

### 3. Specifications

#### 3.1 WH-SDC09K3E8 WH-UDZ09KE8

Item		Unit	Outdoor Unit		
Performance Test Condition			EN 14511 / EN14825		
Cooling Capacity	Condition (Ambient/Water)		A35W7		
	kW		8.80		
	BTU/h		30000		
	kcal/h		7570		
Cooling EER	W/W		3.11		
	kcal/hW		2.67		
Heating Capacity	Condition (Ambient/Water)		A7W35	A2W35	
	kW		9.00	9.00	
	BTU/h		30700	30700	
	kcal/h		7740	7740	
Heating COP	W/W		4.90	3.63	
	kcal/hW		4.21	3.12	
Heating ErP	Low Temperature Application (W35)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	9.0	9.0	10.0
	Tbivalent / TOL	°C	2 / 2	-10 / -10	-15 / -22
	SCOP / ns	(W/W) / %	6.47 / 256	4.96 / 195	4.31 / 169
	Annual Consumption	kWh	1859	3747	5725
	Class		A+++	A+++	A++
	Medium Temperature Application (W55)		Warmer	Average	Colder
	Application	Climate			
	Pdesign	kW	9.0	9.0	8.0
	Tbivalent / TOL	°C	2 / 2	-10 / -10	-15 / -22
	SCOP / ns	(W/W) / %	4.34 / 171	3.57 / 140	3.26 / 127
	Annual Consumption	kWh	2772	5208	6057
	Class		A+++	A++	A++
Noise Level	Condition (Ambient/Water)		A35W7	A7W35	A2W35
	dB (A)		Cooling: 49	Heating: 51	Heating: 51
	Power Level dB		Cooling: 67	Heating: 68 / 65	Heating: 68 / 65
Air Flow	m <sup>3</sup> /min (ft <sup>3</sup> /min)		Cooling: 85.3 (3010) Heating: 64.9 (2290)		
Refrigeration Control Device			Expansion Valve		
Refrigeration Oil	cm <sup>3</sup>		FW50S (1300)		
Refrigerant (R32)	kg (oz)		1.60 (56.5) Precharge amount 2.20 (77.7) Maximum amount		
F-GAS	GWP		675		
	CO <sub>2</sub> eq (ton) (Precharged / Maximum)		1.080 / 1.485		
Dimension	Height	mm (inch)	1340 (52-25/32)		
	Width	mm (inch)	900 (35-14/32)		
	Depth	mm (inch)	320 (11-24/32)		
Net Weight	kg (lbs)		90 (198)		
Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)		
	Gas	mm (inch)	12.70 (1/2)		

Item		Unit	Outdoor Unit		
Standard Length		m (ft)	7 (23.0)		
Pipe Length Range		m (ft)	3 (9.8) ~ 30 (98.4)		
I/D & O/D Height Difference		m (ft)	20 (65.6)		
Additional Gas Amount		g/m (oz/ft)	30 (0.3)		
Refrigeration Charge Less		m (ft)	10 (32.8)		
Compressor	Type		Hermetic Motor		
	Motor Type		Synchronous Electric Motor (6-poles)		
	Rated Output	kW	3.00		
Fan	Type		Propeller Fan		
	Material		PP		
	Motor Type		DC (8-poles)		
	Input Power	W	-		
	Output Power	W	60		
	Fan Speed	rpm	Cooling: 630 (Top), 670 (Bottom) Heating: 440 (Top), 480 (Bottom)		
Heat Exchanger	Fin material		Aluminium (Pre Coat)		
	Fin Type		Corrugated Fin		
	Row × Stage × FPI		2 × 62 × 19		
	Size (W × H × L)	mm	903.7 × 1302 × 36.38		
Power Source (Phase, Voltage, Cycle)		Ø	Three		
		V	400		
		Hz	50		
Input Power		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		kW	Cooling: 2.83	Heating: 1.84	Heating: 2.48
Maximum Input Power For Heatpump System		kW	6.60		
Power Supply 1 : Phase (Ø) / Max. Current (A) / Max. Input Power (W)			3Ø / 14.7 / 9.60k		
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: 4.5	Heating: 2.9	Heating: 3.9
Maximum Current For Heatpump System		A	10.4		
Power Factor Power factor means total figure of compressor and outdoor fan motor.		%	Cooling: 92	Heating: 93	Heating: 93
Power Cord	Number of core		-		
	Length	m (ft)	-		
Thermostat			Electronic Control		
Protection Device			Electronic Control		

Item		Unit	Indoor Unit		
Performance Test Condition			EN 14511 / EN14825		
Operation Range	Outdoor Ambient	°C	Cooling: 10 / 43 <sup>*1, *2</sup> Heating: -25 / 35		
	Water Outlet	°C	Cooling: 5 / 20 <sup>*1, *2</sup> Heating: 20 / 55 (Below Ambient -15°C) <sup>*3</sup> 20 / 60 (Below Ambient -10°C) <sup>*3</sup>		
Internal Pressure Differential		kPa	Cooling: 27.0 Heating: 28.0		
Noise Level		Condition (Ambient/Water)	A35W7	A7W35	A2W35
		dB (A)	Cooling: 33	Heating: 33	Heating: 33
		Power Level dB	Cooling: 46	Heating: 46	Heating: 46
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)	(1-1/4)		
	Outlet	mm (inch)	(1-1/4)		
Water Drain Hose Inner Diameter		mm (inch)	12 (17/36)		
Pump	Motor Type		Brushless DC Motor		
	No. of Speed		7 (Software Selection)		
	Input Power	W	145		
Hot Water Coil	Type		Brazed Plate		
	No. of Plates		36		
	Size (W × H × L)	mm	120 x 376 x 66		
	Water Flow Rate	l/min (m³/h)	Cooling: 25.2 (1.5) Heating: 25.8 (1.5)		
Pressure Relief Valve Water Circuit		kPa	Open: 300, Close: 266 and below		
Flow Sensor	Type		Piezoelectric sensor		
	Range	l/min	5 ~ 60		
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 (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.
  - \*\*\* 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.
- <sup>\*1</sup> The system is locked to operate without COOL mode. It can be unlocked only by authorised installer or our authorised service partners.
- <sup>\*2</sup> Only displayed when COOL mode is unlocked (This means when COOL mode is available).
- <sup>\*3</sup> Between outdoor ambient -10°C and -15°C, the water outlet temperature gradually decreases from 60°C to 55°C.