

## Subtype Aquarena Split 5-9 kW STD (K Series)

Certificate Holder	Panasonic Marketing Europe GmbH
Address	Hagenauer Strasse 43, Wiesbaden
ZIP	65203
City	Wiesbaden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Aquarena Split 5-9 kW STD (K Series)
Registration number	011-1W0605
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.3 kg
Certification Date	28.04.2023
Testing basis	HP KEYMARK certification scheme rules V12

## Model WH-ADC0309K3E5 / WH-UDZ05KE5

Model name	WH-ADC0309K3E5 / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

## Model WH-ADC0309K3E5UK / WH-UDZ05KE5

Model name	WH-ADC0309K3E5UK / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

## Model WH-ADC0309K3E5AN / WH-UDZ05KE5

Model name	WH-ADC0309K3E5AN / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	



**Model WH-ADC0309K3E5B / WH-UDZ05KE5**

Model name	WH-ADC0309K3E5B / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

**Model WH-ADC0309K6E5 / WH-UDZ05KE5**

Model name	WH-ADC0309K6E5 / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W



PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

**Model WH-ADC0309K6E5AN / WH-UDZ05KE5**

Model name	WH-ADC0309K6E5AN / WH-UDZ05KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:32 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:32 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:32 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	3625 kWh	3338 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.94	3.32
COP T <sub>j</sub> = -15°C (if TOL	2.80	1.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.12 kW	4.05 kW
COP T <sub>j</sub> = +2°C	3.05	3.00
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.27 kW	2.61 kW
COP T <sub>j</sub> = +7°C	5.75	3.63
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.920	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.32 kW
COP T <sub>j</sub> = 12°C	8.58	6.17
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.00 kW	4.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.89	2.46
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.12 kW	4.05 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.89	2.46
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	1113 kWh	1274 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

**Model WH-ADC0309K3E5 / WH-UDZ07KE5**

Model name	WH-ADC0309K3E5 / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed



Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

**Model WH-ADC0309K3E5UK / WH-UDZ07KE5**

Model name	WH-ADC0309K3E5UK / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

## Model WH-ADC0309K3E5AN / WH-UDZ07KE5

Model name	WH-ADC0309K3E5AN / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

**Model WH-ADC0309K3E5B / WH-UDZ07KE5**

Model name	WH-ADC0309K3E5B / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

**Model WH-ADC0309K6E5 / WH-UDZ07KE5**

Model name	WH-ADC0309K6E5 / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	



## Model WH-ADC0309K6E5AN / WH-UDZ07KE5

Model name	WH-ADC0309K6E5AN / WH-UDZ07KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

## Model WH-ADC0309K3E5 / WH-UDZ09KE5

Model name	WH-ADC0309K3E5 / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W



PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-ADC0309K3E5UK / WH-UDZ09KE5

Model name	WH-ADC0309K3E5UK / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-ADC0309K3E5AN / WH-UDZ09KE5

Model name	WH-ADC0309K3E5AN / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed



Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
$\eta_s$	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-ADC0309K3E5B / WH-UDZ09KE5

Model name	WH-ADC0309K3E5B / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

**Model WH-ADC0309K6E5 / WH-UDZ09KE5**

Model name	WH-ADC0309K6E5 / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-ADC0309K6E5AN / WH-UDZ09KE5

Model name	WH-ADC0309K6E5AN / WH-UDZ09KE5
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	140 %
COP	3.51
Heating up time	1:06 h:min
Standby power input	32.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	113 %
COP	2.82
Heating up time	1:06 h:min
Standby power input	36.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	161 %
COP	4.03
Heating up time	1:06 h:min
Standby power input	28.0 W
Reference hot water temperature	52.8 °C
Mixed water at 40°C	245 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2   Heating		
	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ηs	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W

PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Q <sub>he</sub>	4132 kWh	4967 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.72	4.86
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.72
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.07 kW	6.10 kW
COP T <sub>j</sub> = +2°C	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.51 kW	3.80 kW
COP T <sub>j</sub> = +7°C	5.37	3.51
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.45 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.77	5.80
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.920
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.00 kW	6.00 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.80	2.14
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.07 kW	6.10 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.80	2.14
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-SDC0309K3E5 / WH-UDZ05KE5

Model name	WH-SDC0309K3E5 / WH-UDZ05KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53

Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Qhe	3625 kWh	3338 kWh
Pdh Tj = -15°C (if TOL	4.94	3.32
COP Tj = -15°C (if TOL	2.80	1.77
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.12 kW	4.05 kW
COP Tj = +2°C	3.05	3.00
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	3.27 kW	2.61 kW
COP Tj = +7°C	5.75	3.63
Cdh Tj = +7 °C	0.920	0.940
Pdh Tj = 12°C	3.45 kW	3.32 kW

COP Tj = 12°C	8.58	6.17
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.89	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.12 kW	4.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.89	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1113 kWh	1274 kWh

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

## Model WH-SDC0309K6E5 / WH-UDZ05KE5

Model name	WH-SDC0309K6E5 / WH-UDZ05KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.00 kW	5.00 kW
El input	0.98 kW	1.65 kW
COP	5.10	3.03

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.00	
EER	3.05	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	202 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	5.12	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C



Pdh Tj = -7°C	4.41 kW	4.46 kW
COP Tj = -7°C	2.76	2.30
Cdh Tj = -7 °C	0.970	0.980
Pdh Tj = +2°C	2.64 kW	2.65 kW
COP Tj = +2°C	5.44	3.58
Cdh Tj = +2 °C	0.910	0.940
Pdh Tj = +7°C	2.95 kW	2.77 kW
COP Tj = +7°C	7.15	4.89
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.46 kW	3.37 kW
COP Tj = 12°C	9.55	6.92
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	2.50	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2018 kWh	2894 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	115 %
Prated	6.00 kW	4.00 kW
SCOP	4.08	2.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.58 kW	2.40 kW
COP Tj = -7°C	3.73	2.53
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	4.50	3.53

Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	2.99 kW	2.85 kW
COP Tj = +7°C	7.25	5.61
Cdh Tj = +7 °C	0.900	0.910
Pdh Tj = 12°C	3.49 kW	3.44 kW
COP Tj = 12°C	8.45	7.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.89 kW	3.26 kW
COP Tj = Tbiv	2.80	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.99 kW	3.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.01 kW	0.03 kW
Annual energy consumption Qhe	3625 kWh	3338 kWh
Pdh Tj = -15°C (if TOL	4.94	3.32
COP Tj = -15°C (if TOL	2.80	1.77
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	237 %	165 %
Prated	5.00 kW	4.00 kW
SCOP	6.00	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.12 kW	4.05 kW
COP Tj = +2°C	3.05	3.00
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	3.27 kW	2.61 kW
COP Tj = +7°C	5.75	3.63
Cdh Tj = +7 °C	0.920	0.940
Pdh Tj = 12°C	3.45 kW	3.32 kW

COP Tj = 12°C	8.58	6.17
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	5.00 kW	4.00 kW
COP Tj = Tbiv	3.89	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.12 kW	4.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.89	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1113 kWh	1274 kWh

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.00 kW	
SEER	5.72	
Pdc Tj = 35°C	5.00 kW	
EER Tj = 35°C	3.64	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	3.68 kW	
EER Tj = 30°C	5.18	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.37 kW	
EER Tj = 25°C	6.47	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.05 kW	
EER Tj = 20°C	8.94	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	306 kWh	

## Model WH-SDC0309K3E5 / WH-UDZ07KE5

Model name	WH-SDC0309K3E5 / WH-UDZ07KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.72	4.86
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	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	7.07 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.51 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.45 kW	3.25 kW

COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.00 kW	6.00 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.07 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

## Model WH-SDC0309K6E5 / WH-UDZ07KE5

Model name	WH-SDC0309K6E5 / WH-UDZ07KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.00 kW	7.00 kW
El input	1.44 kW	2.40 kW
COP	4.86	2.92

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.21 kW	
Cooling capacity	6.70	
EER	3.03	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	142 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.62
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C



Pdh Tj = -7°C	6.25 kW	6.23 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.78 kW	3.82 kW
COP Tj = +2°C	5.03	3.69
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	2.95 kW	2.50 kW
COP Tj = +7°C	6.56	4.50
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.44 kW	3.10 kW
COP Tj = 12°C	8.47	6.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.00 kW	6.19 kW
COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.82 kW
Annual energy consumption Qhe	2949 kWh	3999 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.72	4.86
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	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	7.07 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.51 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.45 kW	3.25 kW

COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.00 kW	6.00 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.07 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.00 kW	
SEER	5.43	
Pdc Tj = 35°C	6.00 kW	
EER Tj = 35°C	3.13	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	4.42 kW	
EER Tj = 30°C	4.35	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	2.84 kW	
EER Tj = 25°C	6.52	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.26 kW	
EER Tj = 20°C	8.73	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	386 kWh	

## Model WH-SDC0309K3E5 / WH-UDZ09KE5

Model name	WH-SDC0309K3E5 / WH-UDZ09KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.72	4.86
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	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	7.07 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.51 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.45 kW	3.25 kW

COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.00 kW	6.00 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.07 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	

## Model WH-SDC0309K6E5 / WH-UDZ09KE5

Model name	WH-SDC0309K6E5 / WH-UDZ09KE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.90 kW
El input	1.98 kW	3.04 kW
COP	4.55	2.93

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.01 kW	
Cooling capacity	8.20	
EER	2.72	

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	175 %	133 %
Prated	8.00 kW	8.00 kW
SCOP	4.44	3.41
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C



Pdh Tj = -7°C	7.05 kW	7.08 kW
COP Tj = -7°C	2.81	2.34
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	4.26 kW	4.30 kW
COP Tj = +2°C	3.89	3.16
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.77 kW	2.60 kW
COP Tj = +7°C	7.16	4.54
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.04 kW	3.15 kW
COP Tj = 12°C	8.74	6.61
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	7.08 kW
COP Tj = Tbiv	2.78	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	7.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.92 kW
Annual energy consumption Qhe	3720 kWh	4851 kWh

## EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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	4.17 kW	3.64 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.54 kW	2.25 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	2.96 kW	2.81 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.33 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.900	0.910
Pdh Tj = Tbiv	5.71 kW	4.89 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.72 kW	3.74 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.28 kW	2.26 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.72	4.86
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

## EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	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	7.07 kW	6.10 kW
COP Tj = +2°C	2.80	2.14
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.51 kW	3.80 kW
COP Tj = +7°C	5.37	3.51
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	3.45 kW	3.25 kW

COP Tj = 12°C	7.77	5.80
Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.00 kW	6.00 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.07 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	46 W	46 W
PSB	10 W	10 W
PCK	18 W	18 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

## EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	
SEER	5.27	
Pdc Tj = 35°C	7.00 kW	
EER Tj = 35°C	3.09	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	5.16 kW	
EER Tj = 30°C	4.16	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	6.08	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	1.47 kW	
EER Tj = 20°C	8.69	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	465 kWh	