EC Motor Cassette



Unit description

EC4W series 4-way cassette fan coil units are terminals of a hydronic system for installation in false ceilings. They can be used with chilled or hot water to form an air conditioning system.

The air flow range: 154 - 1,168 CFM.

The output available range: 1.83 - 10.03 KW in the standard configuration.

Full Range in 3 Sizes

Energy saving with EC motor

Programmable motor RPM set by technician Satisfying various capacity/air flow output

Maximum reduce ware house space

Unit composition

Air grille-module (cassette panel assembly)

Aesthetic panel design, in ABS material with high mechanical characteristics and resistance to ageing.

With synthetic washable and removable air filter, motor-drive louvers.

Unit body casing

Made of galvanized steel sheet metal, assembled by rivets. The internal & external surfaces are thermally and acoustically insulated with closed cell expanded polyethylene sheets. With pre-stamped lateral holes for connection to a fresh air intake and to the discharge duct for treating the adjacent room. With pump maintenance port, easily access the service of drain pump.

Heat exchanger

The high efficiency, low pressure drop finned coils, made from 3/8" copper tubes and high exchange surface area aluminium hydrophilic fins, are 100% tested against leaks with dried air at 30 bars.

The 3/4" pipe connections are with air purging vent, partial drainage vent, and with supporting bracket.

Condensate recovery tray

In thermoforming high density expanded polystyrene, covered with a vacuum forming polyvinyl chloride, fitted with a condensates draining pump and a safety float.

The auxiliary external drain pan is supplied to collect the potential condensate water from pipe connections and lead to the internal recovery tray.

Condensate drain pump

The drain pump with 700 mm of maximum head, with no return valve, integral with the unit and wired to the electronic board.

Float switch is connected with the electronic board to control the condensate and alarm level.

EC fan motor assembly

The centrifugal balanced fan blower with 3-speed EC motor, accessible through the air inlet grille for maintenance.

Electrical box

Composed of a box outside the unit which contains the electronic control board whose connection terminals are easily accessible.

Microprocessor control system

- wireless remote control
- wired wall pad control (optional)
- on/off valve control
- electric heater control
- auto restart
- operation mode control
- auto-diagnose, protections and error code display
- on board jumper and DIP switch configuration
- room air temp. sensor & coil temp. sensor
- AUX free contact
- RS485 remote communication serial port
- EC motor RPM speeds set input port



remote controller (standard)



wired wall pad (optional)

EC4W SERIES CASSETTE FAN COIL UNIT (2 PIPE) SPECIFICATION

Code: EC4W -			S 35C	S 45C	S 50C	M 55C	M 65C	M 70C	L 80C	L 90C	L 100C
System			2 pipe	2 pipe	2 pipe	2 pipe	2 pipe	2 pipe	2 pipe	2 pipe	2 pipe
CFM			318	431	514	549	692	843	769	927	1168
	Н		3.56	4.52	5.03	5.55	6.51	7.01	8.07	9.06	10.03
Total cooling capacity	М	kW	2.79	3.56	4.16	4.46	5.34	6.12	6.57	7.56	8.76
	L		2.10	2.54	2.95	3.30	3.86	4.57	5.00	5.65	6.57
	Н		2.65	3.46	3.92	4.36	5.26	5.86	6.45	7.40	8.42
Sensible cooling capacity	М	kW	2.02	2.65	3.15	3.42	4.17	4.88	5.06	5.98	7.11
	L		1.49	1.82	2.15	2.50	2.93	3.52	3.60	4.21	5.06
Chilled water flow rate		l/h	612	777	865	954	1,120	1,206	1,388	1,558	1,725
Chilled water pressure drop		kPa	12.5	18.9	22.3	11.3	14.8	16.6	19.1	23.4	27.7
	Н		4.48	5.88	6.83	7.40	8.79	10.02	10.81	12.42	14.63
Heating capacity	М	kW	3.43	4.48	5.33	5.87	7.10	8.20	8.64	10.06	11.91
	L		2.54	3.10	3.64	4.20	5.00	6.03	6.40	7.33	8.64
	Н		540	732	874	933	1,176	1,433	1,308	1,576	1,985
Air flow	М	m ³ /h	408	540	655	708	887	1,068	975	1,189	1,488
	L		302	368	434	500	596	731	662	790	975
	Н		35	42	46	36	42	47	37	41	46
Sound pressure (1m)	М	dB(A)	29	35	39	33	35	40	31	35	40
	L		27	29	30	28	28	33	27	28	31
Unit power input		W	22	32	42	26	38	56	42	59	95
Unit running current		Α	0.153	0.231	0.313	0.205	0.294	0.434	0.306	0.446	0.705
Fan motor power		W	13	23	33	17	29	47	33	50	86
Fan motor running current		Α	0.114	0.192	0.274	0.166	0.255	0.395	0.267	0.407	0.666
Power supply			220-240V/1Phase/50(60)Hz		220-240V/1Phase/50(60)Hz			220-240V/1Phase/50(60)Hz			
Fan blower type			centrifugal		centrifugal			centrifugal			
Fan number nr.		nr.	1			1			1		
Coil rows number nr.		2		2			2				
Fins distance mm			1.6		1.6			1.6			
Coil tube diameter inch		3/8"		3/8"			3/8"				
Body dimension (L*W*H) mm		581*581*290		701*701*290			811*811*290				
Panel dimension (L*W) mm		680*680		830*830			980*980				
Weight kg		23 30 38									
Water inlet/outlet pipe inch		3/4" (FPT)									
Condensate discharge inch		1" (outer diamger)									

Cooling:

Inlet air temp.: DB+27°C/WB+19°C

Inlet/outlet water temp. +7°C/+12°C

Heating:

Inlet air temp.: +20°C

Inlet water temp. +50°C; Same water flow rate as for the cooling;

The EC motor H/M/L speeds are programmable by technician.

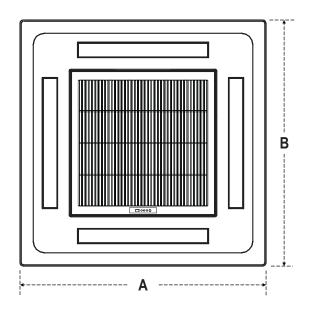
- can be set at any integer value between Min.- Max. range
- can be pre-set at factory

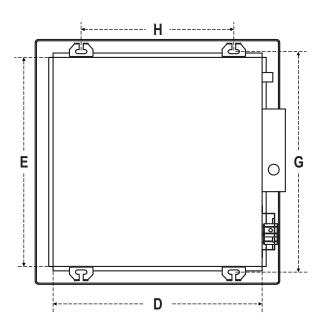
- can be reset by technician with RPM set writter controller

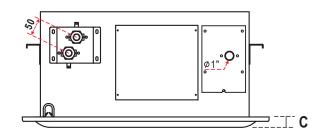
The r.p.m. can be set at different value in range to satisfy the target capacity or air flow or noise level.

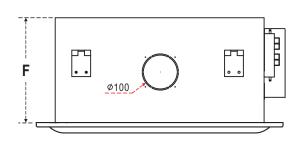
Please consult the r.p.m. value with the enquiry target.

	EC4V	N-S	EC4V	V-M	EC4W	EC4W-L		
Motor H/M/L speeds:	300 - 850	r.p.m.	300 - 710	r.p.m.	300 - 730	r.p.m.		
Air flow output:	154 - 574	CFM	294 - 843	CFM	389 - 1168	CFM		
Noise:	27 - 48	dB(A)	28 - 47	dB(A)	27 - 46	dB(A)		







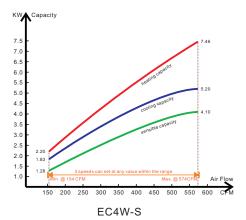


Code	Α	В	С	D	Е	F	G	Н	
EC4W-S	680	680	30	581	581	290	616	424	mm
EC4W-M	830	830	30	701	701	290	736	542	mm
EC4W-L	980	980	30	811	811	290	846	654	mm

The EC motor H/M/L speeds are programmable by technician. - can be set at any integer value between Min.- Max. range

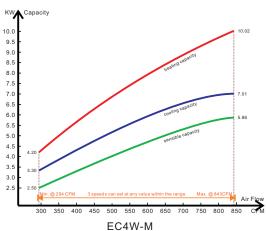
- can be pre-set at factory
- can be reset by technician with RPM set writter controller

The r.p.m. can be set at different value in range to satisfy the target capacity or air flow or noise level. Please consult the r.p.m. value with the enquiry target.



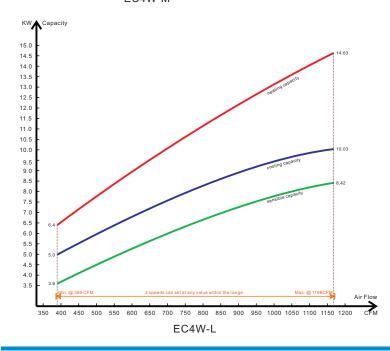
EC4W-S

Motor H/M/L speeds:	300 - 850	r.p.m.
Air flow output:	154 - 574	CFM
Cooling capacity:	1.83 - 5.20	kW
Heating capacity:	2.20 - 7.46	kW
Noise:	27 - 48	dB(A)



EC4W-M

Motor H/M/L speeds:	300 - 710	r.p.m.
Air flow output:	294 - 843	CFM
Cooling capacity:	3.30 - 7.01	kW
Heating capacity:	4.20 - 10.02	kW
Noise:	28 - 47	dB(A)



EC4W-L

Motor H/M/L speeds:	300 - 730	r.p.m.
Air flow output:	389 - 1168	CFM
Cooling capacity:	5.00 - 10.03	kW
Heating capacity:	6.40 - 14.63	kW
Noise:	27 - 46	dB(A)