3. Specifications

3.1 WH-ADC0509L3E51 WH-WDG05LE5

Item		Unit	Outdoor Unit		
Performance Test Condition			EN 14511		
			EN 14825		
Cooling Capacity		Condition (Ambient/Water)	A35W7		
		kW	5.00		
		BTU/h	17100		
Cooling EER		W/W	3.23		
Heating Capacity		Condition (Ambient/Water)	A7W35	A2W35	
		kW	5.00	5.00	
		BTU/h	17100	17100	
Heating COP		W/W	5.05	3.52	
Heating Erp	Low Temperature Application (W35)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	5.0	5.0	6.0
	Tbivalent / TOL	°C	2 / 2	-10 / -10	-15 / -22
	SCOP / ns	(W/W) / %	6.00 / 237	5.06 / 200	4.25 / 167
	Annual Consumption	kWh	1113	2040	3483
	Class		A+++	A+++	A++
	Medium Temperature Application (W55)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	5.0	5.0	6.0
	Tbivalent / TOL	°C	2 / 2	-10 / -10	-15 / -22
	SCOP / ns	(W/W) / %	4.27 / 168	3.63 / 142	3.28 / 128
	Annual Consumption	kWh	1565	2849	4516
	Class		A+++	A++	A++
	DHW		Warmer	Average	Colder
	Application	Climate			
	COP / nwh	(W/W) / %	3.35 / 134	2.88 / 115	2.26 / 90
	AEC	kWh	384	447	569
Noise Level		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		dB (A)	Cooling: -	Heating: -	Heating: -
		Power Level dB	Cooling: 61***	Heating: 57*** Heating: 52***	Heating: 57*** Heating: 52***
Air Flow		m^3/min (ft^3/min)	Cooling: 55.0 (1942) Heating: 45.0 (1589)		
Refrigeration Control Device			Expansion Valve		
Refrigeration Oil		cm^3	PZ68S (1100)		
Refrigerant		kg (oz)	R290, 0.96 (33.9) (Pre-charged) (-) (Maximum)		
F-GAS	GWP		3		
	CO^2eq (ton) (Precharged / Maximum)		0.003 / -		
Dimension	Height	mm (inch)	996 (39-7/32)		
	Width	mm (inch)	980 (38-37/64)		
	Depth	mm (inch)	430 (16-59/64)		
Net Weight		kg (lbs)	98 (216)		

Item		Unit	Outdoor Unit		
Pipe Diameter (Inner)		mm	20		
Standard Length		m (ft)	5.0 (16.4)		
Maximum Pipe Length		m (ft)	30.0 (98.4)		
I/D & O/D Height Difference		m (ft)	10 (32.8)		
Water Pipe Connector	Indoor	inch	1		
	Outdoor		1		
Compressor	Type		Hermetic Motor Compressor (Rotary)		
	Motor Type		Synchronous Electric Motor (4-poles)		
	Rated Output	kW	1.70		
Fan	Type		Propeller Fan		
	Material		PP		
	Motor Type		DC (8-poles)		
	Input Power	kW	1.089 (Heating) / 1.705 (Cooling)		
	Output Power	W	120		
	Fan Speed	rpm	Cooling: 520 Heating: 440		
Heat Exchanger	Fin material		Aluminium (Blue Coat)		
	Fin Type		Corrugated Fin		
	Row × Stage × FPI		2 × 46 × 19		
	Size (W × H × L)	mm	36.38 × 966 × 880.6 : 908.6		
Hot Water Coil	Type		Brazed Plate		
	No. of Plates		26		
	Size (W x H x L)	mm	57.8 × 524 × 117		
	Water Flow Rate	l/min (m^3/h)	Cooling: 14.3 (0.9) Heating: 14.3 (0.9)		
Power Source (Phase, Voltage, Cycle)		Ø	Single		
		V	230		
		Hz	50		
Input Power		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		kW	Cooling: 1.55	Heating: 0.99	Heating: 1.42
Maximum Input Power For Heatpump System		kW	2.93		
Power Supply 1 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			1Ø / 13.0 / 2.93k		
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	6.9		
Running Current		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		A	Cooling: 6.9	Heating: 4.4	Heating: 6.3
Maximum Current For Heatpump System		A	13.0		
Power Factor Power factor means total figure of compressor and outdoor fan motor.		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		%	Cooling: 98	Heating: 98	Heating: 98
Power Cord	Number of core		-		
	Length	m (ft)	-		
Thermostat			Electronic Control		
Protection Device			Electronic Control		
Pressure Relief Valve Water Circuit		kPa	Open: 300, Close: 210 and below		

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 -20 °C) *4 Heating (Circuit): 20 / 75 (Above Ambient -10 °C) *4		
Internal Pressure Differential		kPa	Cooling: 18.0 Heating: 18.0		
Noise Level		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		dB (A)	Cooling: 31***	Heating: 31***	Heating: 31***
		Power Level dB	Cooling: 44***	Heating: 44***	Heating: 44***
Dimension	Depth	mm (inch)	602 (23-45/64)		
	Width	mm (inch)	599 (23-37/64)		
	Height	mm (inch)	1293 (50-7/8)		
Net Weight		kg (lbs)	79 (174)		
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		Brushless DC Motor (Sensorless vector control system)		
	No. of Speed		7 (Software Selection)		
	Input Power	W	145		
Flow Sensor	Type		Vortex (Piezoelectric sensor)		
	Measuring range	l/min	5 ~ 60		
Pressure Transducer (Range)		bar	0 ~ 4		
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 / 85		
Tank Volume (Spec / Nett)		L	127 / 120		
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		EN14511
	Volume	L	120
	Design Pressure	Bar	10
Heat Exchanger	Material		EN-1.4521
	Diameter	mm	22
	Thickness	mm	0.65
	Surface Area	m^2	1.3
	Total Length	m	18.5
DHW Tank	Total Corrosion ion (Chloride + Sulphate + Nitric)	mg/L	< 150
	Conductivity @ Water Tank Water Temperature < 60ºC	µS/cm	< 1250
	Conductivity @ Water Tank Water Temperature < 65ºC	µS/cm	< 1200
	Saturation Index (LSI) @ 20ºC		> -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 (m^3/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 occordance with EU directive 2003/32/EC.
- *** 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.
- *** The sound power level is measured with accordance to EN12102 under full load conditions. (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)
- *3 When outdoor ambient is under -10°C, only the backup heater operate above 55°C.
- *4 Between outdoor ambient -10°C and -20°C, the water outlet temperature gradually decreases from 75°C to 55°C.