

#### Page 1 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

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	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

General Data	
Power supply	1x230V 50Hz

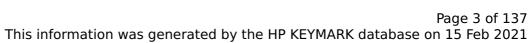
# Heating

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
СОР	5.33	2.81

## **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		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	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
$COPTj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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



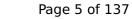


Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825		
Low temperature	Medium temperature	
245 %	165 %	
4.00 kW	4.00 kW	
6.20	4.20	
2 °C	2 °C	
2 °C	2 °C	
	245 % 4.00 kW 6.20 2 °C	





This information was genera	ited by the HE KLIMAI	NK database on 13 Teb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = $+7^{\circ}$ C	2.60 kW	2.50 kW
$COPTj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
РСК	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



This information was generated by the Till RETHARK database on 15 Teb 2021				
Cdh	0.860	0.890		
Pdh Tj = 12°C	1.60 kW	1.50 kW		
COP Tj = 12°C	9.00	7.60		
Cdh	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		
РТО	26 W	26 W		
PSB	8 W	8 W		
PCK	8 W	8 W		
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz		
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		
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76		
Cdh	0.980	0.970		



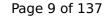
 $$\operatorname{\textit{Page}}\xspace$  8 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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

## Cooling

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

#### EN 14825





The internation trac general	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	167 kWh	kWh

# Domestic Hot Water (DHW)

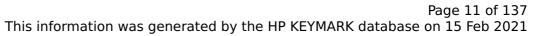
## Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

## Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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	



# Model: WH-ADC0309J3E5 / WH-UD05JE5

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	
СОР	5.00	2.72	

## **Average Climate**

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	200 %	136 %
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# Page 13 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
$COPTj = +2^{\circ}C$	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = $+7^{\circ}$ C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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
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Page 14 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	<u> </u>	
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	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

#### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C



# Page 15 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	THE TIP KLIMA	RK database on 15 Feb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = $+7^{\circ}$ C	2.60 kW	2.50 kW
$COPTj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
РСК	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

#### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# $$\operatorname{Page}\ 17$$ of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

# Cooling

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

#### EN 14825



Page 19 of 137

This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	226 kWh	kWh

# Domestic Hot Water (DHW)

## **Average Climate**

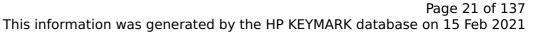


EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	3.30	
Heating up time	1:28 h:min	
Standby power input	30.0 W	
Reference hot water temperature	52.4 °C	
Mixed water at 40°C	239	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

## Colder Climate





**EN 16147** Declared load profile 99 % Efficiency ηDHW COP 2.48 Heating up time 1:28 h:min Standby power input 33.0 W 52.4 °C Reference hot water temperature Mixed water at 40°C 239 I



# Model: WH-ADC0309J3E5B / WH-UD03JE5

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	

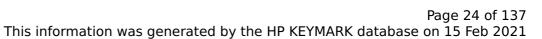
EN 14511-2				
Low temperature Medium temperature				
Heat output	3.20 kW	3.20 kW		
El input	0.60 kW	1.14 kW		
СОР	5.33	2.81		

## **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



This information was gener	The HP KEYMA	RK database on 15 Feb 2023
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	0.980	0.980
Pdh Tj = $+2$ °C	2.00 kW	1.60 kW
$COPTj = +2^{\circ}C$	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = $+7^{\circ}$ C	1.40 kW	1.10 kW
$COP Tj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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
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Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C



#### Page 25 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

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Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 27 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

# Cooling

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

#### EN 14825



Page 29 of 137

This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	167 kWh	kWh

## Domestic Hot Water (DHW)

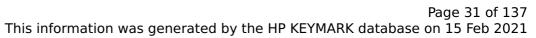
## **Average Climate**

EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

## Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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	



# This information was generated by the HP KEYMARK database on 15 Feb 2021 Model: WH-ADC0309J3E5AN / WH-UD03JE5

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		
СОР	5.33	2.81		

## **Average Climate**

Low temperature Medium temperature	EN 14825		
	Low temperature Medium temperature		
η <sub>s</sub> 200 % 136 %	200 % 136 %	$\eta_{s}$	



Page 33 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP KEYMARK database on 15 Feb				
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	0.980	0.980		
Pdh Tj = +2°C	2.00 kW	1.60 kW		
$COPTj = +2^{\circ}C$	5.14	3.42		
Cdh	0.930	0.940		
Pdh Tj = $+7^{\circ}$ C	1.40 kW	1.10 kW		
$COP Tj = +7^{\circ}C$	6.80	4.43		
Cdh	0.870	0.900		
Pdh Tj = 12°C	1.60 kW	1.40 kW		
COP Tj = 12°C	9.50	6.97		
Cdh	0.840	0.570		
Pdh Tj = Tbiv	4.00 kW	2.90 kW		
COP Tj = Tbiv	2.60	1.66		
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		



Page 34 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

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	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	245 %	165 %	
Prated	4.00 kW	4.00 kW	
SCOP	6.20	4.20	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	



# Page 35 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

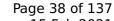
#### Colder Climate

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	157 %	110 %	
Prated	3.00 kW	2.00 kW	
SCOP	4.00	2.83	
Tbiv	-20 °C	-20 °C	
TOL	-22 °C	-22 °C	
Pdh Tj = -7°C	1.80 kW	1.20 kW	
COP Tj = -7°C	3.26	2.16	
Cdh	0.950	0.950	
Pdh Tj = +2°C	1.80 kW	1.40 kW	
COP Tj = +2°C	5.17	3.80	
Cdh	0.920	0.930	
Pdh Tj = +7°C	1.30 kW	1.20 kW	
COP Tj = +7°C	7.00	5.05	



# Page 37 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

Inis information was generated by the HP KEYMARK database on 15 Feb 2			
Cdh	0.860	0.890	
Pdh Tj = 12°C	1.60 kW	1.50 kW	
COP Tj = 12°C	9.00	7.60	
Cdh	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	
РТО	26 W	26 W	
PSB	8 W	8 W	
PCK	8 W	8 W	
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz	
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	
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76	
Cdh	0.980	0.970	





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

### Cooling

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

#### EN 14825



Page 39 of 137

This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	167 kWh	kWh

## Domestic Hot Water (DHW)

### **Average Climate**



EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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 I	

### Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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 I	



## Model: WH-ADC0309J3E5UK / WH-UD03JE5

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		
СОР	5.33	2.81		

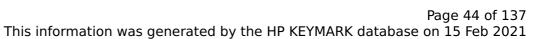
### **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



# Page 43 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
$COPTj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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
	<del>-!</del>	+





Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

Low temperature	Medium temperature
245 %	165 %
4.00 kW	4.00 kW
6.20	4.20
2 °C	2 °C
2 °C	2 °C
	245 % 4.00 kW 6.20 2 °C



# Page 45 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

,	III database on is leb 202
4.00 kW	3.90 kW
3.15	1.80
0.980	0.990
2.60 kW	2.50 kW
5.61	3.55
0.940	0.960
1.50 kW	1.40 kW
8.35	6.00
0.940	0.890
4.00 kW	3.90 kW
3.15	1.80
4.00 kW	3.90 kW
3.15	1.80
55 °C	55 °C
2 W	2 W
26 W	26 W
8 W	8 W
8 W	8 W
230V 1-ph 50Hz	230V 1-ph 50Hz
0.00 kW	0.10 kW
862 kWh	1274 kWh
	3.15  0.980  2.60 kW  5.61  0.940  1.50 kW  8.35  0.940  4.00 kW  3.15  4.00 kW  3.15  55 °C  2 W  26 W  8 W  230V 1-ph 50Hz  0.00 kW

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

#### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = $+7^{\circ}$ C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 47 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP RETMARK database on 15 Feb 202			
Cdh	0.860	0.890	
Pdh Tj = 12°C	1.60 kW	1.50 kW	
COP Tj = 12°C	9.00	7.60	
Cdh	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	
РТО	26 W	26 W	
PSB	8 W	8 W	
PCK	8 W	8 W	
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz	
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	
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76	
Cdh	0.980	0.970	

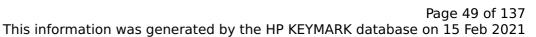


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

### Cooling

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

#### EN 14825





	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

### Domestic Hot Water (DHW)

### Average Climate

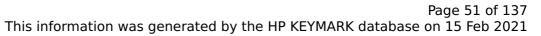


EN 16147	
Declared load profile	L
Efficiency ηDHW	132 %
СОР	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

### Colder Climate





EN 16147	
Declared lead worfile	
Declared load profile	L L
Efficiency ηDHW	99 %
СОР	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 I



## Model: WH-ADC0309J3E5B / WH-UD05JE5

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
СОР	5.00	2.72

#### **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



Page 53 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was genera	Treat by the HI KETMAI	TR database on 13 leb 202.
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
$COP Tj = -7^{\circ}C$	2.66	1.93
Cdh	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
$COPTj = +2^{\circ}C$	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = $+7^{\circ}$ C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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



Page 54 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

#### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
	'	1



# Page 55 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	THE TIP KLIMA	RK database on 15 Feb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = $+7^{\circ}$ C	2.60 kW	2.50 kW
$COPTj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
РСК	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 57 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	<u> </u>	th database on 15 leb 202.
Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

### Cooling

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

#### EN 14825



Page 59 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

The mass same general	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	226 kWh	kWh

### Domestic Hot Water (DHW)

### **Average Climate**



EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

### Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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 I	



## Model: WH-ADC0309J3E5AN / WH-UD05JE5

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	
СОР	5.00	2.72	

### **Average Climate**

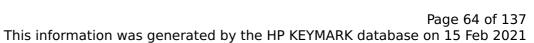
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	200 %	136 %



#### Page 63 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

Prated 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
$COPTj = -7^{\circ}C$	2.66	1.93
Cdh	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
$COPTj = +2^{\circ}C$	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = $+7^{\circ}$ C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

#### Warmer Climate

CEN heat pump KEYMARK

EN 14825		
	Low tempera	ture Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
	·	



#### Page 65 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

ss		11 44 44 44 44 44 44 44 44 44 44 44 44 4
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

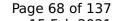
#### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 67 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP KETMARK database on 15 Feb 2021			
Cdh	0.860	0.890	
Pdh Tj = 12°C	1.60 kW	1.50 kW	
COP Tj = 12°C	9.00	7.60	
Cdh	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	
РТО	26 W	26 W	
PSB	8 W	8 W	
PCK	8 W	8 W	
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz	
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	
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76	
Cdh	0.980	0.970	



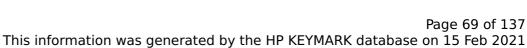


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

### Cooling

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

#### EN 14825





	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	226 kWh	kWh

### Domestic Hot Water (DHW)

### Average Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

### Colder Climate





**EN 16147** Declared load profile 99 % Efficiency ηDHW COP 2.48 Heating up time 1:28 h:min Standby power input 33.0 W 52.4 °C Reference hot water temperature Mixed water at 40°C 239 I



## Model: WH-ADC0309J3E5UK / WH-UD05JE5

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		
СОР	5.00	2.72		

### **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825				
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature		
	$\eta_{s}$	200 %	136 %		



Page 73 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was genera	Treat by the HI KETMAI	TR database on 13 leb 202.
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
$COP Tj = -7^{\circ}C$	2.66	1.93
Cdh	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
$COPTj = +2^{\circ}C$	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = $+7^{\circ}$ C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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



Page 74 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C



# $$\operatorname{\textit{Page}}\xspace$ 75 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

9		III database on 15 reb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 77 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	<u> </u>	th database on 15 leb 202.
Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

# Cooling

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

#### EN 14825



Page 79 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

ins massing gener	+7°C/+12°C	+18°C/+23°C
	., 5,112	. 10 0, 123 0
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	226 kWh	kWh

# Domestic Hot Water (DHW)

# Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	132 %	
СОР	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 I	

### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	155 %	
СОР	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	

# Colder Climate





 $$\operatorname{\textit{Page}}\xspace$  81 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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	

# Model: WH-SDC0305J3E5 / WH-UD03JE5

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	
СОР	5.33	2.81	

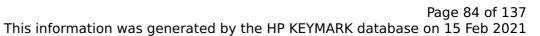
### **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



Page 83 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
$COPTj = +2^{\circ}C$	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
$COP Tj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825			
Low temperature Medium temperature			
$\eta_{s}$		245 %	165 %
Prated		4.00 kW	4.00 kW
SCOP		6.20	4.20
Tbiv		2 °C	2 °C
TOL		2 °C	2 °C



#### Page 85 of 137

### This information was generated by the HP KEYMARK database on 15 Feb 2021

Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



#### Page 87 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

	•	
Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

# Cooling

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

#### EN 14825



 $$\operatorname{\textit{Page}}$$  89 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
PTO	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	167 kWh	kWh



# Model: WH-SDC0305J3E5 / WH-UD05JE5

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
СОР	5.00	2.72

### **Average Climate**

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	200 %	136 %



Page 91 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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
$COP Tj = -7^{\circ}C$	2.66	1.93
Cdh	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
$COPTj = +2^{\circ}C$	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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
	· ·	· -



Page 92 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

Poff	2 W	2 W
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

### Warmer Climate

EN 14825		
	Low temp	perature Medium temperature
$\eta_{s}$	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
	'	'



# Page 93 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	THE TIP KLIMA	RK database on 15 Feb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = $+7^{\circ}$ C	2.60 kW	2.50 kW
$COPTj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
РСК	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

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

### Colder Climate

CEN heat pump KEYMARK

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = $+7^{\circ}$ C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 95 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP KETMARK database on 15 Feb 202			
Cdh	0.860	0.890	
Pdh Tj = 12°C	1.60 kW	1.50 kW	
COP Tj = 12°C	9.00	7.60	
Cdh	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	
РТО	26 W	26 W	
PSB	8 W	8 W	
PCK	8 W	8 W	
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz	
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	
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76	
Cdh	0.980	0.970	



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

# Cooling

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

#### EN 14825



Page 97 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP KETMARK database on 15 Feb 20		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	0 W	W
PSB	5 W	W
PCK	0 W	w
Annual energy consumption Qce	226 kWh	kWh



# Model: WH-ADC0309J3E5C / WH-UD03JE5

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	

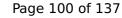
EN 14511-2				
Low temperature Medium temperature				
Heat output	3.20 kW	3.20 kW		
El input	0.60 kW	1.14 kW		
СОР	5.33	2.81		

### **Average Climate**

$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



This information was genera	Treat by the HI KETMAI	TR database on 13 leb 202.
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	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = $+7^{\circ}$ C	1.40 kW	1.10 kW
$COP Tj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825		
Low temperature	Medium temperature	
245 %	165 %	
4.00 kW	4.00 kW	
6.20	4.20	
2 °C	2 °C	
2 °C	2 °C	
	Low temperature  245 %  4.00 kW  6.20  2 °C	



# Page 101 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	THE TIP KLIMA	RK database on 15 Feb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = $+7^{\circ}$ C	2.60 kW	2.50 kW
$COPTj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
РСК	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



 $$\operatorname{\textit{Page}}\ 102$$  of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 103 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	aced by the fill items	TIN database on 15 reb 202
Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970

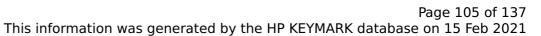


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

# Cooling

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

#### EN 14825





	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	167 kWh	kWh

# Domestic Hot Water (DHW)

# Average Climate

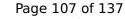


EN 16147		
Declared load profile	L	
Efficiency ηDHW	129 %	
СОР	3.23	
Heating up time	1:32 h:min	
Standby power input	31.0 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	239 I	

### Warmer Climate

EN 16147			
Declared load profile	L		
Efficiency ηDHW	154 %		
СОР	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		

# Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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 I	



# Model: WH-ADC0309J3E5ANC / WH-UD03JE5

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	
СОР	5.33	2.81	

### **Average Climate**

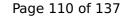
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	200 %	136 %



Page 109 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

	<b>,</b> -	
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	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh	0.930	0.940
Pdh Tj = $+7^{\circ}$ C	1.40 kW	1.10 kW
$COPTj = +7^{\circ}C$	6.80	4.43
Cdh	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

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

#### Warmer Climate

EN 14825			
		Low temperature	Medium temperature
$\eta_{s}$		245 %	165 %
Prated		4.00 kW	4.00 kW
SCOP		6.20	4.20
Tbiv		2 °C	2 °C
TOL		2 °C	2 °C



# Page 111 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



 $$\operatorname{\textit{Page}}\ 112$ of 137$$  This information was generated by the HP KEYMARK database on 15 Feb 2021

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

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# $$\operatorname{\textit{Page}}\ 113$$ of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = -15°C (if TOL $<$ -20°C)	2.29	1.76
Cdh	0.980	0.970



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

## Cooling

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

#### EN 14825



Page 115 of 137

This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	kW
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
PCK	o w	W
Annual energy consumption Qce	167 kWh	kWh

## Domestic Hot Water (DHW)

## Average Climate

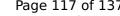


EN 16147		
Declared load profile	L	
Efficiency ηDHW	129 %	
СОР	3.23	
Heating up time	1:32 h:min	
Standby power input	31.0 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	239 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	154 %	
СОР	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	

## Colder Climate





# $$\operatorname{\textit{Page}}\ 117$$ of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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	



## Model: WH-ADC0309J3E5C / WH-UD05JE5

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	
СОР	5.00	2.72	

#### **Average Climate**

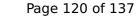
$\begin{array}{ c c c c c }\hline & & Low \ temperature & Medium \ temperature \\ \hline \\ \eta_S & & 200\ \% & & 136\ \% \\ \hline \end{array}$	EN 14825		
η <sub>s</sub> 200 % 136 %		Low temperature	Medium temperature
	$\eta_{s}$	200 %	136 %



#### Page 119 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

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
$COP Tj = -7^{\circ}C$	2.66	1.93
Cdh	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
$COPTj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

#### Warmer Climate

EN 14825			
Low temperature Medium temperatur			
$\eta_{s}$		245 %	165 %
Prated		4.00 kW	4.00 kW
SCOP		6.20	4.20
Tbiv		2 °C	2 °C
TOL		2 °C	2 °C



# Page 121 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

9		iii database on 15 reb 202
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

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

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# Page 123 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

This information was generated by the HP KETMARK database on 15 Feb 202				
Cdh	0.860	0.890		
Pdh Tj = 12°C	1.60 kW	1.50 kW		
COP Tj = 12°C	9.00	7.60		
Cdh	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		
РТО	26 W	26 W		
PSB	8 W	8 W		
PCK	8 W	8 W		
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz		
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		
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76		
Cdh	0.980	0.970		

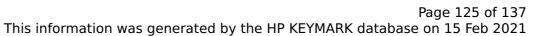


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## Cooling

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

#### EN 14825





	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	226 kWh	kWh

## Domestic Hot Water (DHW)

## Average Climate

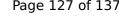


EN 16147		
Declared load profile	L	
Efficiency ηDHW	129 %	
СОР	3.23	
Heating up time	1:32 h:min	
Standby power input	31.0 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	239	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	154 %	
СОР	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	

## Colder Climate





 $$\operatorname{\textit{Page}}\xspace$  127 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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 I	



## Model: WH-ADC0309J3E5ANC / WH-UD05JE5

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	
СОР	5.00	2.72	

## **Average Climate**

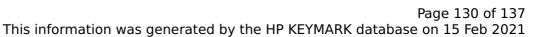
EN 14825		
	Low temperature	Medium temperature
$\eta_s$	200 %	136 %



#### Page 129 of 137

#### This information was generated by the HP KEYMARK database on 15 Feb 2021

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	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
$COP Tj = +7^{\circ}C$	6.95	4.60
Cdh	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1ph 50Hz	230V 1ph 50Hz
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

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

#### Warmer Climate

Low temperature	Medium temperature
245 %	165 %
4.00 kW	4.00 kW
6.20	4.20
2 °C	2 °C
2 °C	2 °C
	245 % 4.00 kW 6.20 2 °C



# Page 131 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

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Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.61	3.55
Cdh	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh



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

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05



# $$\operatorname{\textit{Page}}\ 133$$ of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

	•	
Cdh	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh	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
РТО	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	230V 1-ph 50Hz	230V 1-ph 50Hz
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
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.29	1.76
Cdh	0.980	0.970



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

## Cooling

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

#### EN 14825



Page 135 of 137

This information was generated by the HP KEYMARK database on 15 Feb 2021

	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc	0.9	
Poff	5 W	W
РТО	o w	W
PSB	5 W	W
РСК	o w	W
Annual energy consumption Qce	226 kWh	kWh

## Domestic Hot Water (DHW)

## Average Climate

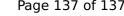


EN 16147		
Declared load profile	L	
Efficiency ηDHW	129 %	
СОР	3.23	
Heating up time	1:32 h:min	
Standby power input	31.0 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	239 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	154 %	
СОР	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	

## Colder Climate





 $$\operatorname{\textit{Page}}\xspace$  137 of 137 This information was generated by the HP KEYMARK database on 15 Feb 2021

EN 16147		
Declared load profile	L	
Efficiency ηDHW	99 %	
СОР	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 I	