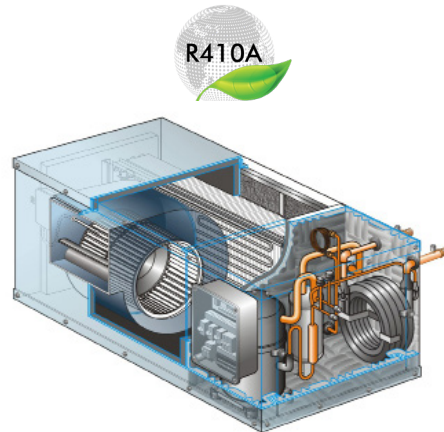


Model WS-12

TECHNICAL DATA

Cooling Capacity ¹	Btu/h	11200
	Watt	3281
Heating Capacity ²	Btu/h	14500
	Watt	4247
Power Consumption - Cooling / Heating	Watt	949/1126
C.O.P - Cooling / Heating		3.46/3.77
Operating Current - Cooling / Heating ³	Amp	6/6
Power Supply	V/Ph/Hz	230V, 1Ph, 50Hz
Time Delay Fuse	Amp	1x10-C



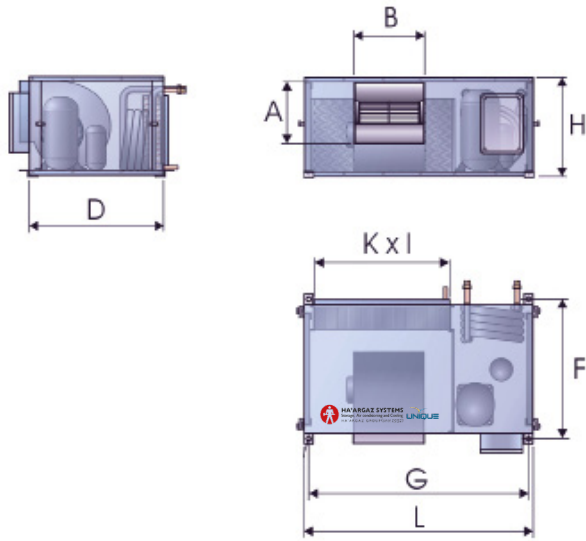
GENERAL			
Air flow (at high speed)	cfm (m ³ /h)		400 (680)
High Fan Speed (No. Speeds)	R.P.M		1200 (3)
Noise Level ⁴	dBA		48
Net Static Pressure ⁵	mm H ₂ O		5
Coil	Face Area	ft ² /m ²	1.27/0.12
	Rows Deep		4
	Fins Spacing	Per Inch	12

DIMENSIONS			
Model		Horizontal	Vertical
LxDxH	mm	880x600x400	500x600x800
A, B, G, F	mm	124, 258, 835, 656	124, 258, - , -
Return Air Duct - K,I	mm		310, 380
Condensate Lines - Drain	Φ-mm (in)		19 (3/4")
Water Inlet/Outlet	Φ in		BSP 3/4"
Net Weight	kg	67	78

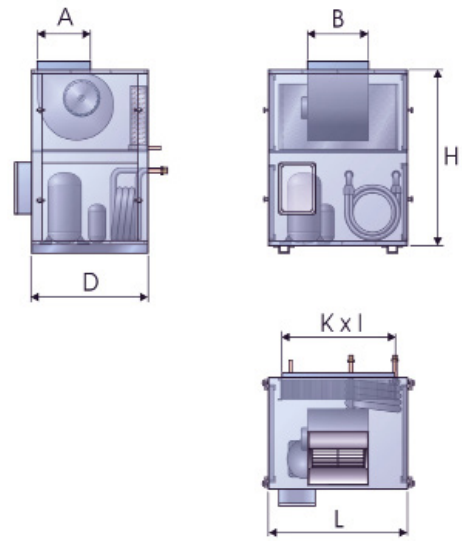
- NOTES:
1. Nominal cooling capacity based on indoor air temp. 27°C DB/19°C WB and entering water temp. 29°C.
 2. Nominal heating capacity based on indoor air temp. 21°C DB and entering water temp. 20°C.
 3. Operating current at heat pump mode, excluding electric heating elements.
 4. Noise level refers to a ducted unit at a distance of 1.5m from the unit.
 5. Net static pressure available at fan discharge at nominal capacity.



HORIZONTAL UNIT



VERTICAL UNIT



PERFORMANCE

COOLING PERFORMANCE								
Entering Water Temp.		Water Flow Rate		Water Pressure Drop	Colling Capacity ¹		Power Consumption	COP
°C	°F	m ³ /h	gpm	m H ₂ O	Watt	Btu/h	Watt	
29	85	0.5	2.1	1.0	3231	11032	938	3.44
		0.6	2.6	1.9	3281	11200	949	3.46
		0.7	3.1	1.9	3330	11368	959	3.47
32	90	0.5	2.1	1.0	3070	10480	990	3.10
		0.6	2.6	1.9	3117	10640	1001	3.11
		0.7	3.1	1.9	3163	10800	1011	3.13
35	95	0.5	2.1	1.0	2992	10216	1041	2.87
		0.6	2.6	1.9	3038	10371	1052	2.89
		0.7	3.1	1.9	3083	10527	1064	2.90

HEATING PERFORMANCE								
Entering Water Temp.		Water Flow Rate		Water Pressure Drop	Heating Capacity ¹		Power Consumption	COP
°C	°F	m ³ /h	gpm	m H ₂ O	Watt	Btu/h	Watt	
12	54	0.5	2.1	1.0	3663	12505	1013	3.62
		0.6	2.6	1.9	3738	12760	1022	3.66
16	61	0.5	2.1	1.0	3913	13357	1064	3.68
		0.6	2.6	1.9	3992	13630	1074	3.72
20	68	0.5	2.1	1.0	4162	14210	1116	3.73
		0.6	2.6	1.9	4247	14500	1126	3.77
24	75	0.5	2.1	1.0	4370	14921	1157	3.78
		0.6	2.6	1.9	4460	15225	1167	3.82

NOTES: 1. Air inlet Temperature - Cooling 27°C DB/19°C WB, Heating 21°C DB.

