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Summary of	Aquarea Split 9 kW STD (J Series)	Reg. No.	011-1W0209
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 9 kW STD (J Series)		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.27 kg		
Certification Date	08.01.2020		
Testing basis	HP KEYMARK certification scheme rules V7		

Model: WH-ADC0309J3E5 / WH-UD09JE5

Configure model	
Model name	WH-ADC0309J3E5 / WH-UD09JE5
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	2.62 kW	1.74 kW
Cooling capacity	7.60	7.60
EER	2.90	4.37

EN 14825

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	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

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Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

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η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

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WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

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Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-ADC0309J3E5B / WH-UD09JE5

Configure model	
Model name	WH-ADC0309J3E5B / WH-UD09JE5
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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Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
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Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Cooling

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C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

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	Low temperature	Medium temperature
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Average Climate

EN 12102-1		
	Low temperature	Medium temperature
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Poff	2 W	2 W
PTO	44 W	44 W
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PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

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Efficiency η_{DHW}	99 %
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Model: WH-ADC0309J3E5AN / WH-UD09JE5

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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

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El input	2.01 kW	3.22 kW
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Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Cooling

EN 14511-2

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Warmer Climate

EN 12102-1

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PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

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Supplementary Heater: PSUP	2.30 kW	2.30 kW
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COP Tj = -15°C (if TOL<-20°C)	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

Average Climate

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Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-ADC0309J3E5UK / WH-UD09JE5

Configure model	
Model name	WH-ADC0309J3E5UK / WH-UD09JE5
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	2.62 kW	1.74 kW
Cooling capacity	7.60	7.60
EER	2.90	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.70	4.90
COP Tj = -15°C (if TOL<-20°C)	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-SDC0709J3E5 / WH-UD09JE5

Configure model	
Model name	WH-SDC0709J3E5 / WH-UD09JE5
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	2.62 kW	1.74 kW
Cooling capacity	7.60	7.60
EER	2.90	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.70	4.90
COP Tj = -15°C (if TOL<-20°C)	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Qhe	2949 kWh	4354 kWh

Model: WH-ADC0309J3E5 / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5 / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.70	4.90
COP Tj = -15°C (if TOL<-20°C)	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-ADC0309J3E5B / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5B / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η _s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-ADC0309J3E5AN / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5AN / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-ADC0309J3E5UK / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5UK / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η _s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	140 %
COP	3.50
Heating up time	1:22 h:min
Standby power input	30.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	99 %
COP	2.47
Heating up time	1:22 h:min
Standby power input	37.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

Model: WH-SDC0709J3E5 / WH-UD09JE5-1

Configure model	
Model name	WH-SDC0709J3E5 / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η _s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Qhe	2949 kWh	4354 kWh

Model: WH-ADC0309J3E5C / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5C / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.70	4.90
COP Tj = -15°C (if TOL<-20°C)	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	134 %
COP	3.35
Heating up time	1:01 h:min
Standby power input	34.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	1:01 h:min
Standby power input	45.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	116 %
COP	2.90
Heating up time	1:01 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l

Model: WH-ADC0309J3E5ANC / WH-UD09JE5-1

Configure model	
Model name	WH-ADC0309J3E5ANC / WH-UD09JE5-1
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 14511-2		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

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

Cooling

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.02 kW	1.74 kW
Cooling capacity	8.20	7.60
EER	2.72	4.37

EN 14825

This information was generated by the HP KEYMARK database on 22 Jun 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	
P _{dc} T _j = 35°C	7.00 kW	kW
EER T _j = 35°C	2.95	
P _{dc} T _j = 30°C	5.16 kW	kW
EER T _j = 30°C	4.00	
C _{dc}	0.9	
P _{dc} T _j = 25°C	3.32 kW	kW
EER T _j = 25°C	5.91	
C _{dc}	0.9	
P _{dc} T _j = 20°C	1.47 kW	kW
EER T _j = 20°C	7.54	
C _{dc}	0.9	
P _{off}	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Q _{ce}	482 kWh	kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.10 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.50 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 22 Jun 2022

η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5.70	4.90
COP T _j = -15°C (if TOL<-20°C)	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η _s	193 %	130 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

This information was generated by the HP KEYMARK database on 22 Jun 2022

Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Q _{he}	2949 kWh	4354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	134 %
COP	3.35
Heating up time	1:01 h:min
Standby power input	34.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	1:01 h:min
Standby power input	45.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	234 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	116 %
COP	2.90
Heating up time	1:01 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l