

Subtype Aquarea Split 16 kW T-CAP (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 16 kW T-CAP (K series)
Registration number	011-1W0780
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.83 kg
Certification Date	15.04.2024
Testing basis	HP KEYMARK certification scheme rules V13

Model WH-ADC16K9E8 / WH-UXZ16KE8

Model name	WH-ADC16K9E8 / WH-UXZ16KE8
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	3x400V 50Hz
Off-peak product	n/a

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

Declared load profile	L
Efficiency ηDHW	109 %
COP	2.73
Heating up time	0:41 h:min
Standby power input	43.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency ηDHW	86 %
COP	2.14
Heating up time	0:41 h:min
Standby power input	59.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency ηDHW	130 %
COP	3.24
Heating up time	0:41 h:min
Standby power input	37.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 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	16.00 kW	16.00 kW
El input	3.65 kW	5.88 kW
COP	4.38	2.72
EN 14511-2 Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	5.08 kW	
Cooling capacity	13.40	
EER	2.64	
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	176 %	129 %
Prated	13.00 kW	16.00 kW
SCOP	4.46	3.31
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	14.10 kW
COP Tj = -7°C	2.89	2.02
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.00 kW	8.60 kW
COP Tj = +2°C	4.29	3.15
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.10 kW	8.00 kW
COP Tj = +7°C	5.83	4.50
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	9.00 kW	9.00 kW
COP Tj = 12°C	7.13	5.82
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.00 kW	16.00 kW
COP Tj = Tbiv	2.66	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	16.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.82

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6018 kWh	9984 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	150 %	125 %
Prated	19.00 kW	18.00 kW
SCOP	3.83	3.20
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.50 kW	10.89 kW
COP Tj = -7°C	2.98	2.59
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.00 kW	6.63 kW
COP Tj = +2°C	4.71	3.87
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.27 kW	7.70 kW
COP Tj = +7°C	5.97	5.31
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	9.34 kW	8.86 kW
COP Tj = 12°C	7.58	7.31
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.50 kW	14.68 kW
COP Tj = Tbiv	2.39	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.09 kW	11.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W

PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.91 kW	6.57 kW
Annual energy consumption Qhe	12233 kWh	13870 kWh
Pdh Tj = -15°C (if TOL)	15.50	14.68
COP Tj = -15°C (if TOL)	2.39	1.90
Cdh Tj = -15 °C	1.000	1.000

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	232 %	160 %
Prated	16.00 kW	16.00 kW
SCOP	5.88	4.09
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	16.00 kW	16.00 kW
COP Tj = +2°C	3.10	2.07
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	10.31 kW	10.54 kW
COP Tj = +7°C	5.56	3.60
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	8.80 kW	8.92 kW
COP Tj = 12°C	6.89	5.14
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	16.00 kW	16.00 kW
COP Tj = Tbiv	3.10	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.00 kW	16.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	3634 kWh	5230 kWh
EN 14825 Cooling		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	13.00 kW	4.53
Pdc Tj = 35°C	13.00 kW	
EER Tj = 35°C	2.70	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	10.00 kW	
EER Tj = 30°C	3.95	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	7.75 kW	
EER Tj = 25°C	5.10	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	8.15 kW	
EER Tj = 20°C	5.85	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	1004 kWh	

Model WH-ADC16K9E8AN / WH-UXZ16KE8

Model name	WH-ADC16K9E8AN / WH-UXZ16KE8
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	3x400V 50Hz
Off-peak product	n/a

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

Declared load profile	L
Efficiency η_{DHW}	109 %
COP	2.73
Heating up time	0:41 h:min
Standby power input	43.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	86 %
COP	2.14
Heating up time	0:41 h:min
Standby power input	59.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	130 %
COP	3.24
Heating up time	0:41 h:min
Standby power input	37.0 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	244 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	16.00 kW	16.00 kW
El input	3.65 kW	5.88 kW
COP	4.38	2.72

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.08 kW	
Cooling capacity	13.40	
EER	2.64	

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	129 %
P _{rated}	13.00 kW	16.00 kW
SCOP	4.46	3.31
T _{biv}	-10 °C	-10 °C
T _{OL}	-10 °C	-10 °C
P _d h T _j = -7°C	11.50 kW	14.10 kW
COP T _j = -7°C	2.89	2.02
Cd _h T _j = -7 °C	1.000	1.000
P _d h T _j = +2°C	7.00 kW	8.60 kW
COP T _j = +2°C	4.29	3.15
Cd _h T _j = +2 °C	0.990	0.990
P _d h T _j = +7°C	8.10 kW	8.00 kW
COP T _j = +7°C	5.83	4.50
Cd _h T _j = +7 °C	0.990	0.990
P _d h T _j = 12°C	9.00 kW	9.00 kW
COP T _j = 12°C	7.13	5.82
Cd _h T _j = +12 °C	0.990	0.990
P _d h T _j = T _{biv}	13.00 kW	16.00 kW
COP T _j = T _{biv}	2.66	1.82
P _d h T _j = T _{OL} or P _d h T _j = T _{designh} if T _{OL} < T _{designh}	13.00 kW	16.00 kW
COP T _j = T _{OL} or COP T _j = T _{designh} if T _{OL} < T _{designh}	2.66	1.82

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6018 kWh	9984 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	150 %	125 %
Prated	19.00 kW	18.00 kW
SCOP	3.83	3.20
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.50 kW	10.89 kW
COP Tj = -7°C	2.98	2.59
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.00 kW	6.63 kW
COP Tj = +2°C	4.71	3.87
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.27 kW	7.70 kW
COP Tj = +7°C	5.97	5.31
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	9.34 kW	8.86 kW
COP Tj = 12°C	7.58	7.31
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.50 kW	14.68 kW
COP Tj = Tbiv	2.39	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.09 kW	11.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W

PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.91 kW	6.57 kW
Annual energy consumption Qhe	12233 kWh	13870 kWh
Pdh Tj = -15°C (if TOL)	15.50	14.68
COP Tj = -15°C (if TOL)	2.39	1.90
Cdh Tj = -15 °C	1.000	1.000

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	232 %	160 %
Prated	16.00 kW	16.00 kW
SCOP	5.88	4.09
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	16.00 kW	16.00 kW
COP Tj = +2°C	3.10	2.07
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	10.31 kW	10.54 kW
COP Tj = +7°C	5.56	3.60
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	8.80 kW	8.92 kW
COP Tj = 12°C	6.89	5.14
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	16.00 kW	16.00 kW
COP Tj = Tbiv	3.10	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.00 kW	16.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	3634 kWh	5230 kWh
EN 14825 Cooling		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	13.00 kW	4.53
Pdc Tj = 35°C	13.00 kW	
EER Tj = 35°C	2.70	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	10.00 kW	
EER Tj = 30°C	3.95	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	7.75 kW	
EER Tj = 25°C	5.10	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	8.15 kW	
EER Tj = 20°C	5.85	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	1004 kWh	

Model WH-SXC16K9E8 / WH-UXZ16KE8

Model name	WH-SXC16K9E8 / WH-UXZ16KE8
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	3x400V 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	16.00 kW	16.00 kW
El input	3.65 kW	5.88 kW
COP	4.38	2.72

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.08 kW	
Cooling capacity	13.40	
EER	2.64	

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	176 %	129 %
Prated	13.00 kW	16.00 kW
SCOP	4.46	3.31
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	14.10 kW
COP Tj = -7°C	2.89	2.02
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.00 kW	8.60 kW
COP Tj = +2°C	4.29	3.15
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.10 kW	8.00 kW
COP Tj = +7°C	5.83	4.50
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	9.00 kW	9.00 kW
COP Tj = 12°C	7.13	5.82
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	13.00 kW	16.00 kW
COP Tj = Tbiv	2.66	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.00 kW	16.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6018 kWh	9984 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	150 %	125 %
Prated	19.00 kW	18.00 kW
SCOP	3.83	3.20
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.50 kW	10.89 kW
COP Tj = -7°C	2.98	2.59
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.00 kW	6.63 kW

COP Tj = +2°C	4.71	3.87
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.27 kW	7.70 kW
COP Tj = +7°C	5.97	5.31
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	9.34 kW	8.86 kW
COP Tj = 12°C	7.58	7.31
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	15.50 kW	14.68 kW
COP Tj = Tbiv	2.39	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.09 kW	11.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.91 kW	6.57 kW
Annual energy consumption Qhe	12233 kWh	13870 kWh
Pdh Tj = -15°C (if TOL	15.50	14.68
COP Tj = -15°C (if TOL	2.39	1.90
Cdh Tj = -15 °C	1.000	1.000

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	232 %	160 %
Prated	16.00 kW	16.00 kW
SCOP	5.88	4.09
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	16.00 kW	16.00 kW
COP Tj = +2°C	3.10	2.07
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	10.31 kW	10.54 kW
COP Tj = +7°C	5.56	3.60
Cdh Tj = +7 °C	0.990	0.990

Pdh Tj = 12°C	8.80 kW	8.92 kW
COP Tj = 12°C	6.89	5.14
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	16.00 kW	16.00 kW
COP Tj = Tbiv	3.10	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.00 kW	16.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	2.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	12 W	12 W
PTO	14 W	14 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3634 kWh	5230 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	13.00 kW	
SEER	4.53	
Pdc Tj = 35°C	13.00 kW	
EER Tj = 35°C	2.70	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	10.00 kW	
EER Tj = 30°C	3.95	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	7.75 kW	
EER Tj = 25°C	5.10	
Cdc Tj = 25 °C	1.000	
Pdc Tj = 20°C	8.15 kW	
EER Tj = 20°C	5.85	
Cdc Tj = 20 °C	1.000	
Poff	12 W	
PTO	0 W	
PSB	12 W	
PCK	0 W	
Annual energy consumption Qce	1004 kWh	