00 kW	4.00 kW

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

SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W

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

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Colder Climate

<b>EN 14825</b>			
		<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$		157 %	110 %
Prated		3.00 kW	2.00 kW
SCOP		4.00	2.83
T <sub>biv</sub>		-20 °C	-20 °C
TOL		-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C		1.80 kW	1.20 kW
COP T <sub>j</sub> = -7°C		3.26	2.16
C <sub>dh</sub> T <sub>j</sub> = -7 °C		0.950	0.950
P <sub>dh</sub> T <sub>j</sub> = +2°C		1.80 kW	1.40 kW

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

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL<-20°C)	2.40	1.70

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

COP Tj = -15°C (if TOL<-20°C)	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

<b>EN 14511-2</b>		
	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
El input	1.50 kW	1.12 kW
Cooling capacity	4.50	4.80
EER	3.00	4.29

<b>EN 14825</b>		
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This information was generated by the HP KEYMARK database on 18 Mar 2022

	<b>+7°C/+12°C</b>	<b>+18°C/+23°C</b>
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	
P <sub>dc</sub> T <sub>j</sub> = 35°C	4.00 kW	kW
EER T <sub>j</sub> = 35°C	3.47	
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.95 kW	kW
EER T <sub>j</sub> = 30°C	5.12	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.89 kW	kW
EER T <sub>j</sub> = 25°C	7.31	
C <sub>dc</sub>	0.9	
P <sub>dc</sub> T <sub>j</sub> = 20°C	0.84 kW	kW
EER T <sub>j</sub> = 20°C	9.26	
C <sub>dc</sub>	0.9	
P <sub>off</sub>	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Q <sub>ce</sub>	226 kWh	kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Warmer Climate

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	154 %
COP	3.86
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## Colder Climate



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

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	1:32 h:min
Standby power input	34.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l