

Subtype Aquarena Split 9 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	Aquarena Split 9 kW STD (J Series)
Registration number	011-1W0209
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.27 kg
Certification Date	08.01.2020
Testing basis	HP KEYMARK certification scheme rules V7

Model WH-ADC0309J3E5 / WH-UD09JE5

Model name	WH-ADC0309J3E5 / WH-UD09JE5
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5B / WH-UD09JE5

Model name	WH-ADC0309J3E5B / WH-UD09JE5
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5AN / WH-UD09JE5

Model name	WH-ADC0309J3E5AN / WH-UD09JE5
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5UK / WH-UD09JE5

Model name	WH-ADC0309J3E5UK / WH-UD09JE5
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-SDC0709J3E5 / WH-UD09JE5

Model name	WH-SDC0709J3E5 / WH-UD09JE5
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

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

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Qhe	2949 kWh	4354 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.70	4.90
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

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

Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	kW
SEER	5.08	
Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5 / WH-UD09JE5-1

Model name	WH-ADC0309J3E5 / WH-UD09JE5-1
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5B / WH-UD09JE5-1

Model name	WH-ADC0309J3E5B / WH-UD09JE5-1
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5AN / WH-UD09JE5-1

Model name	WH-ADC0309J3E5AN / WH-UD09JE5-1
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5UK / WH-UD09JE5-1

Model name	WH-ADC0309J3E5UK / WH-UD09JE5-1
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 η_{DHW}	120 %
COP	3.00
Heating up time	1:22 h:min
Standby power input	31.0 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-SDC0709J3E5 / WH-UD09JE5-1

Model name	WH-SDC0709J3E5 / WH-UD09JE5-1
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

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

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.80 kW
Annual energy consumption Qhe	2949 kWh	4354 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75

Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	4132 kWh	4967 kWh
Pdh Tj = -15°C (if TOL	5.70	4.90
COP Tj = -15°C (if TOL	2.44	1.72
Cdh Tj = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

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

Cdh Tj = +12 °C	0.900	0.920
Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	2.80	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.14
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.00 kW	kW
SEER	5.08	
Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5C / WH-UD09JE5-1

Model name	WH-ADC0309J3E5C / WH-UD09JE5-1
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 η_{DHW}	116 %
COP	2.90
Heating up time	1:01 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

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

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh

Model WH-ADC0309J3E5ANC / WH-UD09JE5-1

Model name	WH-ADC0309J3E5ANC / WH-UD09JE5-1
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 η_{DHW}	116 %
COP	2.90
Heating up time	1:01 h:min
Standby power input	39.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	232 l

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.00 kW	8.95 kW
El input	2.01 kW	3.22 kW
COP	4.48	2.78

EN 14511-2 | Cooling

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

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130 %
Prated	7.00 kW	7.00 kW
SCOP	4.90	3.32
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	6.20 kW
COP Tj = -7°C	2.80	1.86
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.80 kW	3.80 kW
COP Tj = +2°C	5.03	3.33
Cdh Tj = +2 °C	0.940	0.960
Pdh Tj = +7°C	3.00 kW	2.70 kW
COP Tj = +7°C	6.56	4.52
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.47	6.26
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	7.00 kW	6.20 kW
COP Tj = Tbiv	2.60	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	6.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.70
WTOL	55 °C	55 °C

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

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	164 %	116 %
Prated	7.00 kW	6.00 kW
SCOP	4.18	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.20 kW	3.60 kW
COP Tj = -7°C	3.41	2.41
Cdh Tj = -7 °C	0.960	0.970
Pdh Tj = +2°C	2.50 kW	2.20 kW
COP Tj = +2°C	5.39	3.75
Cdh Tj = +2 °C	0.900	0.920
Pdh Tj = +7°C	3.00 kW	2.80 kW
COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.920
Pdh Tj = 12°C	3.40 kW	3.30 kW
COP Tj = 12°C	8.24	6.67
Cdh Tj = +12 °C	0.890	0.910
Pdh Tj = Tbiv	5.70 kW	4.90 kW
COP Tj = Tbiv	2.44	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.82	1.08
WTOL	55 °C	55 °C
Poff	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW

Annual energy consumption Q _{he}	4132 kWh	4967 kWh
P _{dh} T _j = -15°C (if TOL	5.70	4.90
COP T _j = -15°C (if TOL	2.44	1.72
C _{dh} T _j = -15 °C	0.980	0.980

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	227 %	160 %
Prated	7.00 kW	6.00 kW
SCOP	5.75	4.07
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	7.10 kW	6.10 kW
COP T _j = +2°C	2.80	2.14
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.50 kW	3.80 kW
COP T _j = +7°C	5.37	3.51
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.40 kW	3.30 kW
COP T _j = 12°C	7.77	5.80
C _{dh} T _j = +12 °C	0.900	0.920
P _{dh} T _j = T _{biv}	7.10 kW	6.10 kW
COP T _j = T _{biv}	2.80	2.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.10 kW	6.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.80	2.14
WTOL	55 °C	55 °C
P _{off}	2 W	2 W
PTO	44 W	44 W
PSB	10 W	10 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1627 kWh	1971 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.00 kW	kW
SEER	5.08	

Pdc Tj = 35°C	7.00 kW	kW
EER Tj = 35°C	2.95	
Pdc Tj = 30°C	5.16 kW	kW
EER Tj = 30°C	4.00	
Cdc Tj = 30 °C	0.9	
Pdc Tj = 25°C	3.32 kW	kW
EER Tj = 25°C	5.91	
Cdc Tj = 25 °C	0.9	
Pdc Tj = 20°C	1.47 kW	kW
EER Tj = 20°C	7.54	
Cdc Tj = 20 °C	0.9	
Poff	8 W	W
PTO	0 W	W
PSB	8 W	W
PCK	0 W	W
Annual energy consumption Qce	482 kWh	kWh