

Horizontal concealed fan coil

Description

Vernal concealed fan coil is a ceiling concealed type with 2pipe or 4pipe heat exchanger. It can be provided with electric heater, valve and wired controller as option. Our standard units come with 2pipe heat exchanger, plenum and filter which ESP is 30 Pa.

Vernal ceiling concealed fan coil, can be used in rooms or spaces that require low noise air condition system with low static pressure and hidden out of sight. This type of units is widely used in hotels, villas mansions and luxury houses, since it is hidden inside the false ceiling and only the decorative grill and diffusers obtrusive to the eye.



Features:

Vernal ceiling concealed fan coil consists of 9 models with a wide range of capacities:

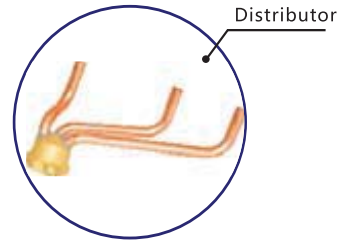
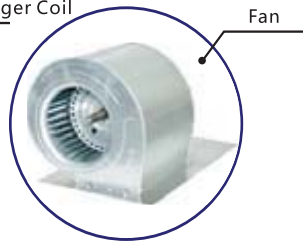
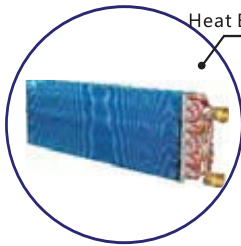
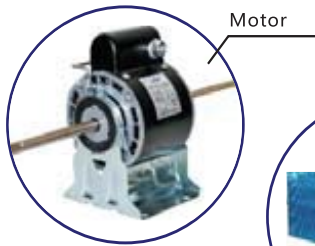
Air Flow Range: 340 - 2380 m³/hr

Cooling Capacity: 2.0 - 12.6 kW

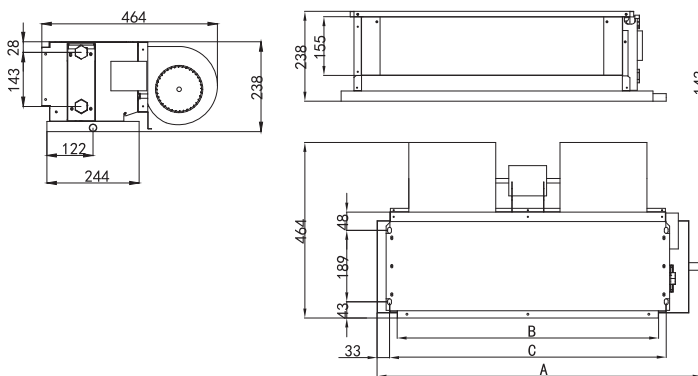
Heating Capacity: 3.8 - 21.8 kW



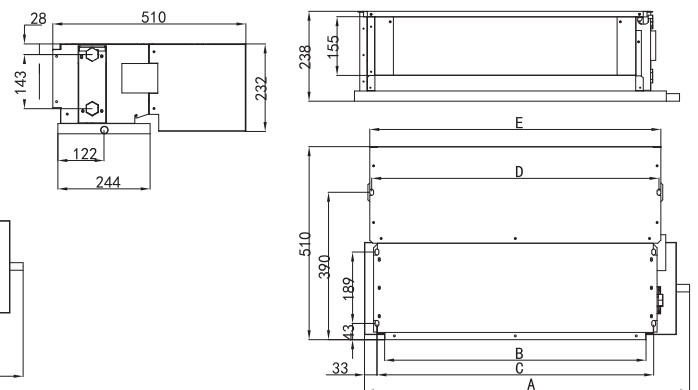
AC/EC Motors



Without air return box



With air return box



Standard Specification

Housing

The housing material is made of SECC electrolysis sheet metal. It has high level of water proofing and anti-corrosion characteristic.

Motor

The motors are either Brushless DC (BDLC) motor * or high quality name-brand domestic motor. The motor has Class B insulation, imported self-lubricated NSK bearing or equal. Each motor has gone through the high precision dynamic balancing. The motor runs smoothly with low noise. The build in thermo protection ensures long life of the motor.

*: Optional

Fan

The fan is built with wide angle casing, none-welded multi-blade, centrifugal impeller. Each fan has gone through strict static and dynamic balancing, to ensure smooth and quiet operation.

Heat Exchanger Coil

The coil is made of special seamless copper tube and high purity aluminum fins. After the mechanical expansion and water pressured, it features high level of heat transfer ratio, high level of resilience and strength. It can sustain high pressure and suitable software to ensure sufficient heat exchange area and smooth air flow. It does not collect dust and has high efficiency of heat exchange.

Distributor

The distributor is specially designed to ensure even water distribution, low resistant to the water flow and high heat exchange efficiency. The special tube design ensures stable installations and guarantees the welding is not affected by the installation.

Drain Pan

The drain pan is made of high quality sheet metal, power coated (or galvanized, ceramic) for the smooth and even, high corrosion resistant and rust-resistant surface. It is formed with one-time stamping, with no weld spot and weld seams. The complete drain pan is insulated. The insulation will not peel and completely prevented the dripping. The drain pan is designed with low spot water draining.

Performance (2 pipe/3 rows)

Model			HCF-020PA	HCF-030PA	HCF-040PA	HCF-050PA	HCF-060PA	HCF-080PA	HCF-100PA	HCF-120PA	HCF-140PA	
Cooling	Cooling Capacity	H	kW	2.0	2.7	3.6	4.5	5.4	7.2	9.0	10.8	12.6
		M		1.8	2.3	3.1	4.2	4.3	5.7	7.9	8.6	10.0
		L		1.6	1.8	2.6	3.0	3.6	4.5	6.0	6.8	8.0
	Water Flow Rate	L/h	345	465	620	775	930	1240	1550	1860	2160	
Water Pressure Drop	kPa	12	21	12	23	30	33	26	33	38		
Heating	Heating Capacity	H	kW	3.8	4.4	5.9	7.5	8.4	14.0	16.0	19.0	21.8
		M		3.3	3.8	5.1	6.5	7.2	12.1	13.8	16.4	18.8
		L		2.1	2.4	3.2	4.1	4.5	7.6	8.6	10.3	11.8
Fan	Type	DIDW centrifugal fans with forward curved blades										
	Model	SYP150/200J	SYP150/150J	SYP150/200J	SYP150/200J	SYP150/200J	SYP150/200J	SYP150/200J	SYP150/150J	SYP150/200J	SYP150/240J	
	Qty.	1	2	2	2	2	3	4	4	4		
Electric Parameter	Power Supply	V/Ph/Hz	220/ 1 / 50									
	Input Power	12Pa	W	37	52	62	76	96	134	152	189	228
		30Pa		44	59	72	87	108	156	174	212	253
		50Pa		49	66	84	100	118	174	210	250	300
	Current	12Pa	A	0.17	0.24	0.29	0.35	0.45	0.62	0.71	0.88	1.06
		30Pa		0.20	0.27	0.33	0.40	0.50	0.72	0.81	0.98	1.17
50Pa		0.23		0.31	0.39	0.46	0.55	0.81	0.97	1.16	1.39	
Air Flow	H	m ³ /h	340	510	680	850	1020	1360	1700	2040	2380	
	M		280	418	558	697	836	1115	1394	1673	1952	
	L		170	255	340	425	510	680	850	1020	1190	
Sound Pressure	12Pa	dB(A)	37	39	41	43	45	46	48	50	52	
	30Pa		40	42	44	46	47	48	50	52	54	
	50Pa		42	44	46	47	49	50	52	54	56	
Net Weight	air return box	kg	10.9	12.9	15.3	16.2	17.2	26	28.8	31.4	38	
	With air return box		13.9	16.5	19.3	20.5	21.8	32	35.2	38.6	46.2	
Water Connection	In	inch	ZG3/4"									
	Out	inch	ZG3/4"									
	Drain Pipe(OD)	mm	G3/4"									
Unit Dimension	A	mm	620	760	860	940	1040	1370	1470	1670	1820	
	B		452	592	692	772	872	1202	1302	1502	1652	
	C		492	632	732	812	912	1242	1342	1542	1692	
	D		520	660	760	840	940	1270	1370	1570	1720	
	E		530	670	770	850	950	1280	1380	1580	1730	

- 1、Cooling capacity measured at inlet dry ball temp. 27°C, wet ball temp. 19.5°C, inlet water temp. 7°C, outlet water temp.12°C
- 2、Heating capacity measured at inlet dry ball temp. 21°C, inlet water temp. 60°C, same water flow as cooling
- 3、Rated air Flow measured under standard atmosphere, dry condition at dry ball temp. 20°C
- 4、Sound pressure level measured at the semi-anechoic chamber GB/T 19232-2003
- 5、H: High Speed, M: Medium Speed, L: Low Speed