3. Specifications

3.1 WH-SDC0309K3E5 WH-UDZ03KE5

Item			Unit	Outdoor Unit		
Performance Test Condition				EN 14511 / EN 14825		
Cooling Capacity			Condition (Ambient/Water)	A35W7		
			kW	3.20		
			BTU/h	10900		
			kcal/h	2750		
Cooling EER			W/W	3.52		
			kcal/hW	3.02		
Heating Capacity			Condition (Ambient/Water)	A7W35	A2W35	
			kW	3.20	3.20	
			BTU/h	10900	10900	
			kcal/h	2750	2750	
Heating COP			W/W	5.33	3.64	
			kcal/hW	4.58	3.13	
Heating ErP		Low Temperature Application (W35)		Warmer	Average	Colder
		Application	Climate			
		Pdesign	kW	4.0	4.0	3.0
		Tbivalent / TOL	°C	2 / 2	-10 / -10	-20 / -22
		SCOP / ns	(W/W) / %	6.20 / 245	5.07 / 200	4.00 / 157
		Annual Consumption	kWh	862	1631	1848
		Class		A+++	A+++	A++
		Medium Temperature Application (W55)		Warmer	Average	Colder
		Application	Climate			
		Pdesign	kW	4.0	3.0	2.0
		Tbivalent / TOL	°C	2 / 2	-10 / -10	-20 / -22
		SCOP / ns	(W/W) / %	4.20 / 165	3.47 / 136	2.83 / 110
		Annual Consumption	kWh	1274	1788	1740
		Class		A+++	A++	A+
Noise Level			Condition (Ambient/Water)	A35W7	A7W35	A2W35
			dB (A) ***	Cooling: 45	Heating: 44	Heating: 44
			Power Level dB ***	Cooling: 61	Heating: 60	Heating: 60
			dB ****	-	Heating: 55	Heating: 55
Air Flow			m^3/min (ft^3/min)	Cooling: 33.9 (1200) Heating: 28.9 (1020)		
Refrigeration Control Device				Expansion Valve		
Refrigeration Oil			cm^3	FW50S (450)		
Refrigerant (R32) Precharge / Maximum			kg (oz)	0.90 (31.8) / 1.20 (42.4)		
F-GAS	GWP			675		
	CO_2eq (ton) (Precharged / Maximum)			0.608 / 0.810		
Dimension		Height	mm (inch)	622 (24-1/2)		
		Width	mm (inch)	824 (32-15/32)		
		Depth	mm (inch)	298 (11-24/32)		
Net Weight			kg (lbs)	37 (82)		

Item		Unit	Outdoor Unit		
Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)		
	Gas	mm (inch)	12.70 (1/2)		
Standard Length		m (ft)	7 (23.0)		
Pipe Length Range		m (ft)	3 (9.8) ~ 25 (82.0)		
I/D & O/D Height Difference		m (ft)	20 (65.6)		
Additional Gas Amount		g/m (oz/ft)	20 (0.2)		
Refrigeration Charge Less		m (ft)	10 (32.8)		
Compressor	Type		Hermetic Motor		
	Motor Type		Brushless (6-poles)		
	Rated Output	kW	0.90		
Fan	Type		Propeller Fan		
	Material		PP		
	Motor Type		DC (8-poles)		
	Input Power	W	20W (Heating) / 23W (Cooling)		
	Output Power	W	40		
	Fan Speed	rpm	Cooling: 840 Heating: 720		
Heat Exchanger	Fin material		Aluminium (Pre Coat)		
	Fin Type		Corrugated Fin		
	Row × Stage × FPI		2 × 28 × 19		
	Size (W × H × L)	mm	36.4 × 588.0 × 827.7 : 856.3		
Power Source (Phase, Voltage, Cycle)		ø	Single		
		V	230		
		Hz	50		
Input Power		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		kW	Cooling: 0.91	Heating: 0.60	Heating: 0.88
Maximum Input Power For Heatpump System		kW	2.59		
Power Supply 1 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			1Ø / 12.0 / 2.59k		
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	2.9		
Running Current		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		A	Cooling: 4.3	Heating: 2.9	Heating: 4.2
Maximum Current For Heatpump System		A	12.0		
Power Factor Power factor means total figure of compressor and outdoor fan motor.		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		%	Cooling: 92	Heating: 90	Heating: 91
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	Cooling: 10 / 43 Heating: -20 / 35		
	Water Outlet	°C	Cooling: 5 / 20 Heating (Circuit): 20 / 55 (Below Ambient -15 °C) ** Heating (Circuit): 20 / 60 (Above Ambient -10 °C) **		
Internal Pressure Differential		kPa	Cooling: 6.0 Heating: 6.0		
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	Height	mm (inch)	892 (35-1/8)		
	Width	mm (inch)	500 (19-11/16)		
	Depth	mm (inch)	348 (13-23/32)		
Net Weight		kg (lbs)	40 (88)		
Refrigerant Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)		
	Gas	mm (inch)	12.70 (1/2)		
Water Pipe Diameter	Inlet	mm (inch)	31.75 (1-1/4)		
	Outlet	mm (inch)	31.75 (1-1/4)		
Water Drain Hose Inner Diameter		mm (inch)	12 (17/36)		
Pump	Motor Type		Brushless DC Motor		
	Input Power	W	145		
Hot Water Coil	Type		Brazed Plate		
	No. of Plates		36		
	Size (W × H × L)	mm	68 × 333 × 121		
	Water Flow Rate	l/min (m^3/h)	Cooling: 9.2 (0.6) Heating: 9.2 (0.6)		
Pressure Relief Valve Water Circuit		kPa	Open: 300, Close: 210 and below		
Flow Switch			Electronic Sensor		
Protection Device		A	Residual Current Circuit Breaker (30 ~ 40)		
Expansion Vessel	Volume	l	10		
	MWP	bar	3		
Capacity of Integrated Electric Heater		kW	3.00		

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.
- ** Between outdoor ambient -10°C and -15°C, the water outlet temperature gradually decreases from 60°C to 55°C.
- *** The sound pressure 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.