

Subtype Aquarea Split 3 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	Aquarea Split 3 kW STD (K Series)
Registration number	011-1W0604
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	0.9 kg
Certification Date	28.04.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 11

**Model WH-ADC0309K3E5 / WH-UDZ03KE5**

Model name	WH-ADC0309K3E5 / WH-UDZ03KE5
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 ηDHW	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 ηDHW	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 ηDHW	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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = + 2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = + 7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	6.29
Pdc Tj = 35°C	3.00 kW	
EER Tj = 35°C	3.95	
Cdc Tj = 35 °C	0.900	
Pdc Tj = 30°C	2.21 kW	
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.900	
Pdc Tj = 25°C	1.42 kW	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.900	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.900	
Poff	5 W	
PTO	0 W	
PSB	5 W	
PCK	0 W	
Annual energy consumption Qce	167 kWh	

**Model WH-ADC0309K3E5AN / WH-UDZ03KE5**

Model name	WH-ADC0309K3E5AN / WH-UDZ03KE5
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 ηDHW	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 ηDHW	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 ηDHW	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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = + 2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = + 7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	
Pdc Tj = 35°C	6.29	
EER Tj = 35°C	3.00 kW	
Cdc Tj = 35 °C	3.95	
Pdc Tj = 30°C	0.900	
EER Tj = 30°C	2.21 kW	
Cdc Tj = 30 °C	5.37	
Pdc Tj = 25°C	0.900	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	1.42 kW	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	0.900	
Cdc Tj = 20 °C	8.93	
Poff	0 W	
PTO	5 W	
PSB	0 W	
PCK	5 W	
Annual energy consumption Qce	167 kWh	

**Model WH-ADC0309K3E5B / WH-UDZ03KE5**

Model name	WH-ADC0309K3E5B / WH-UDZ03KE5
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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	
Pdc Tj = 35°C	6.29	
EER Tj = 35°C	3.00 kW	
Cdc Tj = 35 °C	3.95	
Pdc Tj = 30°C	0.900	
EER Tj = 30°C	2.21 kW	
Cdc Tj = 30 °C	5.37	
Pdc Tj = 25°C	0.900	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	1.42 kW	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	0.900	
Cdc Tj = 20 °C	8.93	
Poff	0 W	
PTO	5 W	
PSB	0 W	
PCK	5 W	
Annual energy consumption Qce	167 kWh	

**Model WH-ADC0309K3E5UK/ WH-UDZ03KE5**

Model name	WH-ADC0309K3E5UK/ WH-UDZ03KE5
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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = + 2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = + 7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	
Pdc Tj = 35°C	6.29	
EER Tj = 35°C	3.00 kW	
Cdc Tj = 35 °C	3.95	
Pdc Tj = 30°C	0.900	
EER Tj = 30°C	2.21 kW	
Cdc Tj = 30 °C	5.37	
Pdc Tj = 25°C	0.900	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	1.42 kW	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	0.900	
Cdc Tj = 20 °C	8.93	
Poff	0 W	
PTO	5 W	
PSB	0 W	
PCK	5 W	
Annual energy consumption Qce	167 kWh	

**Model WH-ADC0309K6E5 / WH-UDZ03KE5**

Model name	WH-ADC0309K6E5 / WH-UDZ03KE5
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 ηDHW	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 ηDHW	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 ηDHW	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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	6.29
Pdc Tj = 35°C	3.00 kW	
EER Tj = 35°C	3.95	
Cdc Tj = 35 °C	0.900	
Pdc Tj = 30°C	2.21 kW	
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.900	
Pdc Tj = 25°C	1.42 kW	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.900	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.900	
Poff	5 W	
PTO	0 W	
PSB	5 W	
PCK	0 W	
Annual energy consumption Qce	167 kWh	

**Model WH-ADC0309K6E5AN / WH-UDZ03KE5**

Model name	WH-ADC0309K6E5AN / WH-UDZ03KE5
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 ηDHW	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 ηDHW	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 ηDHW	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 %
P <sub>rated</sub>	4.00 kW	3.00 kW
SCOP	5.07	3.47
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	2.60 kW
COP T <sub>j</sub> = -7°C	2.80	2.18
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.00 kW	1.60 kW
COP T <sub>j</sub> = +2°C	5.14	3.42
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	0.930	0.940
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.40 kW	1.10 kW
COP T <sub>j</sub> = +7°C	6.80	4.43
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.55 kW	1.40 kW
COP T <sub>j</sub> = 12°C	9.50	6.97
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.60	1.66
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	3.95 kW	2.90 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.60	1.66

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW
COP Tj = +2°C	5.17	3.80
Cdh Tj = + 2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = + 7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL)	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW

Annual energy consumption Qhe	862 kWh	1274 kWh
<b>EN 14825   Cooling</b>		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	3.00 kW	
Pdc Tj = 35°C	6.29	
EER Tj = 35°C	3.00 kW	
Cdc Tj = 35 °C	3.95	
Pdc Tj = 30°C	0.900	
EER Tj = 30°C	2.21 kW	
Cdc Tj = 30 °C	5.37	
Pdc Tj = 25°C	0.900	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	1.42 kW	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	0.900	
Cdc Tj = 20 °C	8.93	
Poff	0 W	
PTO	5 W	
PSB	0 W	
PCK	5 W	
Annual energy consumption Qce	167 kWh	

**Model WH-SDC0309K3E5 / WH-UDZ03KE5**

Model name	WH-SDC0309K3E5 / WH-UDZ03KE5
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	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	
EER Tj = 35°C	3.95	
Cdc Tj = 35 °C	0.900	
Pdc Tj = 30°C	2.21 kW	
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.900	
Pdc Tj = 25°C	1.42 kW	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.900	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.900	
Poff	5 W	
PTO	0 W	
PSB	5 W	
PCK	0 W	
Annual energy consumption Qce	167 kWh	

**Model WH-SDC0309K6E5 / WH-UDZ03KE5**

Model name	WH-SDC0309K6E5 / WH-UDZ03KE5
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	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.40 kW
COP Tj = 12°C	9.50	6.97
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	2.90 kW
COP Tj = Tbiv	2.60	1.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.66
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 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	1.21 kW
COP Tj = -7°C	3.26	2.16
Cdh Tj = -7 °C	0.950	0.950
Pdh Tj = +2°C	1.75 kW	1.41 kW

COP Tj = +2°C	5.17	3.80
Cdh Tj = +2 °C	0.920	0.930
Pdh Tj = +7°C	1.30 kW	1.19 kW
COP Tj = +7°C	7.00	5.05
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.55 kW	1.51 kW
COP Tj = 12°C	9.00	7.60
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	2.84 kW	1.84 kW
COP Tj = Tbiv	1.80	1.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.00 kW	1.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.81	1.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.04 kW
Annual energy consumption Qhe	1848 kWh	1740 kWh
Pdh Tj = -15°C (if TOL	2.40	1.66
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	224 %	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	3.95 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	2.52 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	0.900	0.900
Pdh Tj = Tbiv	3.95 kW	3.90 kW
COP Tj = Tbiv	3.15	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.95 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.00 kW
Annual energy consumption Qhe	862 kWh	1274 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.00 kW	
SEER	6.29	
Pdc Tj = 35°C	3.00 kW	
EER Tj = 35°C	3.95	
Cdc Tj = 35 °C	0.900	
Pdc Tj = 30°C	2.21 kW	
EER Tj = 30°C	5.37	
Cdc Tj = 30 °C	0.900	
Pdc Tj = 25°C	1.42 kW	
EER Tj = 25°C	7.44	
Cdc Tj = 25 °C	0.900	
Pdc Tj = 20°C	0.63 kW	
EER Tj = 20°C	8.93	
Cdc Tj = 20 °C	0.900	
Poff	5 W	
PTO	0 W	
PSB	5 W	
PCK	0 W	
Annual energy consumption Qce	167 kWh	