

3.4 WH-ADC0309K3E5 WH-UDZ09KE5

Item		Unit	Outdoor Unit		
Performance Test Condition		EN 14511			
		EN 14825			
Cooling Capacity	Condition (Ambient/Water)	A35W7			
	kW	8.20			
	BTU/h	28000			
	kcal/h	7050			
Cooling EER	W/W	2.72			
	kcal/hW	2.33			
Heating Capacity	Condition (Ambient/Water)	A7W35	A2W35		
	kW	9.00	7.00		
	BTU/h	30700	23900		
	kcal/h	7740	6020		
Heating COP	W/W	4.55	3.40		
	kcal/hW	3.91	2.92		
Heating Erp	Low Temperature Application (W35)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	7.0	8.0	7.0
	Tbivalent/TOL	°C	2 / 2	-10 / -10	-15 / -22
	SCOP/ns	(W/W)%	5.75 / 227	4.44 / 175	4.18 / 164
	Annual Consumption	kWh	1627	3720	4132
	Class		A+++	A+++	A++
	Medium Temperature Application (W55)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	6.0	8.0	6.0
	Tbivalent/TOL	°C	2 / 2	-7 / -10	-15 / -22
	SCOP/ns	(W/W)%	4.07 / 160	3.41 / 133	2.98 / 116
	Annual Consumption	kWh	1971	4851	4967
	Class		A+++	A++	A+
	DHW		Warmer	Average	Colder
	Application	Climate			
	COP/nwh	(W/W)%	4.00 / 160	3.50 / 140	2.80 / 112
	AEC	kWh	630	720	900
Noise Level	Condition (Ambient/Water)	A35W7	A7W35	A2W35	
	dB (A)	Cooling: 51***	Heating: 51***	Heating: 51***	
	Power Level dB	Cooling: 65***	Heating: 63*** Heating: 56****	Heating: 63*** Heating: 56****	
Air Flow	m ³ /min (ft ³ /min)	Cooling: 55.0 (1942) Heating: 52.7 (1860)			
Refrigeration Control Device		Expansion Valve			
Refrigeration Oil	cm ³	FW50S (600)			
Refrigerant	kg (oz)	R32, 1.30 (45.9) (Pre-charged) R32, 2.30 (81.2) (Maximum)			
F-GAS	GWP	675			
	CO ₂ eq (ton) (Precharged/Maximum)	0.878 / 1.553			
Dimension	Height	mm (inch)	795 (31-5/16)		
	Width	mm (inch)	875 (34-15/32)		
	Depth	mm (inch)	380 (14-31/32)		
Net Weight	kg (lbs)	55 (121)			

Item		Unit	Outdoor Unit		
Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)		
	Gas	mm (inch)	15.88 (5/8)		
Standard Length		m (ft)	7 (23.0)		
Pipe Length Range		m (ft)	3 (9.8) ~ 50 (164.0)		
I/D & O/D Height Difference		m (ft)	30 (98.4)		
Additional Gas Amount		g/m (oz/ft)	25 (0.3)		
Refrigeration Charge Less		m (ft)	10 (32.8)		
Compressor	Type		Hermetic Motor		
	Motor Type		Brushless (4-poles)		
	Rated Output	kW	1.50		
Fan	Type		Propeller Fan		
	Material		PP		
	Motor Type		DC (8-poles)		
	Input Power	W	-		
	Output Power	W	60		
	Fan Speed	rpm	Cooling: 700 Heating: 550		
Heat Exchanger	Fin material		Aluminium (Pre Coat)		
	Fin Type		Corrugated Fin		
	Row × Stage × FPI		2 × 36 × 19		
	Size (W × H × L)	mm	36.38 × 756.0 × 868.0:897.0		
Power Source (Phase, Voltage, Cycle)	Ø		Single		
	V		230		
	Hz		50		
Input Power	Condition (Ambient/Water)		A35W7	A7W35	A2W35
	kW		Cooling: 3.02	Heating: 1.98	Heating: 2.06
Maximum Input Power For Heatpump System		kW	3.58		
Power Supply 1 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			1Ø / 15.9 / 3.58k		
Power Supply 2 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			1Ø / 13.0 / 3.00k		
Power Supply 3 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			- / - / -		
Starting Current		A	8.9		
Running Current	Condition (Ambient/Water)		A35W7	A7W35	A2W35
	A		Cooling: 13.4	Heating: 8.9	Heating: 9.1
Maximum Current For Heatpump System		A	15.9		
Power Factor Power factor means total figure of compressor and outdoor fan motor.	Condition (Ambient/Water)		A35W7	A7W35	A2W35
	%		Cooling: 98	Heating: 97	Heating: 98
Power Cord	Number of core		-		
	Length	m (ft)	-		
Thermostat			Electronic Control		
Protection Device			Electronic Control		

Item		Unit	Indoor Unit		
Performance Test Condition		EN 14511			
		EN 14825			
Operation Range	Outdoor Ambient	°C (min./max.)	Cooling: 10 / 43 Heating (Tank): -25 / 35 Heating (Circuit): -25 / 35		
	Water Outlet	°C (min./max.)	Cooling: 5 / 20 Heating (Tank): - / 65 ³ , Heating (Circuit): 20 / 55 (Below Ambient -15 °C) ^{**} Heating (Circuit): 20 / 60 (Above Ambient -10 °C) ^{**}		
Internal Pressure Differential		kPa	Cooling: 24.0 Heating: 27.0		
Noise Level		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		dB (A)	Cooling: 28 ^{***}	Heating: 28 ^{***}	Heating: 28 ^{***}
		Power Level dB	Cooling: 41 ^{***}	Heating: 41 ^{***}	Heating: 41 ^{***}
Dimension	Depth	mm (inch)	602 (23-45/64)		
	Width	mm (inch)	599 (23-37/64)		
	Height	mm (inch)	1642 (64-41/64)		
Net Weight		kg (lbs)	100 (221)		
Refrigerant Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)		
	Gas	mm (inch)	15.88 (5/8)		
Water Pipe Diameter	Room	mm (inch)	31 (1-1/4)		
	Shower	mm (inch)	19 (3/4)		
Water Drain Hose Inner Diameter		mm (inch)	12.00 (17/36)		
Pump	Motor Type		DC Motor		
	No. of Speed		7 (Software Selection)		
	Input Power	W	145		
Hot Water Coil	Type		Brazed Plate		
	No. of Plates		36		
	Size (W x H x L)	mm	68 × 333 × 121		
	Water Flow Rate	l/min (m ³ /h)	Cooling: 23.5 (1.4) Heating: 25.8 (1.5)		
Pressure Relief Valve Water Circuit		kPa	Open: 300, Close: 210 and below		
Flow Sensor	Type		Vortex (Piezoelectric sensor)		
	Measuring range	l/min	5 ~ 60		
Pressure Release Valve		kPa	Open: 800, Close: 640 and below		
Protection Device		A	Earth Leakage Circuit Breaker (30 ~ 40)		
Expansion Vessel	Volume	l	10		
	MWP	bar	3		
Capacity of Integrated Electric Heater / OLP TEMP		kW/°C	3.00 / 80		
Tank Volume (Spec / Nett)		L	200 / 185		
Max. Tank Water Set Temperature		°C	65		
Tank Coil Surface		m ²	1.8		
Maximum Working Pressure	Heat/Cool	Bar	3.0		
	Tank Circuit	Bar	10.0		
Operating Pressure	Tank Unit	Bar	3.5		
	Expansion Relief Valve	Bar	8.0		
Expansion Vessel Pre-charge Pressure (DHW Circuit)		Bar	3.5		
Pressure Reducing Valve Set Pressure (DHW Circuit)		Bar	3.5		

Item		Unit	Indoor Unit
Pressure Vessel	Material		En-1.4521
	Volume	L	185
	Design Pressure	Bar	10
Heat Exchanger	Material		EN-1.4521
	Diameter	mm	22
	Thickness	mm	0.8
	Surface Area	m ²	1.8
	Total Length	m	25
DHW Tank	Total Corrosion ion (Chloride + Sulphate + Nitric)	mg/L	< 150
	Conductivity @ Water Tank Water Temperature < 60°C	μS/cm	< 1250
	Conductivity @ Water Tank Water Temperature < 65°C	μS/cm	< 1200
	Saturation Index (LSI) @ 20°C		> -4.0 / < 0.4
	PH		6.5 - 8.5

Note:

- In case it is necessary to indicate the air flow volume in (l/s), the value in (m³/min.) shall be multiplied by 16.7 and rounded down the decimal point.
- If the EUROVENT Certified models can be operated under the “extra-low” temperature condition, -7°C DB and -8°C WB temperature with rated voltage 230V shall be used.
- Capacity is measured at outdoor temperature 7°C DB and 6°C WB with controlled water inlet 30°C and water outlet 35°C (EN 14511-2)
- Flowrate indicated are based on nominal capacity adjustment of leaving water temperature (LWT) 35°C and ΔT=5°C.
- EER and COP classification is at 230V only in accordance with EU directive 2003/32/EC.
- *³ Above 55°C, only possible with backup heater operation.
- *⁴ Between outdoor ambient -10°C and -15°C, the water outlet temperature gradually decreases from 60°C to 55°C.
- *** The sound pressure and sound power level is measured with distance 1.0m from the unit and height at 1.5m. (Test carry out for cooling at ambient 35°C DB and Water Out 7°C, heating at ambient 7°C DB / 6°C WB and water out 55°C)
- **** The sound power level is measured with accordance to EN12102 under conditions of the EN14825.
- It is recommended to follow DHW tank water quality limit for Panasonic Air to Water All in One according to Drinking Water Directive 98/83 EC