

## Subtype Aquareia Split 3-5 kW STD (J 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	Aquareia Split 3-5 kW STD (J Series)
Registration number	011-1W0207
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	0.9 kg
Certification Date	08.01.2020
Testing basis	HP KEYMARK certification scheme rules V7

## Model WH-ADC0309J3E5 / WH-UD03JE5

Model name	WH-ADC0309J3E5 / WH-UD03JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

## Model WH-ADC0309J3E5 / WH-UD05JE5

Model name	WH-ADC0309J3E5 / WH-UD05JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C



Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	

Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh

## Model WH-ADC0309J3E5B / WH-UD03JE5

Model name	WH-ADC0309J3E5B / WH-UD03JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71
EN 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	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh



## Model WH-ADC0309J3E5AN / WH-UD03JE5

Model name	WH-ADC0309J3E5AN / WH-UD03JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

## Model WH-ADC0309J3E5UK / WH-UD03JE5

Model name	WH-ADC0309J3E5UK / WH-UD03JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

#### EN 16147 | Colder Climate

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

#### EN 16147 | Warmer Climate

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

### 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW



Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

## Model WH-ADC0309J3E5B / WH-UD05JE5

Model name	WH-ADC0309J3E5B / WH-UD05JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

#### EN 16147 | Colder Climate

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

#### EN 16147 | Warmer Climate

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

### 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	

Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh

## Model WH-ADC0309J3E5AN / WH-UD05JE5

Model name	WH-ADC0309J3E5AN / WH-UD05JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	

Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh

## Model WH-ADC0309J3E5UK / WH-UD05JE5

Model name	WH-ADC0309J3E5UK / WH-UD05JE5
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 $\eta_{DHW}$	132 %
COP	3.30
Heating up time	1:28 h:min
Standby power input	30.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	



Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh

## Model WH-SDC0305J3E5 / WH-UD03JE5

Model name	WH-SDC0305J3E5 / WH-UD03JE5
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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

## EN 14511-2 | Cooling

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

## EN 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
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
ηs	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80

Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL	2.40	1.70
COP Tj = -15°C (if TOL	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

#### 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
ηs	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00

Cdh Tj = +12 °C	0.940	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

#### EN 14825 | Cooling

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

## Model WH-SDC0305J3E5 / WH-UD05JE5

Model name	WH-SDC0305J3E5 / WH-UD05JE5
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	1.00 kW	1.84 kW
COP	5.00	2.72

## EN 14511-2 | Cooling

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

## EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
ηs	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80

Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL	2.40	1.70
COP Tj = -15°C (if TOL	2.29	1.76
Cdh Tj = -15 °C	0.980	0.970

#### 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
ηs	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.00 kW	3.90 kW
COP Tj = +2°C	3.15	1.80
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	5.61	3.55
Cdh Tj = +7 °C	0.940	0.960
Pdh Tj = 12°C	1.50 kW	1.40 kW
COP Tj = 12°C	8.35	6.00



Cdh Tj = +12 °C	0.860	0.890
Pdh Tj = Tbiv	4.00 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.00 kW	kW
SEER	6.20	
Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh

## Model WH-ADC0309J3E5C / WH-UD03JE5

Model name	WH-ADC0309J3E5C / WH-UD03JE5
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 $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

#### EN 16147 | Colder Climate

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

#### EN 16147 | Warmer Climate

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

### 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81
EN 14511-2   Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	0.91 kW	0.68 kW
Cooling capacity	3.20	3.20
EER	3.52	4.71
EN 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	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

## Model WH-ADC0309J3E5ANC / WH-UD03JE5

Model name	WH-ADC0309J3E5ANC / WH-UD03JE5
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 $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

## EN 16147 | Colder Climate

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

## EN 16147 | Warmer Climate

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

## 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	3.20 kW	3.20 kW
El input	0.60 kW	1.14 kW
COP	5.33	2.81

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	4.00 kW	3.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.50 kW	2.60 kW
COP Tj = -7°C	2.80	2.18
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.00 kW	1.60 kW
COP Tj = +2°C	5.14	3.42
Cdh Tj = +2 °C	0.930	0.940
Pdh Tj = +7°C	1.40 kW	1.10 kW
COP Tj = +7°C	6.80	4.43
Cdh Tj = +7 °C	0.870	0.900
Pdh Tj = 12°C	1.60 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.840	0.570
Pdh Tj = Tbiv	4.00 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
WTOL	55 °C	55 °C



Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	1631 kWh	1788 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.940	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	3.00 kW	kW
SEER	6.29	

Pdc Tj = 35°C	3.00 kW	kW
EER Tj = 35°C	3.95	
Pdc Tj = 30°C	2.21 kW	kW
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.42 kW	kW
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.63 kW	kW
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	167 kWh	kWh

## Model WH-ADC0309J3E5C / WH-UD05JE5

Model name	WH-ADC0309J3E5C / WH-UD05JE5
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 $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

#### EN 16147 | Colder Climate

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

#### EN 16147 | Warmer Climate

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

### 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	

Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh



## Model WH-ADC0309J3E5ANC / WH-UD05JE5

Model name	WH-ADC0309J3E5ANC / WH-UD05JE5
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 $\eta_{DHW}$	129 %
COP	3.23
Heating up time	1:32 h:min
Standby power input	31.0 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	239 l

#### EN 16147 | Colder Climate

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

#### EN 16147 | Warmer Climate

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

### 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	1.00 kW	1.84 kW
COP	5.00	2.72

#### EN 14511-2 | Cooling

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

#### EN 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
$\eta_s$	200 %	136 %
Prated	5.00 kW	4.00 kW
SCOP	5.07	3.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.20 kW	3.40 kW
COP Tj = -7°C	2.66	1.93
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	2.50 kW	2.10 kW
COP Tj = +2°C	5.15	3.48
Cdh Tj = +2 °C	0.950	0.960
Pdh Tj = +7°C	1.70 kW	1.40 kW
COP Tj = +7°C	6.95	4.60
Cdh Tj = +7 °C	0.890	0.910
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.45	6.90
Cdh Tj = +12 °C	0.850	0.880
Pdh Tj = Tbiv	4.70 kW	3.80 kW
COP Tj = Tbiv	2.50	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.55
WTOL	55 °C	55 °C

Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.20 kW
Annual energy consumption Qhe	2038 kWh	2385 kWh

#### 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
$\eta_s$	157 %	110 %
Prated	3.00 kW	2.00 kW
SCOP	4.00	2.83
Tbiv	-20 °C	-20 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	1.80 kW	1.20 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.80 kW	1.40 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.20 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.860	0.890
Pdh Tj = 12°C	1.60 kW	1.50 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.850	0.870
Pdh Tj = Tbiv	2.80 kW	1.80 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	2.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.00 kW

Annual energy consumption Q <sub>he</sub>	1848 kWh	1740 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	2.40	1.70
COP T <sub>j</sub> = -15°C (if TOL	2.29	1.76
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.980	0.970

#### 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>	245 %	165 %
Prated	4.00 kW	4.00 kW
SCOP	6.20	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	4.00 kW	3.90 kW
COP T <sub>j</sub> = +2°C	3.15	1.80
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.60 kW	2.50 kW
COP T <sub>j</sub> = +7°C	5.61	3.55
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.940	0.960
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.50 kW	1.40 kW
COP T <sub>j</sub> = 12°C	8.35	6.00
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.860	0.890
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.00 kW	3.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.15	1.80
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>	4.00 kW	3.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.15	1.80
WTOL	55 °C	55 °C
P <sub>off</sub>	2 W	2 W
PTO	26 W	26 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Q <sub>he</sub>	862 kWh	1274 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.00 kW	kW
SEER	6.20	

Pdc Tj = 35°C	4.00 kW	kW
EER Tj = 35°C	3.47	
Pdc Tj = 30°C	2.95 kW	kW
EER Tj = 30°C	5.12	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	1.89 kW	kW
EER Tj = 25°C	7.31	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	0.84 kW	kW
EER Tj = 20°C	9.26	
Cdc Tj = 20 °C	0.9	
Poff	5 W	W
PTO	0 W	W
PSB	5 W	W
PCK	0 W	W
Annual energy consumption Qce	226 kWh	kWh