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Summary of	Aquarea Split 12-16 kW STD (H Series)	Reg. No.	011-1W0515
Certificate Holder			
Name	Panasonic Marketing Europe GmbH	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 12-16 kW STD (H Series)		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.55 kg		
Certification Date	08.12.2021		
Testing basis	HP KEYMARK certification scheme rules rev. 9		



Model: WH-ADC1216H6E5 / WH-UD12HE5

Configure model		
Model name	WH-ADC1216H6E5 / WH-UD12HE5	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

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	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



Low temperature Medium temperature Sound power level indoor 46 dB(A) 46 dB(A) Sound power level outdoor 65 dB(A) 65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12° C 6.10 kW 5.80 kW 7.88 6.12 $COP Tj = 12^{\circ}C$ Cdh Tj = +12 °C 0.980 0.990 Pdh Tj = Tbiv10.00 kW 8.00 kW COP Tj = Tbiv 2.68 2.05 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 10.00 kW 8.00 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 2.68 2.05 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 0.900 0.900 WTOL 55 °C 55 °C Poff 3 W 3 W PTO 12 W 12 W **PSB** 12 W 12 W

39 W

Electricity

0.00 kW

4286 kWh

39 W

Electricity

0.00 kW

4840 kWh

Warmer Climate

Supplementary Heater: PSUP

Annual energy consumption Qhe

Supplementary Heater: Type of energy input

PCK



	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
COP Tj = +2°C	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	7.10 kW	6.10 kW
COP Tj = +7°C	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990





Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	95 %
СОР	2.37
Heating up time	0:58 h:min
Standby power input	42.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	256 l

EN 16147	
Declared load profile	L
Efficiency ηDHW	110 %
СОР	2.75
Heating up time	0:58 h:min
Standby power input	36.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	256 l



Model: WH-ADC1216H6E5UK / WH-UD12HE5

Configure model		
Model name	WH-ADC1216H6E5UK / WH-UD12HE5	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 50Hz	

Heating

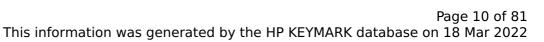
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990



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	CEN heat pump
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Pdh Tj = 12°C	6.10 kW	5.80 kW
COP Tj = 12°C	7.88	6.12
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.68	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4286 kWh	4840 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
$COP Tj = +2^{\circ}C$	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = $+7^{\circ}$ C	7.10 kW	6.10 kW
$COP Tj = +7^{\circ}C$	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990



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

Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	95 %
СОР	2.37
Heating up time	0:58 h:min
Standby power input	42.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	256 I

EN 16147		
Declared load profile	L	
Efficiency ηDHW	110 %	
СОР	2.75	
Heating up time	0:58 h:min	
Standby power input	36.0 W	
Reference hot water temperature	52.7 °C	
Mixed water at 40°C	256 l	



Model: WH-ADC1216H6E5C / WH-UD12HE5

Configure model		
Model name	WH-ADC1216H6E5C / WH-UD12HE5	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

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	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
Low temperature	Medium temperature	
190 %	134 %	
10.00 kW	8.00 kW	
4.82	3.42	
-10 °C	-10 °C	
-10 °C	-10 °C	
8.90 kW	7.20 kW	
3.18	2.27	
1.000	1.000	
5.20 kW	4.30 kW	
4.67	3.25	
0.990	0.990	
5.20 kW	4.90 kW	
6.15	4.36	
0.990	0.990	
	Low temperature 190 % 10.00 kW 4.82 -10 °C -10 °C 8.90 kW 3.18 1.000 5.20 kW 4.67 0.990 5.20 kW 6.15	

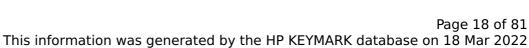


6.10 kW	5.80 kW
7.88	6.12
0.980	0.990
10.00 kW	8.00 kW
2.68	2.05
10.00 kW	8.00 kW
2.68	2.05
0.900	0.900
55 °C	55 °C
3 W	3 W
12 W	12 W
12 W	12 W
39 W	39 W
Electricity	Electricity
0.00 kW	0.00 kW
4286 kWh	4840 kWh
	7.88 0.980 10.00 kW 2.68 10.00 kW 2.68 0.900 55 °C 3 W 12 W 12 W 39 W Electricity 0.00 kW



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
$COP Tj = +2^{\circ}C$	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = $+7^{\circ}$ C	7.10 kW	6.10 kW
$COP Tj = +7^{\circ}C$	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990



Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Domestic Hot Water (DHW)

CEN heat pump KEYMARK



EN 16147		
Declared load profile	L	
Efficiency ηDHW	92 %	
СОР	2.31	
Heating up time	0:54 h:min	
Standby power input	39.0 W	
Reference hot water temperature	53.1 °C	
Mixed water at 40°C	228	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.68	
Heating up time	0:54 h:min	
Standby power input	32.0 W	
Reference hot water temperature	53.1 °C	
Mixed water at 40°C	228 I	



Model: WH-ADC0916H9E8 / WH-UD12HE8

Configure model		
Model name	WH-ADC0916H9E8 / WH-UD12HE8	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 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	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990



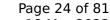
	CEN heat pump
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Pdh Tj = 12°C	6.10 kW	5.80 kW
COP Tj = 12°C	7.88	6.12
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.68	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4286 kWh	4840 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
COP Tj = +2°C	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	7.10 kW	6.10 kW
COP Tj = +7°C	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990





Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	95 %	
СОР	2.37	
Heating up time	0:58 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.7 °C	
Mixed water at 40°C	256 l	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	110 %	
СОР	2.75	
Heating up time	0:58 h:min	
Standby power input	36.0 W	
Reference hot water temperature	52.7 °C	
Mixed water at 40°C	256 I	

Model: WH-ADC0916H9E8AN / WH-UD12HE8

Configure model		
Model name	WH-ADC0916H9E8AN / WH-UD12HE8	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone Warmer Climate		
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 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	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	6.10 kW	5.80 kW
COP Tj = 12°C	7.88	6.12
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.68	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4286 kWh	4840 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	11.20 kW	9.40 kW
COP Tj = +2°C	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = $+7^{\circ}$ C	7.10 kW	6.10 kW
$COP Tj = +7^{\circ}C$	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990





Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	95 %	
СОР	2.37	
Heating up time	0:58 h:min	
Standby power input	42.0 W	
Reference hot water temperature	52.7 °C	
Mixed water at 40°C	256 l	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	110 %	
СОР	2.75	
Heating up time	0:58 h:min	
Standby power input	36.0 W	
Reference hot water temperature	52.7 °C	
Mixed water at 40°C	256 I	



Model: WH-ADC1216H6E5 / WH-UD16HE5

Configure model		
Model name	WH-ADC1216H6E5 / WH-UD16HE5	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

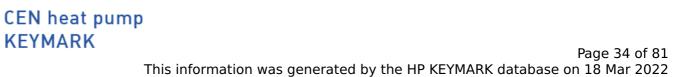
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825			
	Low temperature	Medium temperature	
η_{s}	190 %	130 %	
Prated	12.00 kW	13.00 kW	
SCOP	4.82	3.33	
Tbiv	-10 °C	-3 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	11.10 kW	9.00 kW	
COP Tj = -7°C	2.90	2.07	
Cdh Tj = -7 °C	1.000	1.000	
Pdh Tj = +2°C	6.40 kW	7.10 kW	
COP Tj = +2°C	4.83	3.29	
Cdh Tj = +2 °C	0.990	0.990	
Pdh Tj = +7°C	5.30 kW	4.90 kW	
COP Tj = +7°C	6.11	4.85	
Cdh Tj = +7 °C	0.990	0.990	



	<u>, </u>	
Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
COP Tj = +7°C	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990



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

Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	2801 kWh	3104 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	91 %	
СОР	2.27	
Heating up time	0:44 h:min	
Standby power input	41.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.67	
Heating up time	0:44 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 l	

Model: WH-ADC1216H6E5UK / WH-UD16HE5

Configure model		
Model name	WH-ADC1216H6E5UK / WH-UD16HE5	
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone Warmer Climate		
Reversibility	Yes	
Cooling mode application (optional)	n/a	

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	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

Low temperature	Medium temperature
190 %	130 %
12.00 kW	13.00 kW
4.82	3.33
-10 °C	-3 °C
-10 °C	-10 °C
11.10 kW	9.00 kW
2.90	2.07
1.000	1.000
6.40 kW	7.10 kW
4.83	3.29
0.990	0.990
5.30 kW	4.90 kW
6.11	4.85
0.990	0.990
	190 % 12.00 kW 4.82 -10 °C -10 °C 11.10 kW 2.90 1.000 6.40 kW 4.83 0.990 5.30 kW 6.11





Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
COP Tj = +7°C	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990



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

Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	2801 kWh	3104 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	91 %	
СОР	2.27	
Heating up time	0:44 h:min	
Standby power input	41.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 l	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.67	
Heating up time	0:44 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 I	



Model: WH-ADC1216H6E5C / WH-UD16HE5

Configure model		
Model name	WH-ADC1216H6E5C / WH-UD16HE5	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

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	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	130 %
Prated	12.00 kW	13.00 kW
SCOP	4.82	3.33
Tbiv	-10 °C	-3 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	9.00 kW
COP Tj = -7°C	2.90	2.07
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.40 kW	7.10 kW
COP Tj = +2°C	4.83	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	4.90 kW
COP Tj = +7°C	6.11	4.85
Cdh Tj = +7 °C	0.990	0.990



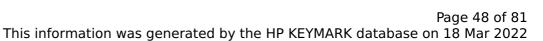


Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
COP Tj = +7°C	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990



12.50 kW	10.70 kW
3.34	2.41
12.50 kW	10.70 kW
3.34	2.41
0.900	0.900
55 °C	55 °C
3 W	3 W
12 W	12 W
12 W	12 W
39 W	39 W
Electricity	Electricity
0.50 kW	0.00 kW
2801 kWh	3104 kWh
	3.34 12.50 kW 3.34 0.900 55 °C 3 W 12 W 12 W 39 W Electricity 0.50 kW

Domestic Hot Water (DHW)

CEN heat pump KEYMARK



EN 16147		
Declared load profile	L	
Efficiency ηDHW	88 %	
СОР	2.21	
Heating up time	0:48 h:min	
Standby power input	35.0 W	
Reference hot water temperature	52.6 °C	
Mixed water at 40°C	225 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	104 %	
СОР	2.60	
Heating up time	0:44 h:min	
Standby power input	32.0 W	
Reference hot water temperature	52.6 °C	
Mixed water at 40°C	225 I	

Model: WH-ADC0916H9E8 / WH-UD16HE8

Configure model		
Model name	WH-ADC0916H9E8 / WH-UD16HE8	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 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	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	130 %
Prated	12.00 kW	13.00 kW
SCOP	4.82	3.33
Tbiv	-10 °C	-3 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	9.00 kW
COP Tj = -7°C	2.90	2.07
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.40 kW	7.10 kW
COP Tj = +2°C	4.83	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	4.90 kW
COP Tj = +7°C	6.11	4.85
Cdh Tj = +7 °C	0.990	0.990



This information was generated by the III RETINANT database on 16 Mai 2022			
Pdh Tj = 12°C	6.20 kW	5.80 kW	
COP Tj = 12°C	7.59	6.11	
Cdh Tj = +12 °C	0.990	0.990	
Pdh Tj = Tbiv	11.80 kW	9.50 kW	
COP Tj = Tbiv	2.77	2.46	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900	
WTOL	55 °C	55 °C	
Poff	3 W	3 W	
РТО	12 W	12 W	
PSB	12 W	12 W	
PCK	39 W	39 W	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	0.20 kW	4.30 kW	
Annual energy consumption Qhe	5146 kWh	8076 kWh	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
COP Tj = +7°C	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990





Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	2801 kWh	3104 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	91 %	
СОР	2.27	
Heating up time	0:44 h:min	
Standby power input	41.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.67	
Heating up time	0:44 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 l	

Model: WH-ADC0916H9E8AN / WH-UD16HE8

Configure model		
Model name WH-ADC0916H9E8AN / WH-UD16HE8		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone Warmer Climate		
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 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	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	130 %
Prated	12.00 kW	13.00 kW
SCOP	4.82	3.33
Tbiv	-10 °C	-3 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	9.00 kW
COP Tj = -7°C	2.90	2.07
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.40 kW	7.10 kW
COP Tj = +2°C	4.83	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	4.90 kW
COP Tj = +7°C	6.11	4.85
Cdh Tj = +7 °C	0.990	0.990

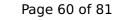


	<u> </u>	
Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
COP Tj = +7°C	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990





Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	2801 kWh	3104 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	91 %	
СОР	2.27	
Heating up time	0:44 h:min	
Standby power input	41.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.67	
Heating up time	0:44 h:min	
Standby power input	38.0 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	253 l	



Model: WH-SDC12H6E5 / WH-UD12HE5

Configure model		
Model name	WH-SDC12H6E5 / WH-UD12HE5	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

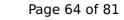
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	6.10 kW	5.80 kW
COP Tj = 12°C	7.88	6.12
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.68	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4286 kWh	4840 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
COP Tj = +2°C	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	7.10 kW	6.10 kW
COP Tj = +7°C	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990



	<u> </u>	
Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh

Model: WH-SDC12H9E8 / WH-UD12HE8

Configure model		
Model name	WH-SDC12H9E8 / WH-UD12HE8	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

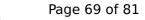
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.53 kW	4.10 kW
СОР	4.74	2.93



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	134 %
Prated	10.00 kW	8.00 kW
SCOP	4.82	3.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	7.20 kW
COP Tj = -7°C	3.18	2.27
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.20 kW	4.30 kW
COP Tj = +2°C	4.67	3.25
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.20 kW	4.90 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	6.10 kW	5.80 kW
COP Tj = 12°C	7.88	6.12
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.00 kW	8.00 kW
COP Tj = Tbiv	2.68	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	8.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4286 kWh	4840 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	159 %
Prated	11.00 kW	9.00 kW
SCOP	6.21	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.20 kW	9.40 kW
COP Tj = +2°C	3.61	2.43
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	7.10 kW	6.10 kW
COP Tj = +7°C	5.53	3.29
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.00 kW	5.90 kW
COP Tj = 12°C	7.82	5.51
Cdh Tj = +12 °C	0.980	0.990



Pdh Tj = Tbiv	11.20 kW	9.40 kW
COP Tj = Tbiv	3.61	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.20 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2368 kWh	2970 kWh



Model: WH-SDC12H6E5 / WH-UD16HE5

Configure model		
Model name	WH-SDC12H6E5 / WH-UD16HE5	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

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	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	130 %
Prated	12.00 kW	13.00 kW
SCOP	4.82	3.33
Tbiv	-10 °C	-3 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	9.00 kW
COP Tj = -7°C	2.90	2.07
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.40 kW	7.10 kW
COP Tj = +2°C	4.83	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	4.90 kW
COP Tj = +7°C	6.11	4.85
Cdh Tj = +7 °C	0.990	0.990





Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
$COP Tj = +7^{\circ}C$	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990



	<u> </u>	
Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	2801 kWh	3104 kWh



Model: WH-SDC16H9E8 / WH-UD16HE8

Configure model		
Model name	WH-SDC16H9E8 / WH-UD16HE8	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

Heating

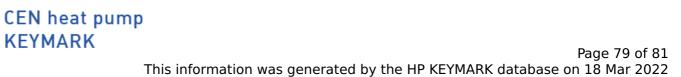
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure pas	
Defrost test	passed
Starting and operating test passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	14.50 kW
El input	3.74 kW	5.33 kW
СОР	4.28	2.72



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	190 %	130 %
Prated	12.00 kW	13.00 kW
SCOP	4.82	3.33
Tbiv	-10 °C	-3 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	9.00 kW
COP Tj = -7°C	2.90	2.07
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.40 kW	7.10 kW
COP Tj = +2°C	4.83	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	4.90 kW
COP Tj = +7°C	6.11	4.85
Cdh Tj = +7 °C	0.990	0.990



	· · · · · · · · · · · · · · · · · · ·	
Pdh Tj = 12°C	6.20 kW	5.80 kW
COP Tj = 12°C	7.59	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	11.80 kW	9.50 kW
COP Tj = Tbiv	2.77	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	4.30 kW
Annual energy consumption Qhe	5146 kWh	8076 kWh



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	245 %	169 %
Prated	13.00 kW	10.00 kW
SCOP	6.20	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.50 kW	10.70 kW
COP Tj = +2°C	3.34	2.41
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.40 kW	6.70 kW
$COP Tj = +7^{\circ}C$	5.61	3.79
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.20 kW	5.90 kW
COP Tj = 12°C	7.72	5.46
Cdh Tj = +12 °C	0.990	0.990



Annual energy consumption Qhe

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3104 kWh

I his information was genera	ted by the HP KEYMAR	KK database on 18 Mar 202
Pdh Tj = Tbiv	12.50 kW	10.70 kW
COP Tj = Tbiv	3.34	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	10.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.34	2.41
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	3 W	3 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.00 kW

2801 kWh