Intelligent Fan Coil Unit





INSPIRON Air®

iFCU-AHRI 2025-V1.0

Intelligent Fan Coil Unit

Quality products; Sustainable solutions; Superior service

This document is dedicated to those looking for advanced and specialized Fan Coil Units or customized Fan Coil Units cooperation partner.

All products conform to UL standard for Safety for Heating and Cooling Equipment UL1995 4th Edition, October 14, 2011;

All products conform to CSA standard for Safety for Heating and Cooling Equipment CSA C22.2 No.236-11, 4th Edition, October 14 2011.

All products certified by AHRI.

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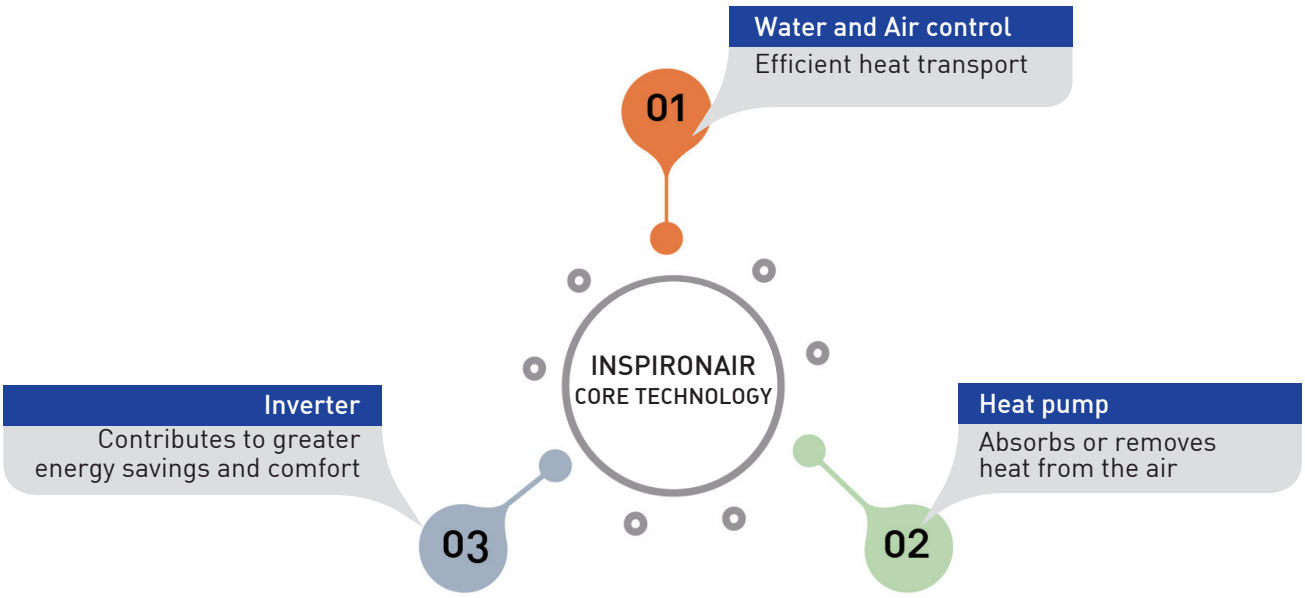
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A ABOUT INSPIRON AIR

Inspiron AIR has over **16** years of industry experience in developing and manufacturing a wide variety of HVAC units to provide superior new construction heating and cooling systems. Inspiron AIR offers advanced green technologies and provides world-class comfort at high efficiency levels, meeting environmental standards and promoting a healthy environment.

INSPIRON AIR'S 3-CORE TECHNOLOGIES

Inspiron Air is a HVAC technology company. We develop state-of-the-art technology that provides indoor comfort solutions for our customers. We do this by focusing on 3 core technologies. Our air and water control technology provides an efficient and effective way to transport heat. Inspiron Air inverter technology allows us to maximize energy efficiency and heat pump technology provides an effective method for moving air and water.



Inspiron Air's Intelligent Fan Coil Units (iFCU) comes with intelligent controls to balance water flow volume and air water flow volume based on end of user comfort and simply installation. iFCUs are available in a multitude of configurations with a wide variety of accessories and options such as 2-pipe and 4-pipe systems, customized valve packages and customized sheet metal to create a custom design tailored to the needs of the project.

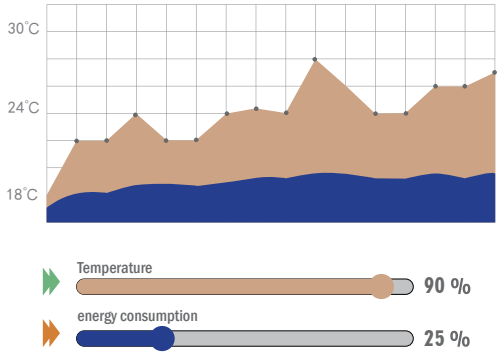
Inspiron Air products are designed to provide years of trouble-free operation and reliable performance in multi-family housing, hotels/motels, dormitories, commercial buildings and similar projects. Units are ideal for new construction, retrofit and replacement applications.

Inspiron Air is pleased to make any customized units for projects or HVAC manufacture requirements.

FEATURES OF INTELLIGENT FAN COIL

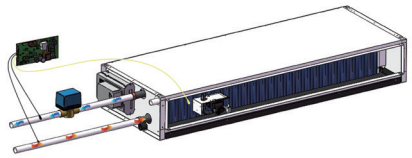
Consistently uniform temperature and lower energy consumption

Through the use of EC motors or/and modulating valves, iFCU are high efficient while providing suitable indoor air temperature based on technology of VWV &VAV.



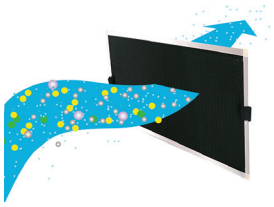
Variable Water Volume

The water flow through the fan coil is controlled by a temperature difference between the flow and return pipework – referred to as Δt, to ensure the correct heat transfer from the water to the air. Constant Δt keep the unit running efficiency and consequently the whole life running costs of the system.



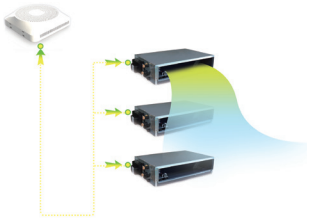
Clean the air and control the temperature

In addition to complete and flexible temperature control, iFCU is responsible for air quality. It comes with a large filter with easy access, ensuring efficient air cleaning and making filter cleaning or replacement possible.



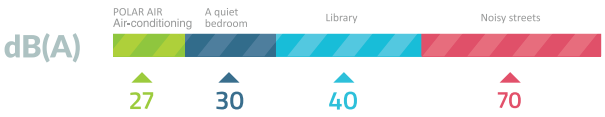
Fresh air volume

The fresh air duct can be connected directly to the iFCU. If fresh air is allowed to enter the damper, the amount of fresh air can be constant or variable and is controlled by the CO2 sensor.



Quiet operation

Fans that run continuously allow the fan coil to operate at a very low speed, making noise almost imperceptible. The iFCU is equipped with a control system that continuously adjusts fan speed to suit system comfort requirements.



Intelligent Fan Coil Unit Commissioning

Supply air volume

> Supply air volume modulating control by temperature or ESP;

> Entering air temperature (DB) reading;

> Discharge ESP reading;

>Supply fan RPM reading

> Supply RPM setting and selection;

> Supply ESP setting;

> Room temperature setting;

iFCU water flow can be set by Delta T, Delta P or Water flow.

> Supply water temperature;

> Return water temperature;

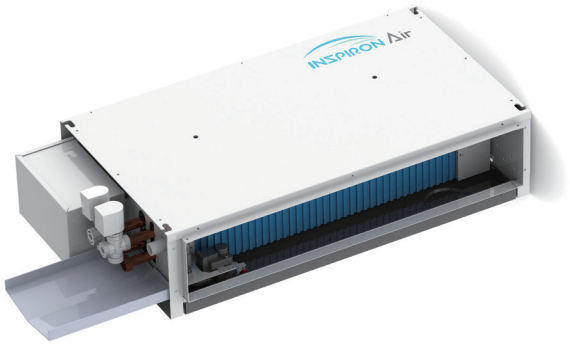
> Supply Pressure if selected

> Return Pressure if selected

> Water flow meter if selected

Horizontal Ultra Thin with Plenum & filter

iFCHU-AECM



The slim, space-saving iFCHU unit is designed specifically for under-ceiling mounting. This flexibility allows the unit to be customized to meet a variety of job requirements.

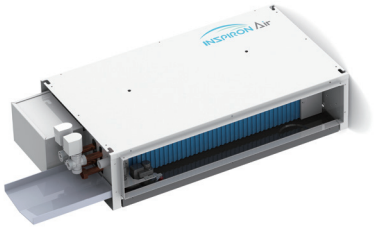
» Performance in accordance to Standard AHRI 440;
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment);
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard;
» High-efficiency Variable speed ECM motor available for higher energy efficiency;
» Completed controller with VAV & VWV control logic;
» Drainage condensate water pump with 28 inch head;
» Merv 8 class filter & External drain pan as standard;
» Plenum is field reversible for either rear or bottom return without the need for special adapters and tools;
» Special grade GI steel with Al + Zn coating known as 'Galvalume';
» 2-way / 3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCHU(3R) - 400 - V X - S - AECM - L

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
400~800	Unit Sizes
3R	3R — 2-pipe 3-row 3R+1 — 4-pipe 3-row for cooling and 1 row for heating
FCHU	Horizontal Ultra Thin with Plenum & filter
i	Intelligent Fan Coil Unit

Technical Data

● iFCHU



iFCHU(3R)-V-AECM

Product range: iFCHU(3R)-VY/VX~AECM Horizontal Ultra Thin Unit 3-Row Coil 2-Pipe with EC motor

iFCHU(3R)-[Size]-V-AECM						400	600	800
Unit Configuration		Configuration				2-pipe		
		Number Of Fan Blowers				2	3	4
		Power Supply			(V/Ph/Hz)	115/ 1 / 60 or220/ 1 / 60		
		Operation Control				~S: Complete controller with VAV&VWV control logic		
						~W: EC motor driver suitable for connection to AC or EC modulating thermostat		
Performance Data	Air	Air Flow	H	3	CFM	351	539	726
			M	2		254	379	506
			L	1		101	155	225
		ESP	H	3	in.wg	0.05	0.05	0.05
			M	2				
			L	1				
	Cooling	Cooling Capacity	H	3	BTU/Hr	10150	16124	21426
			M	2		7807	12174	16178
			L	1		3667	5921	8407
		Sensible Cooling Capacity	H	3		6812	10778	14340
			M	2		5186	8045	10704
			L	1		2425	3900	5559
	Heating	Heating Capacity	H	3	BTU/Hr	15779	25066	33308
			M	2		12137	18926	25149
			L	1		5701	9205	13069
		Max. Electric Heater Capacity				1.5	2	3
	Sound	Sound Pressure Level (Outlet)			dB(A)	43/37/22	45/40/25	46/41/26
		Sound Pressure Level(Inlet + Radiated)				46/40/25	48/43/28	49/44/29
		Sound Power Level (Outlet)				52/46/31	54/49/34	55/50/35
		Sound Power Level(Inlet + Radiated)				55/49/34	57/52/37	58/53/38
	Electrical	Fan Motor Power	H	3	W	42	70	84
			M	2		23	40	43
			L	1		11	15	17
	Hydraulic	Cooling Water Flow Rate		3	GPM	2.0	3.2	4.2
				2		1.5	2.4	3.2
				1		0.7	1.2	1.7
		Cooling Pressure Drop		3	ft WG	9.62	10.31	9.58
				2		6	6.22	5.78
				1		1.54	1.7	1.78
		Heating Water Flow Rate		3	GPM	2.0	3.2	4.2
				2		1.5	2.4	3.2
				1		0.7	1.2	1.7
		Heating Pressure Drop		3	ft WG	8.66	9.28	8.62
				2		5.4	5.6	5.2
				1		1.39	1.53	1.6
		Water Content			US gal	0.208	0.35	0.475
Construction and Packing Data		WaterConnections		Type		Socket(Threaded Female)		
				In	in	3/4”		
				Out				
		Condensate Drainage Connection				1”		
		Dimensions		L	inch	35-7/8”	53”	66-1/8”
				W		20”		
				H		7 7/8”		
		Net Weight			lbs	44	62	77

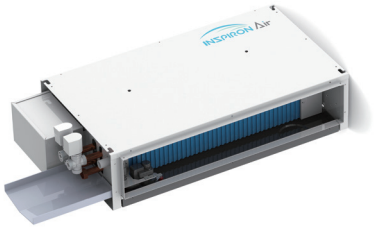
Testing conditions:

a. Cooling mode :
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode :
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

iFCHU



iFCHU(3R+1)-P-AECM

Product range: iFCHU(3R+1)-VY/VX~AECM Horizontal Ultra Thin Unit 3-Row cooling coil and 1-Row heating coil 4-Pipe with EC motor

iFCHU(3R+1)-[Size]-P-AECM						400	600	800
Unit Configuration		Configuration				4-pipe		
		Number Of Fan Blowers				2	3	4
		Power Supply			(V/Ph/Hz)	115/ 1 / 60 or 220/ 1 / 60		
		Operation Control				~S: Complete controller with VAV&VWV control logic		
						~W: EC motor driver suitable for connection to AC or EC modulating thermostat		
Performance Data	Air	Air Flow	H	3	CFM	364	553	735
			M	2		266	397	523
			L	1		103	143	181
		ESP	H	3	in.wg	0.05	0.05	0.05
			M	2				
			L	1				
	Cooling	Cooling Capacity	H	3	BTU/Hr	10435	16420	21819
			M	2		8120	12663	16610
			L	1		3797	5516	7061
		Sensible Cooling Capacity	H	3		7017	10990	14622
			M	2		5411	8393	11018
			L	1		2515	3623	4635
	Heating	Heating Capacity	H	3	BTU/Hr	9716	15205	20342
			M	2		7561	11726	15486
			L	1		3536	5108	6583
		Max. Electric Heater Capacity				1.5	2	3
	Sound	Sound Pressure Level (Outlet)			dB(A)	43/37/22	45/40/25	46/41/26
		Sound Pressure Level(Inlet + Radiated)				46/40/25	48/43/28	49/44/29
		Sound Power Level (Outlet)				52/46/31	54/49/34	55/50/35
		Sound Power Level(Inlet + Radiated)				55/49/34	57/52/37	58/53/38
	Electrical	Fan Motor Power	H	3	W	42	70	84
			M	2		23	40	43
			L	1		11	15	17
	Hydraulic	Cooling Water Flow Rate		3	GPM	2.1	3.2	4.3
				2		1.6	2.5	3.3
				1		0.8	1.1	1.4
		Cooling Pressure Drop		3	ft WG	10.11	10.66	9.9
				2		6.44	6.68	6.06
				1		1.64	1.5	1.3
		Heating Water Flow Rate		3	GPM	0.5	0.8	1.0
				2		0.4	0.6	0.8
				1		0.2	0.3	0.3
		Heating Pressure Drop		3	ft. wg	1.23	0.58	1.23
				2		0.78	0.37	0.75
				1		0.2	0.08	0.16
		Cooling coil Water Content			US gal	0.208	0.35	0.475
		Heating coil Water Content				0.069	0.117	0.158
Construction and Packing Data		Water Connections	Type			Socket(Threaded Female)		
			In		in	3/4”		
			Out					
		Condensate Drainage Connection				1”		
		Dimensions		L	inch	35-7/8”	53”	66-1/8”
				W		20”		
				H		7 7/8		
		Net Weight			lbs	44	62	77

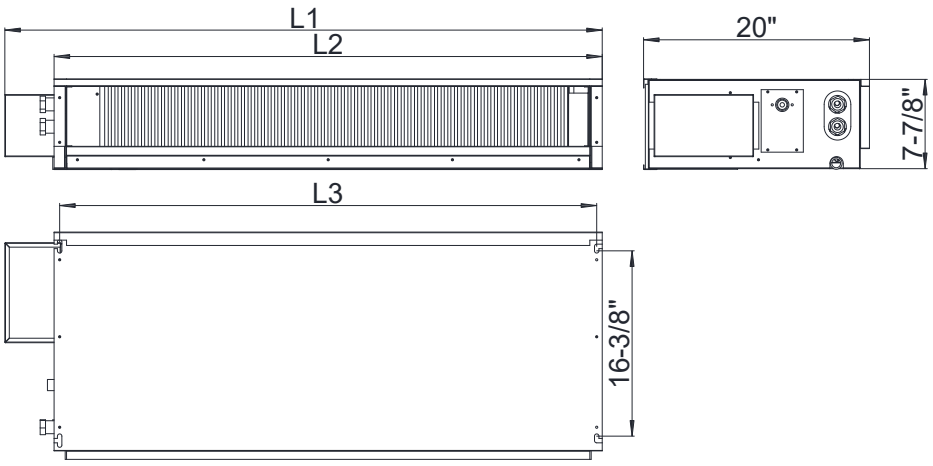
Testing conditions:

a. Cooling mode :
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

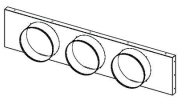
Dimensional drawings



Model	400	600	800
L	35-7/8”	53”	66-1/8”
L1	31-1/2”	48-5/8”	61-7/8”
L2	30-1/2”	47-5/8”	60-7/8”

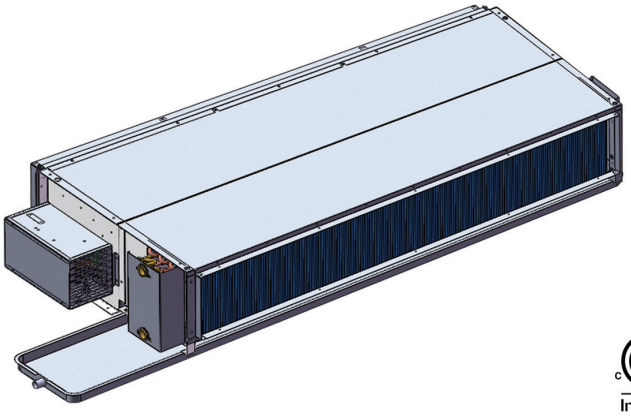
All dimensions are approximate and within 1/16 of an inch of those indicated.

Accessories (Optional Part)

Accessories	photo	Code	Description
1. Drain pan		BCP-SSDP-iFCHU-001	Stainless steel drain-pan for iFCHU-400
		BCP-SSDP-iFCHU-002	Stainless steel drain-pan for iFCHU-600
		BCP-SSDP-iFCHU-003	Stainless steel drain-pan for iFCHU-800
2. E-heater kit		BCP-EH-220-iFCHU-PTC-001	Electrical heater module maximum 1.5kw 220V for iFCHU-400
		BCP-EH-220-iFCHU-PTC-002	Electrical heater module maximum 2kw 220V for iFCHU-600
		BCP-EH-220-iFCHU-PTC-003	Electrical heater module maximum 3kw 220V for iFCHU-800
3. Valve kit		BCP25-RCS-VALVE-iFCHU-001B	24VAC 3/4"2-way thermal valve kit
		BCP25-RCS-VALVE-iFCHU-002B	24VAC 3/4" 3-way thermal valve kit
		BCP25-RCS-VALVE-iFCHU-003	24VAC 3/4" Modulating 2-way thermal valve kit
4.Round plenum		BCP-Round-iFCHU-001	Discharge/Return Round plenum for iFCHU-400
		BCP-Round-iFCHU-002	Discharge/Return Round plenum for iFCHU-600
		BCP-Round-iFCHU-003	Discharge/Return Round plenum for iFCHU-800

Horizontal Ceiling Concealed with Plenum & filter

iFCHC-AECM



Easily adaptable for concealed or above-ceiling mounting, the iFCHC compact fan coil units save floor space, making it an ideal choice for use in new construction and retrofit applications. The design flexibility allows the unit to be customized to meet a variety of space requirements. The units are designed for easy installation and service.

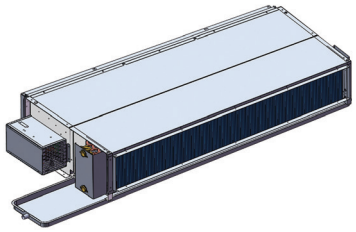
» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» ESP 0.05/0.12/0.2 can be set on site or remote diagnosis;
» Special grade GI steel with Al + Zn coating known as 'Galvalume'
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCHC - 400 - VX -S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
200~1600	Unit Sizes
iFCHC	Horizontal ceiling concealed unit with Plenum & filter

Technical Data

● iFCHC



iFCHC(3R)-V-AECM

Product range: iFCHC(3R)-V~-AECM Hydronic Ducted 2-pipe Unit with 3-row Coil and EC motor

iFCHC(3R)-[Size]-V~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			2-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	278	369	510	576	698	979	1090	1239	1773	2365
			M		221	330	429	449	594	742	946	1161	1670	2226
			L		166	241	246	337	486	579	757	967	1214	1620
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	8910	11670	15129	17351	19984	30579	31199	35309	49241	59004
			M		7524	10718	13261	14368	17810	24660	28081	33558	47205	56709
			L		6013	8414	8566	11507	15147	20479	23616	29238	37075	44349
		Sensible Cooling Capacity	H		6066	7917	10414	11844	13558	20793	21473	24267	33880	40444
			M		5053	7245	9074	9660	11947	16514	19173	23011	32378	38739
			L		4001	5588	5713	7673	10099	13604	15945	19792	24999	29773
	Heating	Heating Capacity	H	Btu/Hr	13851	18142	23519	26973	31067	47536	48500	54890	76547	91724
			M		11697	16662	20614	22335	27687	38335	43653	52167	73382	88157
			L		9347	13079	13317	17888	23546	31835	36712	45452	57635	68943
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/41	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		32	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.8	2.3	3.0	3.4	4.0	6.0	6.2	7.0	9.7	11.65
			M		1.5	2.1	2.6	2.8	3.5	4.9	5.6	6.6	9.3	11.2
			L		1.2	1.7	1.7	2.3	3.0	4.0	4.7	5.8	7.3	8.6
		Cooling Pressure Drop	H	ft.wg	7.8	14.0	8.0	11.1	15.4	19.6	7.1	9.3	19.8	29.4
			M		5.8	12.0	6.3	7.9	12.5	13.3	5.9	8.5	18.4	27.4
			L		3.9	7.8	2.9	5.3	9.3	9.5	4.3	6.6	11.9	17.6
		Heating Water Flow Rate	H	GPM	1.8	2.3	3.0	3.4	4.0	6.0	6.2	7.0	9.7	11.6
			M		1.5	2.1	2.6	2.8	3.5	4.9	5.6	6.6	9.3	11.2
			L		1.2	1.7	1.7	2.3	3.0	4.0	4.7	5.8	7.3	8.7
		Heating Pressure Drop	H	ft.wg	7.0	12.6	3.0	10.0	13.9	17.7	6.4	8.4	17.8	26.4
			M		5.2	10.8	2.6	7.1	11.3	12.0	5.3	7.6	16.5	24.6
			L		3.5	7.0	1.7	4.8	8.4	8.6	3.9	6.0	10.7	15.8
		water content		US.gal	0.190	0.230	0.269	0.309	0.348	0.507	0.546	0.586	0.684	0.758
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

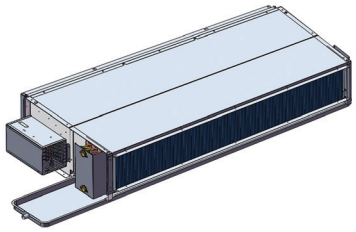
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCHC



iFCHC(4R)-V-AECM

Product range: iFCHC(4R)-V~-AECM Hydronic Ducted 2-pipe Unit with 4-row Coil and EC motor

iFCHC(4R)-[Size]-V~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			2-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	259	350	479	543	662	920	1044	1188	1710	2281
			M		205	315	403	419	567	692	909	1122	1621	2162
			L		155	231	226	318	468	546	733	938	1182	1576
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	7471	9542	12866	15648	18026	24687	29710	33678	45550	54408
			M		6253	8818	11237	12867	16110	19961	26741	32215	43918	52280
			L		5041	6974	7227	10432	13830	16481	22723	28236	34494	41102
		Sensible Cooling Capacity	H		5274	6715	9071	14524	12733	17417	20946	23741	32507	38838
			M		4353	6184	7873	11759	11286	13864	18703	22664	31261	37284
			L		3479	4807	4929	9461	9585	11360	15719	19612	24136	28880
	Heating	Heating Capacity	H	Btu/Hr	11613	14833	20000	24326	28022	38377	46185	52353	70810	87579
			M		9721	13709	17469	20002	25043	31031	41570	50079	68273	81272
			L		7837	10841	11235	16217	21500	25621	35324	43894	53622	63894
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	45/44/39	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		26	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.0	1.3	1.7	2.1	2.4	3.3	4.0	4.5	6.1	7.2
			M		0.8	1.2	1.5	1.7	2.2	2.7	3.6	4.3	5.9	6.9
			L		0.7	0.9	1.0	1.4	1.8	2.2	3.0	3.8	4.6	5.5
		Cooling Pressure Drop	H	ft.wg	3.7	6.4	11.9	6.0	8.4	8.7	12.8	16.9	11.1	16.6
			M		2.7	5.5	9.3	4.2	6.9	6.0	10.6	15.6	10.4	15.5
			L		1.8	3.6	4.2	2.9	5.2	4.2	7.9	12.3	6.7	10.0
		Heating Water Flow Rate	H	GPM	1.0	1.3	1.7	2.1	2.4	3.3	4.0	4.5	6.1	7.2
			M		0.8	1.2	1.5	1.7	2.2	2.7	3.6	4.3	5.9	6.9
			L		0.7	0.9	1.0	1.4	1.8	2.2	3.0	3.8	4.6	5.4
		Heating Pressure Drop	H	ft.wg	3.4	5.7	10.7	5.4	7.6	7.9	11.5	15.2	10.0	14.9
			M		2.4	5.0	8.4	3.8	6.2	5.4	9.5	14.0	9.4	13.9
			L		1.7	3.3	3.8	2.6	4.7	3.8	7.1	11.1	6.1	9.0
		water content		US.gal	0.253	0.306	0.359	0.412	0.465	0.676	0.729	0.781	0.912	1.010
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

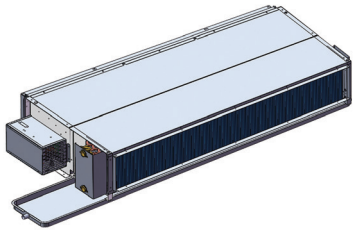
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCHC



iFCHC(6R)-V-AECM

Product range: iFCHC(6R)-V~-AECM Hydronic Ducted 2-pipe Unit with 6-row Coil and EC motor

iFCHC(6R)-[Size]-V~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			2-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	224	313	421	484	596	809	957	1094	1593	2124
			M		173	284	352	360	511	591	837	1043	1524	2032
			L		133	210	186	279	430	480	686	881	1116	1488
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	7409	10374	13571	15932	19076	26557	31275	35601	49627	62824
			M		6116	9688	11878	12678	17001	20939	28268	34398	47929	60759
			L		4931	7662	7283	10405	14949	17747	24259	30030	37899	47825
		Sensible Cooling Capacity	H		5109	7123	9366	10955	13183	18240	21453	24375	34351	44037
			M		4155	6614	8099	8590	11617	14137	19211	23488	33127	42532
			L		3321	5161	4829	6977	10162	11915	16398	20380	25717	32896
	Heating	Heating Capacity	H	Btu/Hr	11518	16127	21096	24768	29655	41284	48619	55343	77147	97663
			M		9507	15061	18464	19709	26429	32550	43945	53474	74507	94452
			L		7665	11912	11322	16176	23238	27588	37712	46683	58917	74345
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/56/52	52/50/48
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/65/61	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	59	63	83	96	102	150	180	224	363	380
			M		58	52	58	68	84	128	147	190	286	310
			L		54	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.0	1.4	1.8	2.1	2.5	3.5	4.2	4.7	6.6	8.37
			M		0.8	1.3	1.6	1.7	2.3	2.8	3.8	4.6	6.4	8.1
			L		0.7	1.0	1.0	1.4	2.0	2.4	3.2	4.0	5.0	6.37
		Cooling Pressure Drop	H	ft.wg	5.5	11.0	6.4	9.3	6.3	14.9	11.4	15.0	17.7	14.4
			M		3.9	9.8	5.1	6.2	5.1	9.7	9.5	14.1	16.6	13.6
			L		2.7	6.4	2.1	4.3	4.1	7.2	7.2	11.1	10.9	8.8
		Heating Water Flow Rate	H	GPM	1.0	1.4	1.8	2.1	2.5	3.5	4.2	4.7	6.6	8.37
			M		0.8	1.3	1.6	1.7	2.3	2.8	3.8	4.6	6.4	8.1
			L		0.7	1.0	1.0	1.4	2.0	2.4	3.2	4.0	5.0	6.37
		Heating Pressure Drop	H	ft.wg	5.0	9.9	5.8	8.4	5.7	13.4	10.2	13.5	15.9	13.0
			M		3.5	8.8	4.6	5.6	4.6	8.7	8.5	12.7	14.9	12.2
			L		2.4	5.8	1.9	3.9	3.7	6.5	6.5	10.0	9.8	7.9
		water content		US.gal	0.380	0.459	0.539	0.618	0.697	1.014	1.093	1.172	1.368	1.515
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

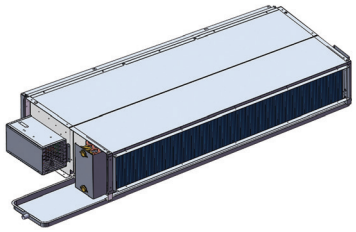
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCHC



iFCHC(3R+1)-P-AECM

Product range: iFCHC(3R+1)-P~-AECM Hydronic Ducted 4-pipe Unit with 3-row Cooling and 1-row Heating Coils and EC motor

iFCHC(3R+1)-[Size]-P~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			4-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	259	350	479	543	662	920	1044	1188	1710	2280
			M		205	315	403	419	567	692	909	1122	1621	2161
			L		155	231	226	318	468	546	733	938	1182	1575
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	8471	11194	14447	16613	19222	29153	30308	34308	48115	57693
			M		7062	10322	12667	13585	17168	23374	27190	32807	45947	55359
			L		5650	8151	8109	10938	14794	19535	23124	28711	36082	43578
		Sensible Cooling Capacity	H		5754	7581	9923	11318	12982	19784	20833	23549	33038	39469
			M		4722	6957	8632	9102	11486	15595	18494	22461	31480	37748
			L		3751	5409	5377	7279	9855	12955	15605	19411	24284	29220
	Heating	Heating Capacity	H	Btu/Hr	7365	9705	12865	14521	17265	24485	27471	30588	41145	52457
			M		6191	9003	11246	11925	15248	19727	24765	29316	39966	50669
			L		4970	7065	7164	9653	13238	16439	20890	25321	31042	39623
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		26	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.7	2.2	2.9	3.3	3.8	5.8	6.0	6.8	9.5	11.39
			M		1.4	2.0	2.5	2.7	3.4	4.6	5.4	6.5	9.07	10.93
			L		1.1	1.6	1.6	2.2	2.9	3.9	4.6	5.7	7.13	8.61
		Cooling Pressure Drop	H	ft.wg	7.1	13.0	7.4	10.3	14.4	18.0	6.7	8.8	19.0	28.2
			M		5.1	11.2	5.8	7.1	11.7	12.1	5.5	8.1	17.5	26.2
			L		3.4	7.3	2.6	4.8	9.0	8.8	4.1	6.4	11.3	17.0
		Heating Water Flow Rate	H	GPM	0.4	0.5	0.6	0.7	0.9	1.2	1.4	1.5	2.05	2.61
			M		0.3	0.5	0.6	0.6	0.8	1.0	1.2	1.4	1.98	2.52
			L		0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.3	1.55	1.97
		Heating Pressure Drop	H	ft.wg	0.7	1.4	2.5	3.5	0.7	1.9	2.4	3.2	0.5	0.8
			M		0.5	1.2	2.0	2.5	0.6	1.3	2.0	2.9	0.5	0.8
			L		0.4	0.8	0.9	1.7	0.5	0.9	1.5	2.3	0.3	0.5
		Chilled water content		US.gal	0.190	0.230	0.269	0.309	0.348	0.507	0.546	0.586	0.684	0.758
		Hot water content			0.063	0.077	0.090	0.103	0.116	0.169	0.182	0.195	0.228	0.253
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

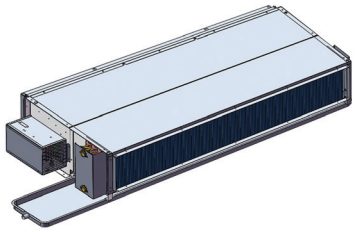
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHC



iFCHC(3R+2)-P-AECM

Product range: iFCHC(3R+2)-P~-AECM Hydronic Ducted 4-pipe Unit with 3-row Cooling and 2-row Heating Coils and EC motor

iFCHC(3R+2)-[Size]-P~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			4-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	240	330	448	511	627	860	997	1138	1647	2196
			M		189	299	378	390	539	641	873	1082	1573	2097
			L		144	220	206	299	449	513	710	910	1149	1532
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	7970	10718	13656	15876	18452	27523	29195	33057	46576	56054
			M		6650	9925	11970	12905	16503	22055	26487	32056	45004	54261
			L		5359	7883	7526	10511	14264	18592	22631	27921	35420	42421
		Sensible Cooling Capacity	H		5384	7245	9357	10777	12407	18631	20023	22652	31930	38252
			M		4438	6660	8106	8637	11026	14676	17984	21889	30807	36969
			L		3542	5227	4957	6967	9490	12306	15265	18839	23807	28392
	Heating	Heating Capacity	H	Btu/Hr	11215	15130	19980	22802	27497	38488	43877	49297	67673	87017
			M		9387	14107	17590	18576	24628	30809	39448	47552	65258	83468
			L		7568	11163	10882	15037	21329	25772	33494	41663	51225	66002
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		26	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.57	2.12	2.7	3.14	3.64	5.44	5.77	6.53	9.2	11.07
			M		1.31	1.96	2.36	2.55	3.26	4.36	5.23	6.33	8.89	10.72
			L		1.06	1.56	1.49	2.08	2.82	3.67	4.47	5.51	6.99	8.38
		Cooling Pressure Drop	H	ft.wg	6.4	12.0	6.7	9.5	13.3	16.3	6.3	8.3	17.9	26.8
			M		4.6	10.4	5.3	6.5	10.9	10.9	5.3	7.8	16.8	25.3
			L		3.1	6.9	2.3	4.5	8.4	8.0	4.0	6.1	10.9	16.2
		Heating Water Flow Rate	H	GPM	0.56	0.75	1	1.14	1.37	1.92	2.19	2.46	3.37	4.33
			M		0.47	0.7	0.88	0.93	1.23	1.53	1.97	2.37	3.25	4.16
			L		0.38	0.56	0.54	0.75	1.06	1.28	1.67	2.08	2.55	3.29
		Heating Pressure Drop	H	ft.wg	0.5	0.9	1.7	0.7	1.1	2.7	1.7	2.2	1.5	2.5
			M		0.3	0.8	1.3	0.5	0.9	1.8	1.4	2.0	1.4	2.3
			L		0.2	0.5	0.6	0.4	0.7	1.3	1.0	1.6	0.9	1.5
		Chilled water content		US.gal	0.19	0.23	0.27	0.31	0.35	0.51	0.55	0.59	0.68	0.75
		Hot water content			0.13	0.15	0.18	0.21	0.23	0.34	0.36	0.39	0.45	0.50
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

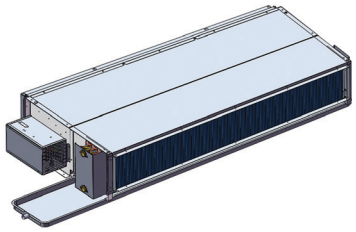
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHC



iFCHC(4R+1)-P-AECM

Product range: iFCHC(4R+1)-P~-AECM Hydronic Ducted 4-pipe Unit with 4-row Cooling and 1-row Heating Coils and EC motor

iFCHC(4R+1)-[Size]-P~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			4-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	240	330	448	511	627	860	997	1138	1647	2196
			M		189	299	378	390	539	641	873	1082	1573	2097
			L		144	220	206	299	449	513	710	910	1149	1532
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	6997	9147	12180	14988	17259	23512	28649	32702	44211	52888
			M		5866	8490	10723	12165	15464	18725	25893	31483	42748	51098
			L		4737	6683	6731	9922	13407	15704	22254	27466	33570	40139
		Sensible Cooling Capacity	H		4926	6426	8568	13885	12169	16554	20166	23023	31478	37728
			M		4065	5934	7472	11080	10786	12947	18040	22092	30394	36397
			L		3261	4602	4555	8981	9285	10805	15388	19040	23446	28126
	Heating	Heating Capacity	H	Btu/Hr	6969	9284	12145	13929	16475	23271	26370	29576	39963	51265
			M		5816	8651	10693	11265	14694	18595	23825	28538	38779	49337
			L		4708	6820	6728	9115	12781	15636	20385	24776	30388	38922
		Max. Electric Heater Capacity@220V		kW	1.5	2	3	3	3	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		26	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	0.93	1.22	1.62	2	2.3	3.13	3.82	4.36	5.89	7.05
			M		0.78	1.13	1.43	1.62	2.06	2.49	3.45	4.19	5.7	6.81
			L		0.63	0.89	0.9	1.32	1.79	2.09	2.97	3.66	4.47	5.35
		Cooling Pressure Drop	H	ft.wg	3.32	5.9	10.8	5.57	7.75	8	11.97	16.03	10.54	15.77
			M		2.42	5.16	8.58	3.83	6.36	5.31	9.98	14.97	9.92	14.82
			L		1.65	3.35	3.71	2.65	4.92	3.87	7.6	11.71	6.42	9.6
		Heating Water Flow Rate	H	GPM	0.35	0.46	0.61	0.69	0.82	1.16	1.31	1.47	1.99	2.55
			M		0.29	0.43	0.53	0.56	0.73	0.93	1.19	1.42	1.93	2.46
			L		0.23	0.34	0.34	0.45	0.64	0.78	1.02	1.23	1.51	1.94
		Heating Pressure Drop	H	ft.wg	0.67	1.27	2.29	3.24	0.68	1.7	2.26	2.97	0.46	0.78
			M		0.48	1.11	1.82	2.21	0.55	1.13	1.88	2.79	0.44	0.73
			L		0.33	0.73	0.79	1.51	0.43	0.83	1.42	2.16	0.28	0.47
		Chilled water content		US.gal	0.25	0.31	0.36	0.41	0.46	0.68	0.73	0.78	0.91	1.00
		Hot water content			0.06	0.08	0.09	0.10	0.12	0.17	0.18	0.20	0.23	0.25
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

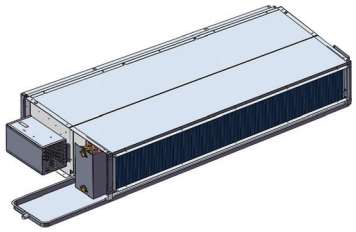
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHC



iFCHC(4R+2)-P-AECM

Product range: iFCHC(4R+2)-P~-AECM Hydronic Ducted 4-pipe Unit with 4-row Cooling and /2-row Heating Coils and EC motor

iFCHC(4R+2)-[Size]-P~-AECM					200	300	400	500	600	800	1000	1200	1400	1600
Unit Configuration		Configuration			4-pipe									
		Number Of Fan Blowers			Single		Twin			Three		Four	Three	Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60									
		Operation Control			~S: Complete controller with VAV&VWV control logic									
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	CFM	224	313	421	484	596	809	957	1094	1593	2124
			M		173	284	352	360	511	591	837	1043	1524	2032
			L		133	210	186	279	430	480	686	881	1116	1488
		ESP	H	in.wg	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			M		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			L		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Cooling	Cooling Capacity	H	Btu/Hr	6682	8753	11666	14327	16621	22337	27801	31727	43040	51385
			M		5459	8161	10195	11435	14792	17612	25223	30508	41577	49950
			L		4433	6458	6198	9412	12983	14927	21551	26940	32954	39497
		Sensible Cooling Capacity	H		4682	6136	8191	13232	11686	15691	19532	22282	30611	36618
			M		3777	5678	7071	10400	10286	12161	17543	21329	29527	35509
			L		3034	4442	4181	8481	8985	10250	14891	18658	22985	27623
	Heating	Heating Capacity	H	Btu/Hr	10663	14561	19093	21888	26424	36726	42425	47988	66224	84651
			M		8806	13520	16656	17339	23475	28831	38276	46243	63809	81693
			L		7111	10637	10134	14200	20583	24413	32675	40703	50157	64694
	Sound	Sound Pressure Level (outlet)		dB(A)	48/47/43	50/49/46	52/50/44	52/51/46	54/52/49	53/52/47	56/54/50	58/55/52	58/54/50	59/57/55
		Sound Pressure Level(Inlet + Radiated)			50/49/45	52/51/48	54/52/46	54/53/48	56/54/51	55/54/49	58/56/52	60/57/54	60/56/52	61/59/57
		Sound Power Level (outlet)			57/56/52	59/58/55	61/59/53	61/60/55	63/61/58	62/61/56	65/63/59	67/64/61	67/63/59	68/66/64
		Sound Power Level(Inlet + Radiated)			59/58/54	61/60/57	63/61/55	63/62/57	65/63/60	64/63/58	67/65/61	69/66/63	69/65/61	70/68/66
	Electrical	Fan Motor Power	H	W	53	63	83	96	102	150	180	224	363	380
			M		43	52	58	68	84	128	147	190	286	310
			L		26	31	35	49	62	84	94	113	170	190
	Hydraulic	Cooling Water Flow Rate	H	GPM	0.9	1.2	1.6	1.9	2.2	3.0	3.7	4.2	5.73	6.85
			M		0.7	1.1	1.4	1.5	2.0	2.4	3.4	4.1	5.54	6.66
			L		0.6	0.9	0.8	1.3	1.7	2.0	2.9	3.6	4.39	5.26
		Cooling Pressure Drop	H	ft.wg	3.1	5.5	10.0	5.1	7.2	7.3	11.3	15.2	10.0	15.0
			M		2.1	4.8	7.8	3.4	5.9	4.8	9.5	14.2	9.4	14.2
			L		1.5	3.2	3.2	2.4	4.6	3.5	7.2	11.3	6.2	9.3
		Heating Water Flow Rate	H	GPM	0.5	0.7	1.0	1.1	1.3	1.8	2.1	2.4	3.3	4.22
			M		0.4	0.7	0.8	0.9	1.2	1.4	1.9	2.3	3.18	4.07
			L		0.4	0.5	0.5	0.7	1.0	1.2	1.6	2.0	2.5	3.22
		Heating Pressure Drop	H	ft.wg	0.4	0.8	1.5	0.7	1.1	2.5	1.6	2.1	1.4	2.4
			M		0.3	0.7	1.2	0.5	0.9	1.6	1.3	1.9	1.3	2.2
			L		0.2	0.5	0.5	0.3	0.7	1.2	1.0	1.5	0.8	1.5
		Chilled water content		US.gal	0.253	0.306	0.359	0.412	0.465	0.676	0.729	0.781	0.912	1.010
		Hot water content			0.127	0.153	0.180	0.206	0.232	0.338	0.364	0.391	0.456	0.505
Construction and Packing Data		Water	Type		Socket (Threaded Female)									
		Connections	In	in	NPT3/4"									
			Out											
		Condensate Drainage Connection			Dia. 3/4"									
		Dimensions	L	inch	33 11/16	37 5/8	41 9/16	45 1/2	49 7/16	65 3/16	69 1/8	74 5/8	69 1/8	79 5/16
			W		27 7/16									
			H		10								11 15/16	
		Net Weight		lbs	37	51	53	62	68	79	95	99	112	132

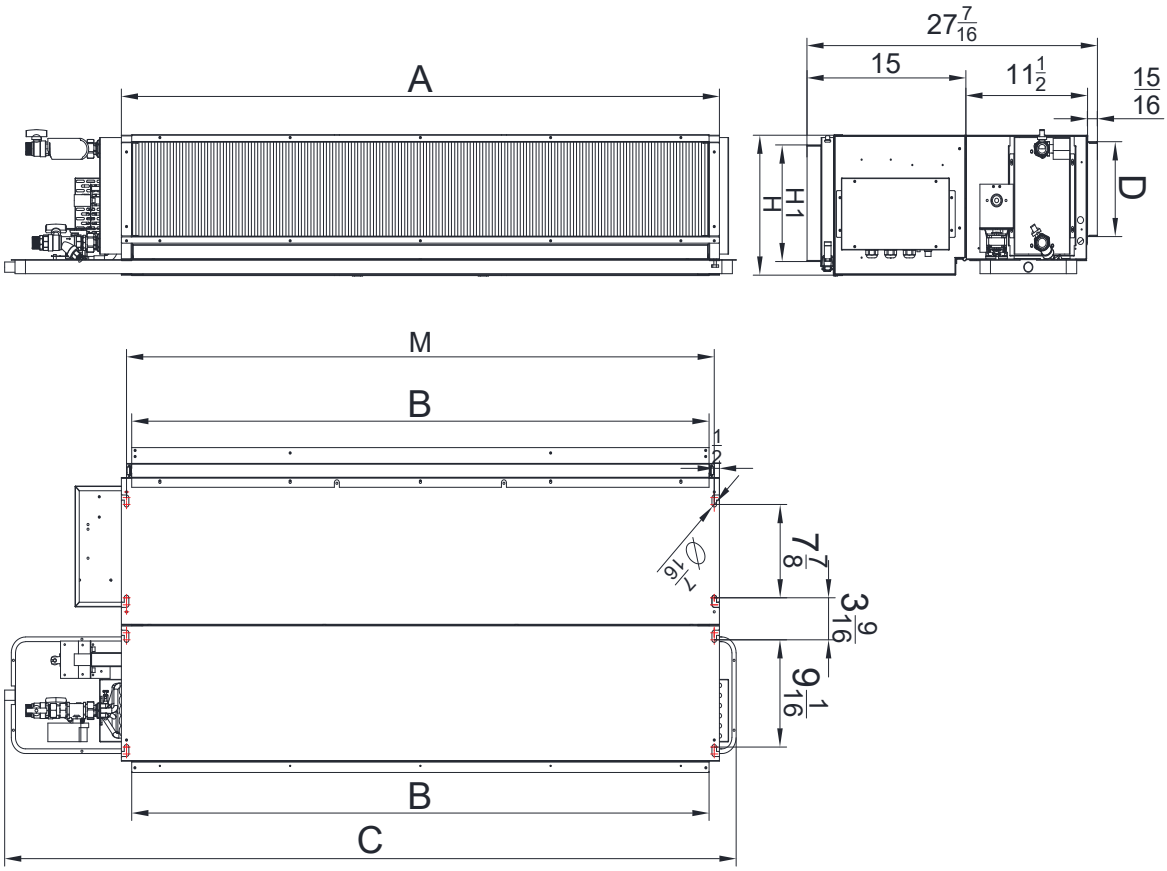
Testing conditions:

a. Cooling mode
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

Standard Unit Dimension

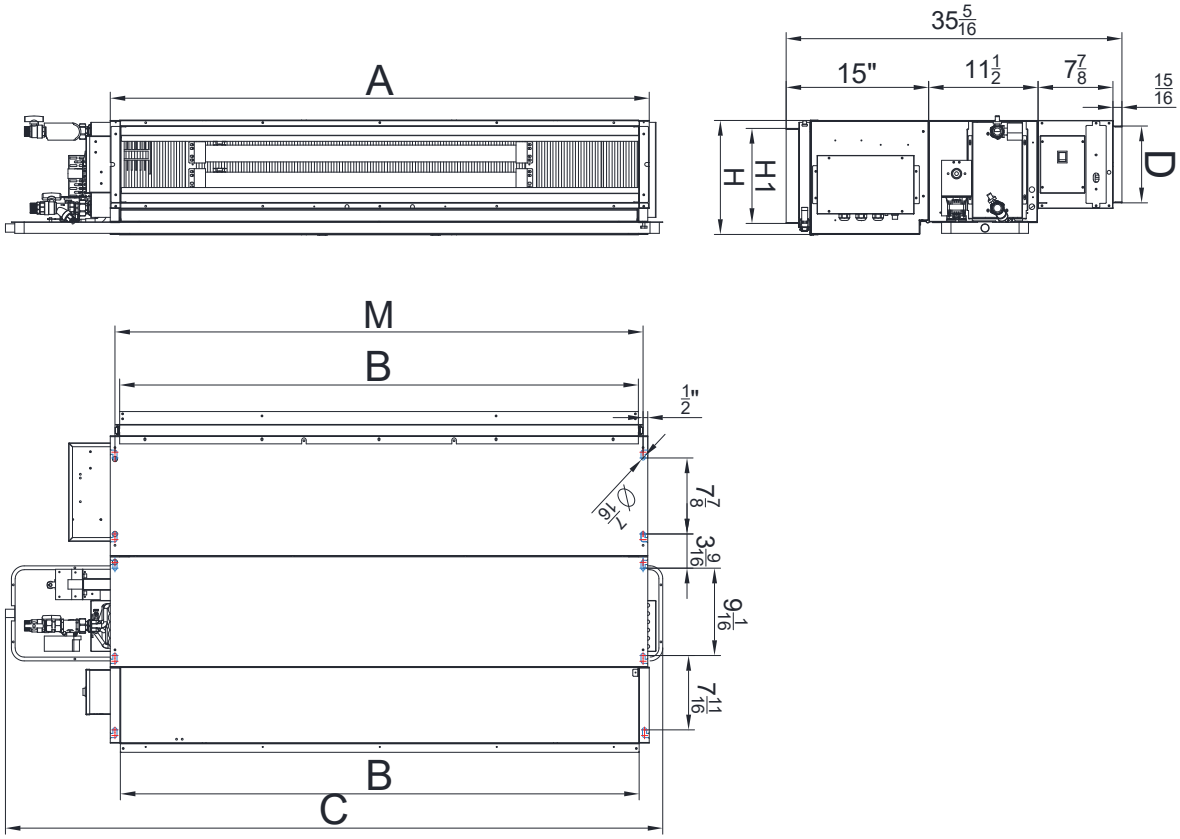


Model	A	B	C	M	H	H1	D
iFCHC-200	21 1/16”	19 1/8”	33 11/16”	20 1/16”	10”	7 7/8”	6”
iFCHC-300	25”	23”	37 5/8”	24”			
iFCHC-400	28 15/16”	27”	41 9/16”	27 15/16”			
iFCHC-500	32 7/8”	30 7/8”	45 1/2”	31 7/8”			
iFCHC-600	36 13/16”	34 13/16”	49 7/16”	35 13/16”			
iFCHC-800	52 9/16”	50 9/16”	65 3/16”	51 9/16”			
iFCHC-1000	56 1/2”	54 1/2”	69 1/8”	55 1/2”			
iFCHC-1200	62”	60 1/16”	74 5/8”	61”			
iFCHC-1400	56 1/2”	54 1/2”	69 1/8”	55 1/2”	11 15/16”	9 13/16”	8”
iFCHC-1600	66 1/2”	64 3/4”	79 5/16”	65 3/4”			

All dimensions are approximate and within 1/16 of an inch of those indicated.

Technical Data

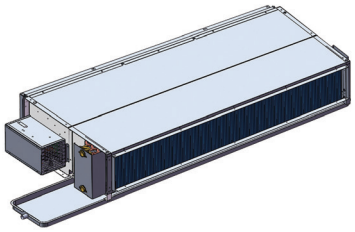
Unit with E-heater modular dimension



Model	A	B	C	M	H	H1	D
iFCHC-200	21 1/16”	19 1/8”	33 11/16”	20 1/16”	10”	7 7/8”	6”
iFCHC-300	25”	23”	37 5/8”	24”			
iFCHC-400	28 15/16”	27”	41 9/16”	27 15/16”			
iFCHC-500	32 7/8”	30 7/8”	45 1/2”	31 7/8”			
iFCHC-600	36 13/16”	34 13/16”	49 7/16”	35 13/16”			
iFCHC-800	52 9/16”	50 9/16”	65 3/16”	51 9/16”			
iFCHC-1000	56 1/2”	54 1/2”	69 1/8”	55 1/2”			
iFCHC-1200	62”	60 1/16”	74 5/8”	61”			
iFCHC-1400	56 1/2”	54 1/2”	69 1/8”	55 1/2”	11 15/16”	9 13/16”	8”
iFCHC-1600	66 1/2”	64 3/4”	79 5/16”	65 3/4”			

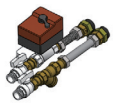
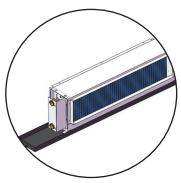
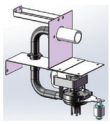
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Technical Data



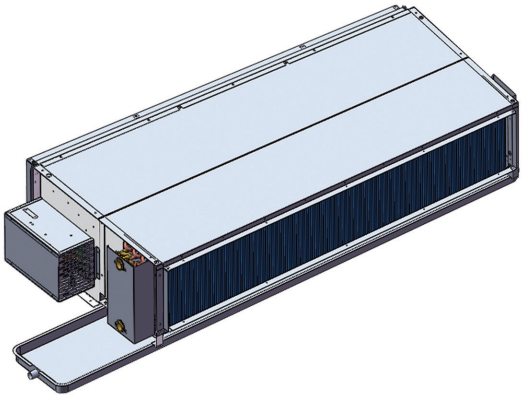
iFCHC

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Eeletric heater modular		BCP25-EH-SSR-220V-iFCHC-001	Electrical heater module with SSR maximum 1.5kW 220V for iFCHC-200
		BCP25-EH-SSR-220V-iFCHC-002	Electrical heater module with SSR maximum 2.0kW 220V for iFCHC-300
		BCP25-EH-SSR-220V-iFCHC-003	Electrical heater module with SSR maximum 2.5kW 220V for iFCHC-400
		BCP25-EH-SSR-220V-iFCHC-004	Electrical heater module with SSR maximum 3.0kW 220V for iFCHC-500
		BCP25-EH-SSR-220V-iFCHC-005	Electrical heater module with SSR maximum 3.0kW 220V for iFCHC-600
		BCP25-EH-SSR-220V-iFCHC-006	Electrical heater module with SSR maximum 4.0kW 220V for iFCHC-800
		BCP25-EH-SSR-220V-iFCHC-007	Electrical heater module with SSR maximum 5.0kW 220V for iFCHC-1000
		BCP25-EH-SSR-220V-iFCHC-008	Electrical heater module with SSR maximum 6.0kW 220V for iFCHC-1200
		BCP25-EH-SSR-220V-iFCHC-009	Electrical heater module with SSR maximum 6.0kW 220V for iFCHC-1400
		BCP25-EH-SSR-220V-iFCHC-010	Electrical heater module with SSR maximum 6.0kW 220V for iFCHC-1600
		BCP25-EH-CR-220V-iFCHC-001	Electrical heater module with Contact Relay maximum 1.5kW 220V for iFCHC-200
		BCP25-EH-CR-220V-iFCHC-002	Electrical heater module with Contact Relay maximum 2.0kW 220V for iFCHC-300
		BCP25-EH-CR-220V-iFCHC-003	Electrical heater module with Contact Relay maximum 3.0kW 220V for iFCHC-400
		BCP25-EH-CR-220V-iFCHC-004	Electrical heater module with Contact Relay maximum 3.0kW 220V for iFCHC-500
		BCP25-EH-CR-220V-iFCHC-005	Electrical heater module with Contact Relay maximum 3.0kW 220V for iFCHC-600
		BCP25-EH-CR-220V-iFCHC-006	Electrical heater module with Contact Relay maximum 4.0kW 220V for iFCHC-800
		BCP25-EH-CR-220V-iFCHC-007	Electrical heater module with Contact Relay maximum 5.0kW 220V for iFCHC-1000
		BCP25-EH-CR-220V-iFCHC-008	Electrical heater module with Contact Relay maximum 6kW 220V for iFCHC-1200
		BCP25-EH-CR-220V-iFCHC-009	Electrical heater module with Contact Relay maximum 6kW 220V for iFCHC-1400
		BCP25-EH-CR-220V-iFCHC-010	Electrical heater module with Contact Relay maximum 6kW 220V for iFCHC-1600
2.G4 filter		BCP25-FILTER-iFCHC-G4-001	Merv 8 or G4 filter for for iFCHC-200
		BCP25-FILTER-iFCHC-G4-002	Merv 8 or G4 filter for for iFCHC-300
		BCP25-FILTER-iFCHC-G4-003	Merv 8 or G4 filter for for iFCHC-400
		BCP25-FILTER-iFCHC-G4-004	Merv 8 or G4 filter for for iFCHC-500
		BCP25-FILTER-iFCHC-G4-005	Merv 8 or G4 filter for for iFCHC-600
		BCP25-FILTER-iFCHC-G4-006	Merv 8 or G4 filter for for iFCHC-800
		BCP25-FILTER-iFCHC-G4-007	Merv 8 or G4 filter for for iFCHC-1000
		BCP25-FILTER-iFCHC-G4-008	Merv 8 or G4 filter for for iFCHC-1200
		BCP25-FILTER-iFCHC-G4-009	Merv 8 or G4 filter for for iFCHC-1400
		BCP25-FILTER-iFCHC-G4-010	Merv 8 or G4 filter for for iFCHC-1600
3.Drain pan		BCP-SSDP-iFCHC-001	Stainless steel drain-pan for iFCHC-200
		BCP-SSDP-iFCHC-002	Stainless steel drain-pan for iFCHC-300
		BCP-SSDP-iFCHC-003	Stainless steel drain-pan for iFCHC-400
		BCP-SSDP-iFCHC-004	Stainless steel drain-pan for iFCHC-500
		BCP-SSDP-iFCHC-005	Stainless steel drain-pan for iFCHC-600
		BCP-SSDP-iFCHC-006	Stainless steel drain-pan for iFCHC-800
		BCP-SSDP-iFCHC-007	Stainless steel drain-pan for iFCHC-1000
		BCP-SSDP-iFCHC-008	Stainless steel drain-pan for iFCHC-1200
		BCP-SSDP-iFCHC-009	Stainless steel drain-pan for iFCHC-1400
		BCP-SSDP-iFCHC-010	Stainless steel drain-pan for iFCHC-1600
4.Valve kit		BCP25-RCS-VALVE-iFCHC-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHC-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHC-005	24VAC 3/4" Motorized 2-way on/off ball valve kit
		BCP25-RCS-VALVE-iFCHC-006	24VAC 3/4" Motorized 3-way on/off ball valve kit
5.2-Row coil module		BCP-Coil(L2)-iFCHC-01	2-Row coil module for iFCHC-200
		BCP-Coil(L2)-iFCHC-02	2-Row coil module for iFCHC-300
		BCP-Coil(L2)-iFCHC-03	2-Row coil module for iFCHC-400
		BCP-Coil(L2)-iFCHC-04	2-Row coil module for iFCHC-500
		BCP-Coil(L2)-iFCHC-05	2-Row coil module for iFCHC-600
		BCP-Coil(L2)-iFCHC-06	2-Row coil module for iFCHC-800
		BCP-Coil(L2)-iFCHC-07	2-Row coil module for iFCHC-1000
		BCP-Coil(L2)-iFCHC-08	2-Row coil module for iFCHC-1200
		BCP-Coil(L2)-iFCHC-09	2-Row coil module for iFCHC-1400
		BCP-Coil(L2)-iFCHC-10	2-Row coil module for iFCHC-1600
6.Pump kit		BCP25-PUMP-iFCHC-001	220V pump kit
		BCP25-PUMP-iFCHC-002	115V pump kit

Blow through high ESP ductable unit

iFCHHC-AECM



Easily adaptable for concealed or above-ceiling mounting, the iFCHHC compact fan coil units save floor space, making it an ideal choice for use in new construction and retrofit applications. The design flexibility allows the unit to be customized to meet a variety of space requirements. The units are designed for easy installation and service.

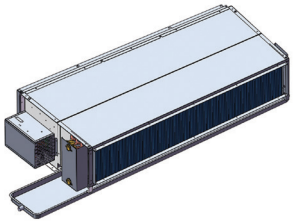
» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» Maximum ESP arrived 0.5 in.wg ;
» Special grade GI steel with Al + Zn coating known as 'Galvalume'
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCHHC-400 - VX -S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
400~2000	Unit Sizes
iFCHC	High ESP horizontal ceiling concealed unit with Plenum & filter

Technical Data

iFCHHC



iFCHHC(3R)-V-AECM

Product range: iFCHHC(3R)-V~-AECM Hydronic Ducted 2-pipe Unit with 3-row Coil and EC motor

iFCHHC(3R)-[Size]-V~-AECM					400	500	600	800	1000	1400	1600	2000
Unit Configuration		Configuration			2-pipe							
		Number Of Fan Blowers			Single		Twin					Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60							
		Operation Control			~S: Complete controller with VAV&VWV control logic							
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat							
Performance Data	Air	Air Flow	H	CFM	375	472	663	840	1076	1366	1585	2148
			M		267	355	513	724	755	1056	1204	1734
			L		179	209	288	340	366	555	819	1008
		ESP	H	in.wg	0.32	0.32	0.48	0.48	0.48	0.48	0.48	0.48
			M		0.32	0.32	0.48	0.48	0.48	0.48	0.48	0.48
			L		0.24	0.24	0.28	0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	Btu/Hr	11197	14271	20025	25155	31120	39274	44785	57426
			M		8582	11366	16534	22356	23715	32333	36486	48659
			L		6359	7432	10398	12342	13113	19476	27029	32217
		Sensible Cooling Capacity	H		7550	9537	13424	16940	20757	26366	30278	39524
			M		5711	7528	10947	14892	15646	21521	24374	33055
			L		4148	4831	6716	8002	8666	12718	17696	21388
	Heating	Heating Capacity	H	Btu/Hr	17406	22184	31129	39105	48378	61053	69620	89271
			M		13342	17669	25702	34753	36866	50264	56719	75643
			L		9886	11553	16164	19186	20384	30276	42019	50083
		Max. Electric Heater Capacity@220V		kW	2	2.5	3	5	6	6	6	6
	Sound	Sound Pressure Level (Outlet)		dB(A)	54/50/45	56/53/43	56/54/47	58/56/47	56/52/45	59/57/47	60/58/56	64/62/52
		Sound Pressure Level (Inlet + Radiated)			57/53/48	59/56/46	59/57/50	61/59/50	59/55/48	62/60/50	63/61/59	67/65/55
		Sound Power Level (Outlet)			63/59/54	65/62/52	65/63/56	67/65/56	65/61/54	68/66/56	69/67/59	73/71/61
		Sound Power Level (Inlet + Radiated)			66/62/57	68/65/55	68/66/59	70/68/59	68/64/57	71/69/59	72/70/62	76/74/64
	Electrical	Fan Motor Power	H	W	152	202	195	281	310	413	477	637
			M		84	121	137	208	151	246	304	461
			L		32	34	62	65	70	72	108	142
		Fan Motor Running Current @ H		A	1.32	1.75	1.7	2.45	1.35	1.8	2.1	2.76
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.2	2.8	4.0	5.0	6.2	7.8	8.8	11.3
			M		1.7	2.2	3.3	4.4	4.7	6.4	7.2	9.6
			L		1.3	1.5	2.1	2.4	2.6	3.9	5.3	6.4
		Cooling Pressure Drop	H	ft.wg	4.9	8.2	8.7	25.1	7.9	13.5	9.6	8.9
			M		3.0	5.5	6.2	20.3	4.8	9.5	6.6	6.6
			L		1.8	2.5	2.7	7.0	1.7	3.8	3.9	3.1
		Heating Water Flow Rate	H	GPM	2.2	2.8	4.0	5.0	6.2	7.8	8.8	11.3
			M		1.7	2.2	3.3	4.4	4.7	6.4	7.2	9.6
			L		1.3	1.5	2.1	2.4	2.6	3.9	5.3	6.4
		Heating Pressure Drop	H	ft.wg	4.4	7.4	7.8	22.6	7.1	12.1	8.6	8.0
			M		2.7	4.9	5.6	18.3	4.4	8.6	6.0	5.9
			L		1.6	2.3	2.4	6.3	1.5	3.4	3.5	2.8
		water content		US.gal	0.29	0.34	0.49	0.46	0.64	0.76	0.88	1.00
Construction and Packing Data		Water	Type		Socket (Female Threaded)							
		Connections	In	inch	3/4"							
			Out									
		Condensate Drainage Connection										
		Dimensions	L	inch	41 9/16	45 1/2	53 3/8	53 3/8	57 5/16	65 3/16	73 1/16	87 3/16
			W		27 1/2"			30"				
			H		11 13/16			13 3/4				
		Net Weight		lbs	61.7	81.6	97	101.4	105.8	121.3	138.9	183

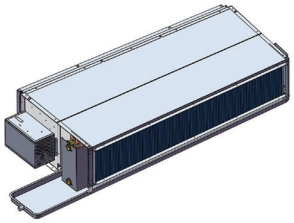
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

iFCHHC



iFCHHC(4R)-V-AECM

Product range: iFCHHC(4R)-V~-AECM Hydronic Ducted 2-pipe Unit with 4-row Coil and EC motor

iFCHHC(4R)-[Size]-V~-AECM					400	500	600	800	1000	1400	1600	2000
Unit Configuration		Configuration			2-pipe							
		Number Of Fan Blowers			Single		Twin					Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60							
		Operation Control			~S: Complete controller with VAV&VWV control logic							
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat							
Performance Data	Air	Air Flow	H	CFM	372	470	660	837	1073	1364	1583	3642
			M		264	352	509	720	751	1052	1201	2937
			L		177	205	282	335	359	545	810	1683
		Available pressure	H	in.wg	0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			M		0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			L		0.2	0.2	0.24	0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	11291	14281	19845	24915	31103	38590	45236	59829
			M		8691	11435	16306	22315	23557	31538	36706	50527
			L		6325	7450	10216	12048	13103	19010	26850	32660
		Sensible Cooling Capacity	H		7856	9886	13832	17352	21836	27202	31762	42127
			M		5953	7829	11182	15388	16231	21869	25344	35065
			L		4244	4980	6837	8101	8886	12840	18262	22104
	Sound	Sound Pressure Level (Outlet)		dB(A)	54/50/45	56/53/43	56/54/47	58/56/47	56/52/45	59/57/47	60/58/56	64/62/52
		Sound Pressure Level (Inlet + Radiated)			57/53/48	59/56/46	59/57/50	61/59/50	59/55/48	62/60/50	63/61/59	67/65/55
		Sound Power Level (Outlet)			63/59/54	65/62/52	65/63/56	67/65/56	65/61/54	68/66/56	69/67/59	73/71/61
		Sound Power Level (Inlet + Radiated)			66/62/57	68/65/55	68/66/59	70/68/59	68/64/57	71/69/59	72/70/62	76/74/64
	Electrical	Fan Motor Power	H	W	152	202	195	281	310	413	477	637
			M		84	121	137	208	151	246	304	461
			L		32	34	62	65	70	72	108	142
		Fan Motor Running Current @ H		A	1.32	1.75	1.7	2.45	1.35	1.8	2.1	2.76
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.5	1.9	2.6	3.3	4.1	5.1	6.0	8.0
			M		1.2	1.5	2.2	3.0	3.1	4.2	4.9	6.7
			L		1.5	1.0	1.4	1.6	1.8	2.5	3.6	4.4
		Cooling Pressure Drop	H	ft.wg	3.6	16.2	12.2	7.9	15.7	8.6	12.7	23.0
			M		2.2	10.9	8.6	6.5	9.5	6.0	8.7	17.0
			L		1.3	5.0	3.7	2.1	3.3	2.4	5.0	7.7
		Water Content		US.gal	0.38	0.45	0.65	0.62	0.86	1.01	1.17	1.33
Construction and Packing Data		Water Connections	Type		Socket (Female Threaded)							
			In	inch	3/4”							
			Out									
		Condensate Drainage Connection										
		Dimensions	L	inch	41 9/16	45 1/2	53 3/8	53 3/8	57 5/16	65 3/16	73 1/16	87 3/16
			W		27 1/2”			30”				
			H		11 13/16			13 3/4				
		Net Weight		lbs	61.7	81.6	97	101.4	105.8	121.3	138.9	183

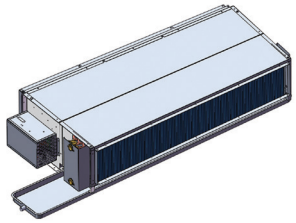
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCHHC



iFCHHC(3R+1)-P-AECM

Product range: iFCHHC(3R+1)-V~-AECM Hydronic Ducted 4-pipe Unit with 3-row Cooling and 1-row Heating Coils and EC motor

iFCHHC(3R+1)-[Size]-P~-AECM					400	500	600	800	1000	1400	1600	2000
Unit Configuration		Configuration			4-pipe							
		Number Of Fan Blowers			Single		Twin					Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60							
		Operation Control			~S: Complete controller with VAV&VWV control logic							
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat							
Performance Data	Air	Air Flow	H	CFM	372	470	660	837	1073	1364	1583	2142
			M		264	352	509	720	751	1052	1201	1728
			L		177	205	282	335	359	545	810	990
		Available pressure	H	in.wg	0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			M		0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			L		0.2	0.2	0.24	0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	11197	14271	20025	24961	31120	39274	44785	57426
			M		8582	11366	16360	22356	23398	31961	36093	48659
			L		6246	7432	10398	12070	12718	19027	26580	31756
		Sensible Cooling Capacity	H		7550	9537	13424	16793	20757	26366	30278	39524
			M		5711	7528	10829	14892	15416	21264	24105	33055
			L		4072	4831	6716	7840	8396	12449	17394	21048
	Heating	Heating Capacity	H	Btu/Hr	10837	13490	18896	23911	29185	36139	42007	54565
			M		8307	10745	15418	21156	22279	29753	33974	46142
			L		6045	7026	9619	11481	12271	17508	24873	30128
	Sound	Sound Pressure Level (Outlet)		dB(A)	54/50/45	56/53/43	56/54/47	58/56/47	56/52/45	59/57/47	60/58/56	64/62/52
		Sound Pressure Level (Inlet + Radiated)			57/53/48	59/56/46	59/57/50	61/59/50	59/55/48	62/60/50	63/61/59	67/65/55
		Sound Power Level (Outlet)			63/59/54	65/62/52	65/63/56	67/65/56	65/61/54	68/66/56	69/67/59	73/71/61
		Sound Power Level (Inlet + Radiated)			66/62/57	68/65/55	68/66/59	70/68/59	68/64/57	71/69/59	72/70/62	76/74/64
	Electrical	Fan Motor Power	H	W	152	202	195	281	310	413	477	637
			M		84	121	137	208	151	246	304	461
			L		32	34	62	65	70	72	108	142
		Fan Motor Running Current @ H		A	1.32	1.76	1.7	2.44	2.7	3.59	4.15	5.54
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.2	2.8	4.0	4.9	6.2	7.8	8.8	11.3
			M		1.7	2.2	3.2	4.4	4.6	6.3	7.1	9.6
			L		1.2	1.5	2.1	2.4	2.5	3.8	5.3	6.3
		Cooling Pressure Drop	H	ft.wg	4.9	8.2	8.7	24.8	7.9	13.5	9.6	8.9
			M		3.0	5.5	6.1	20.3	4.7	9.3	6.5	6.6
			L		1.7	2.5	2.7	6.7	1.6	3.7	3.7	3.1
		Heating Water Flow Rate	H	GPM	0.5	0.7	0.9	1.2	1.5	1.8	2.1	2.7
			M		0.4	0.5	0.8	1.1	1.1	1.5	1.7	2.3
			L		0.3	0.4	0.5	0.6	0.6	0.9	1.2	1.5
		Heating Pressure Drop	H	ft.wg	2.1	3.5	1.2	2.3	3.4	1.8	2.7	4.8
			M		1.3	2.3	0.8	1.8	2.1	1.3	1.9	3.6
			L		0.7	1.1	0.4	0.6	0.7	0.5	1.1	1.7
		Cooling water content		US.gal	0.29	0.34	0.49	0.46	0.64	0.76	0.88	1.00
		Heating water content			0.10	0.11	0.16	0.15	0.21	0.25	0.29	0.33
Construction and Packing Data		Water Connections	Type		Socket (Female Threaded)							
			In	inch	3/4”							
			Out									
		Condensate Drainage Connection										
		Dimensions	L	inch	41 9/16	45 1/2	53 3/8	53 3/8	57 5/16	65 3/16	73 1/16	87 3/16
			W		27 1/2”			30”				
			H		11 13/16			13 3/4				
		Net Weight		lbs	61.7	81.6	97	101.4	105.8	121.3	138.9	183

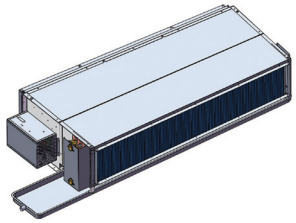
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

iFCHHC



iFCHHC(4R+1)-P-AECM

Product range: iFCHHC(4R+1)-V~-AECM Hydronic Ducted 4-pipe Unit with 4-row Cooling and 1-row Heating Coils and E

iFCHHC(4R+1)-[Size]-P~-AECM					400	500	600	800	1000	1400	1600	2000
Unit Configuration		Configuration			4-pipe							
		Number Of Fan Blowers			Single		Twin					Four
		Power Supply (V/Ph/Hz)			115 / 1 / 60 or 220 / 1 / 60							
		Operation Control			~S: Complete controller with VAV&VWV control logic							
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat							
Performance Data	Air	Air Flow	H	CFM	353	454	607	786	1025	1326	1553	2057
			M		247	338	472	680	686	997	1148	1633
			L		152	193	258	312	321	485	760	893
		Available pressure	H	in.wg	0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			M		0.28	0.28	0.44	0.44	0.44	0.44	0.44	0.44
			L		0.2	0.2	0.24	0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	10854	13930	18652	23748	29968	37757	44590	58083
			M		8184	11035	15317	21271	22017	30340	35312	48690
			L		5662	7128	9652	11505	11837	17185	25729	30454
		Sensible Cooling Capacity	H		7517	9618	12915	16446	21004	26589	31289	40843
			M		5594	7545	10489	14632	15140	21001	24339	33701
			L		3786	4781	6447	7765	8101	11626	17419	20571
	Heating	Heating Capacity	H	Btu/Hr	10395	13132	17726	22753	28220	35516	41639	52760
			M		7905	10351	14498	20318	20645	28382	32758	44198
			L		5366	6551	8954	10952	11265	15856	23545	27236
	Sound	Sound Pressure Level (Outlet)		dB(A)	54/50/45	56/53/43	56/54/47	58/56/47	56/52/45	59/57/47	60/58/56	64/62/52
		Sound Pressure Level (Inlet + Radiated)			57/53/48	59/56/46	59/57/50	61/59/50	59/55/48	62/60/50	63/61/59	67/65/55
		Sound Power Level (Outlet)			63/59/54	65/62/52	65/63/56	67/65/56	65/61/54	68/66/56	69/67/59	73/71/61
		Sound Power Level (Inlet + Radiated)			66/62/57	68/65/55	68/66/59	70/68/59	68/64/57	71/69/59	72/70/62	76/74/64
	Electrical	Fan Motor Power	H	W	152	202	195	281	310	413	477	637
			M		84	121	137	208	151	246	304	461
			L		32	34	62	65	70	72	108	142
		Fan Motor Running Current @ H		A	1.32	1.76	1.7	2.44	2.7	3.59	4.15	5.54
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.5	1.9	2.5	3.2	4.0	5.0	5.9	7.7
			M		1.1	1.5	2.0	2.8	2.9	4.0	4.7	6.5
			L		0.8	1.0	1.3	1.5	1.6	2.3	3.4	4.1
		Cooling Pressure Drop	H	ft.wg	3.3	15.5	10.9	7.3	14.7	8.3	12.4	21.8
			M		2.0	10.2	7.7	6.0	8.4	5.6	8.1	15.9
			L		1.0	4.6	3.3	2.0	2.8	2.0	4.6	6.8
		Heating Water Flow Rate	H	GPM	0.5	0.7	0.9	1.1	1.4	1.8	2.1	2.6
			M		0.4	0.5	0.7	1.0	1.0	1.4	1.6	2.2
			L		0.3	0.3	0.5	0.6	0.6	0.8	1.2	1.4
		Heating Pressure Drop	H	ft.wg	2.0	3.4	1.1	2.1	3.2	1.8	2.7	4.6
			M		1.2	2.2	0.7	1.7	1.8	1.2	1.7	3.3
			L		0.6	1.0	0.3	0.6	0.6	0.4	1.0	1.4
		Cooling water content		US.gal	0.38	0.45	0.65	0.62	0.86	1.01	1.17	1.33
		Heating water content			0.10	0.11	0.16	0.15	0.21	0.25	0.29	0.33
Construction and Packing Data		Water Connections	Type		Socket (Female Threaded)							
			In	inch	3/4”							
			Out									
		Condensate Drainage Connection										
		Dimensions	L	inch	41 9/16	45 1/2	53 3/8	53 3/8	57 5/16	65 3/16	73 1/16	87 3/16
			W		27 1/2”			30”				
			H		11 13/16			13 3/4				
		Net Weight		lbs	61.7	81.6	97	101.4	105.8	121.3	138.9	183

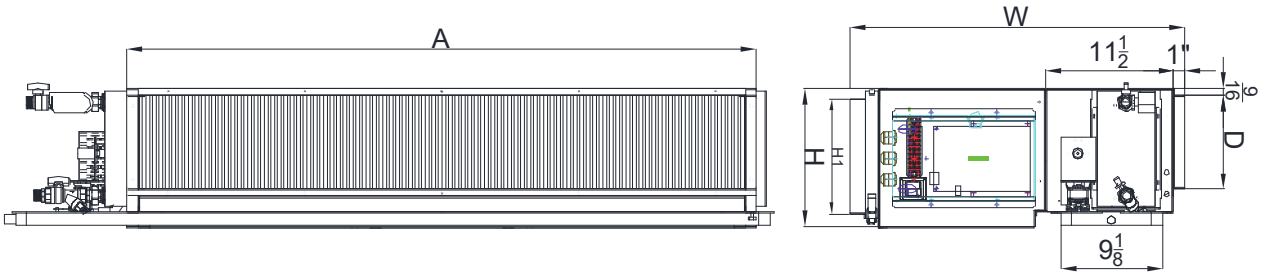
Testing conditions:

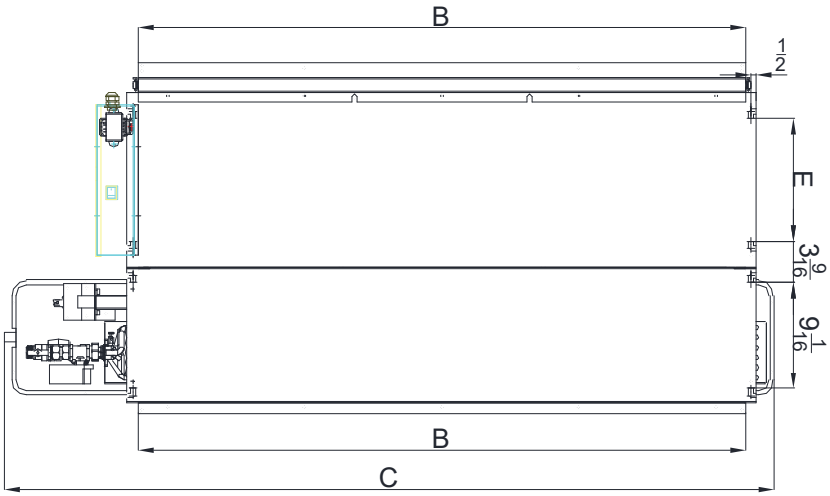
a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

Dimensional drawings



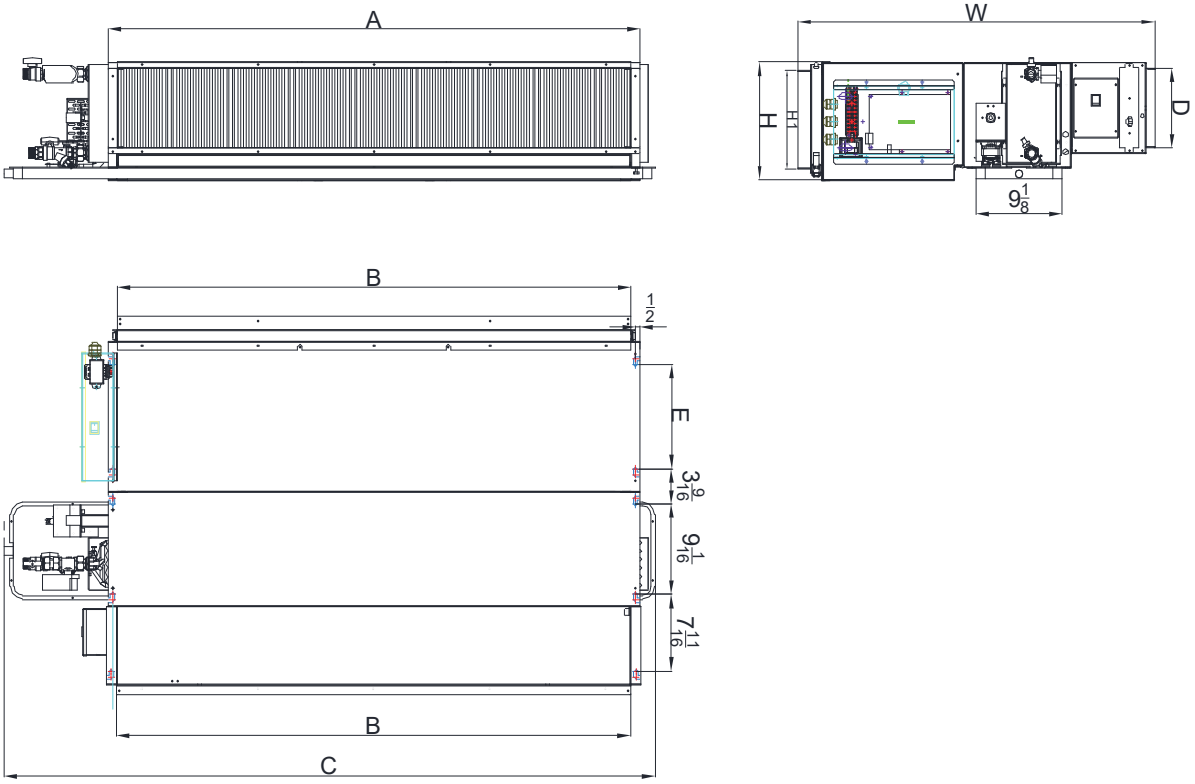


Model	A	B	C	W	H	H1	D	E
iFCHHC-400	25”	23 1/8”	41 5/8”	27 1/2”	11 13/16”	10”	8”	8”
iFCHHC-500	28 7/8”	27”	45 1/2”					
iFCHHC-600	36 13/16”	34 13/16”	53 3/8”					
iFCHHC-800	36 13/16”	34 13/16”	53 3/8”	30”	13 3/4”	12”	10”	10 1/2”
iFCHHC-1000	40 11/16”	38 13/16”	57 5/16”					
iFCHHC-1400	48 5/8”	46 11/16”	65 3/16”					
iFCHHC-1600	56 1/2”	54 1/2”	73 1/16”					
iFCHHC-2000	70 11/16”	68 11/16”	87 3/16”					

All dimensions are approximate and within 1/16 of an inch of those indicated.

Technical Data

Unit with E-heater modular dimension

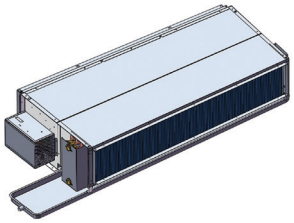


Model	A	B	C	W	H	H1	D	E
iFCHHC-400	25”	23 1/8”	41 5/8”	35 3/8”	11 13/16”	10”	8”	8”
iFCHHC-500	28 7/8”	27”	45 1/2”					
iFCHHC-600	36 13/16”	34 13/16”	53 3/8”					
iFCHHC-800	36 13/16”	34 13/16”	53 3/8”	37 7/8”	13 3/4”	12”	10”	10 1/2”
iFCHHC-1000	40 11/16”	38 13/16”	57 5/16”					
iFCHHC-1400	48 5/8”	46 11/16”	65 3/16”					
iFCHHC-1600	56 1/2”	54 1/2”	73 1/16”					
iFCHHC-2000	70 11/16”	68 11/16”	87 3/16”					

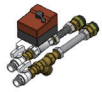
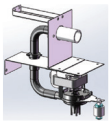
All dimensions are approximate and within 1/16 of an inch of those indicated.

Technical Data

● iFCHHC

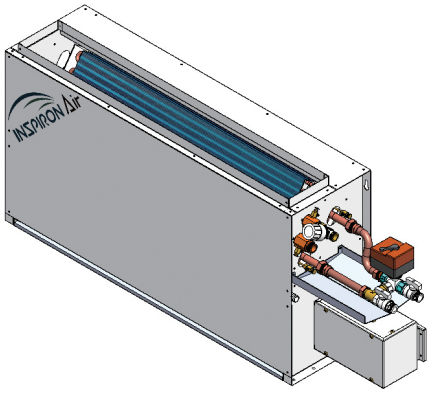


Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Eeletric heater modular		BCP25-EH-SSR-iFCHHC-001	Electrical heater module with SSR and maximum 2.0kw for iFCHHC-400
		BCP25-EH-SSR-iFCHHC-002	Electrical heater module with SSR and maximum 2.5kw for iFCHHC-500
		BCP25-EH-SSR-iFCHHC-003	Electrical heater module with SSR and maximum 3.0kw for iFCHHC-600
		BCP25-EH-SSR-iFCHHC-004	Electrical heater module with SSR and maximum 5.0kw for iFCHHC-800
		BCP25-EH-SSR-iFCHHC-005	Electrical heater module with SSR and maximum 6.0kw for iFCHHC-1000
		BCP25-EH-SSR-iFCHHC-006	Electrical heater module with SSR and maximum 6.0kw for iFCHHC-1400
		BCP25-EH-SSR-iFCHHC-007	Electrical heater module with SSR and maximum 6.0kw for iFCHHC-1600
		BCP25-EH-SSR-iFCHHC-008	Electrical heater module with SSR and maximum 6.0kw for iFCHHC-2000
		BCP25-EH-CR-iFCHHC-001	Electrical heater module with Contact Relay and maximum 2.0kw for iFCHHC-400
		BCP25-EH-CR-iFCHHC-002	Electrical heater module with Contact Relay and maximum 2.5kw for iFCHHC-500
		BCP25-EH-CR-iFCHHC-003	Electrical heater module with Contact Relay and maximum 3.0kw for iFCHHC-600
		BCP25-EH-CR-iFCHHC-004	Electrical heater module with Contact Relay and maximum 5.0kw for iFCHHC-800
		BCP25-EH-CR-iFCHHC-005	Electrical heater module with Contact Relay and maximum 6.0kw for iFCHHC-1000
		BCP25-EH-CR-iFCHHC-006	Electrical heater module with Contact Relay and maximum 6.0kw for iFCHHC-1400
		BCP25-EH-CR-iFCHHC-007	Electrical heater module with Contact Relay and maximum 6.0kw for iFCHHC-1600
		BCP25-EH-CR-iFCHHC-008	Electrical heater module with Contact Relay and maximum 6.0kw for iFCHHC-2000
2.Merv 8		AA14-M8-iFCHHC-001	Merv 8 or G4 filter for for iFCHHC-400
		AA14-M8-iFCHHC-002	Merv 8 or G4 filter for for iFCHHC-500
		AA14-M8-iFCHHC-003	Merv 8 or G4 filter for for iFCHHC-600
		AA14-M8-iFCHHC-004	Merv 8 or G4 filter for for iFCHHC-800
		AA14-M8-iFCHHC-005	Merv 8 or G4 filter for for iFCHHC-1000
		AA14-M8-iFCHHC-006	Merv 8 or G4 filter for for iFCHHC-1400
		AA14-M8-iFCHHC-007	Merv 8 or G4 filter for for iFCHHC-1600
		AA14-M8-iFCHHC-008	Merv 8 or G4 filter for for iFCHHC-2000
3.Drain pan		BCP-SSDP-iFCHHC-001	Stainless steel drain-pan for iFCHHC-400
		BCP-SSDP-iFCHHC-002	Stainless steel drain-pan for iFCHHC-500
		BCP-SSDP-iFCHHC-003	Stainless steel drain-pan for iFCHHC-600
		BCP-SSDP-iFCHHC-004	Stainless steel drain-pan for iFCHHC-800
		BCP-SSDP-iFCHHC-005	Stainless steel drain-pan for iFCHHC-1000
		BCP-SSDP-iFCHHC-006	Stainless steel drain-pan for iFCHHC-1400
		BCP-SSDP-iFCHHC-007	Stainless steel drain-pan for iFCHHC-1600
		BCP-SSDP-iFCHHC-008	Stainless steel drain-pan for iFCHHC-2000
4.Valve kit		BCP25-RCS-VALVE-iFCHHC-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHHC-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHHC-005	24VAC 3/4" Motorized 2-way on/off ball valve kit
		BCP25-RCS-VALVE-iFCHHC-006	24VAC 3/4" Motorized 3-way on/off ball valve kit
5.Pump kit		BCP25-PUMP-iFCHHC-001	220V pump kit
		BCP25-PUMP-iFCHHC-002	115V pump kit

Blow through Medium ESP ductable unit

iFCVDL-AECM



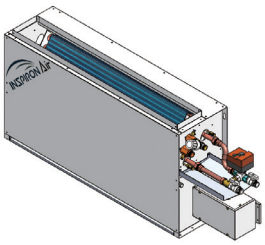
Concealed vertical fan coil unit iFCVDL is designed to accommodate large spaces where easy access to the equipment for maintenance purposes is preferred. Typically, the unit is located in a closet within the conditioned space.

» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor as optional;
» G2 filter & External drain pan as standard;
» Special grade GI steel with Al + Zn coating known as 'Galvalume';
» Organic gold high corrosion resistant hydrophilic aluminum;
» Maximum ESP arrived 0.5 in.wg;
» Completed controller with VAV & VWV control logic as optional;
» 2-way / 3-way modulating valve kit with Isolation ball valves & strainer as optional;

iFCVDL(3R) -400 - V S - AECM -R

L	Left Side Coil
R	Right Side Coil
AECM	EC motor
S	Complete function integrated control, compatible with IR handset controller, wired wall-pad, serial networking for master-slave and MODBUS BMS functionality
W	EC motor driver
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
400-1600	Unit Sizes.
3R	2-pipe 3-row
4R	2-pipe 4-row
3R+1	4-pipe 3-row for cooling and 1 row for heating
iFCVDL	iFCVDL – Vertical concealed type single skin with 9/16” insulation inside

Technical Data



● iFCVDL

iFCVDL(3R)-V-AECM

Product range: iFCVDL(3R) Ceiling Concealed Single Skin Hydronic Ducted Fan Coil
iFCVDL(3R)-V~-AECM Hydronic Ducted 2-pipe Unit with 3-row Coils and EC motor

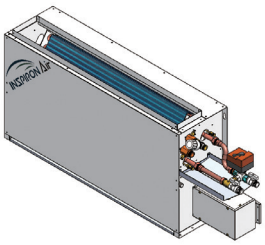
iFCVDL(3R)-[Size]-V~-AECM					400	600	1000	1400	1600
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			Single	Twin		Three	Four
		Power Supply		V/Ph/Hz	115/1/60 or 220 / 1 / 60				
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	384	768	925	1388	1851
			M		285	570	768	1152	1536
			L		173	347	515	824	1099
		Available pressure	H	in.wg	0.4	0.4	0.4	0.4	0.4
			M		0.4	0.4	0.4	0.4	0.4
			L		0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	12067	21509	29153	40915	49131
			M		9604	17168	25282	35420	42807
			L		6506	11601	18592	27244	33011
		Sensible Cooling Capacity	H		8198	14647	19784	27861	33330
			M		6421	11486	16973	23807	28668
			L		4260	7588	12306	18125	21895
	Heating	Heating Capacitye	H	Btu/Hr	18759	33436	45319	63605	76377
			M		14929	26689	39302	55062	66545
			L		10113	18035	28902	42352	51318
		Max. Electric Heater Capacity		kW	2.5	3	6	6	6
	Sound	Sound Pressure Level (Outlet)		dB(A)	51/49/42	52/50/44	56/54/49	54/51/47	59/57/55
		Sound Pressure Level (Inlet + Radiated)			54/52/45	55/53/47	59/57/52	57/54/50	61/59/57
		Sound Power Level (Outlet)			60/58/51	61/59/53	65/63/56	63/60/56	68/66/64
		Sound Power Level (Inlet + Radiated)			63/61/54	64/62/56	68/66/59	66/63/59	70/68/66
	Electrical	Fan Motor Power	H	W	132	170	270	355	380
			M		98	122	208	220	310
			L		43	61	118	126	190
		Fan Motor Running Current @ H		A	1.15	1.48	2.35	3.08	3.30
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.4	4.3	5.8	8.1	9.7
			M		1.9	3.4	5.0	7.0	8.5
			L		1.3	2.3	3.7	5.4	6.5
		Cooling Pressure Drop[e]	H	Ft.wg	14.8	17.6	18.0	14.2	21.1
			M		9.8	11.7	13.9	10.9	16.5
			L		4.9	5.8	8.0	6.8	10.3
		Heating Water Flow Rate	H	GPM	2.4	4.3	5.8	8.1	9.7
			M		1.9	3.4	5.0	7.0	8.5
			L		1.3	2.3	3.7	5.4	6.5
		Heating Pressure Drop[e]	H	Ft.wg	13.4	15.8	16.2	12.8	19.0
			M		8.9	10.5	12.6	9.9	14.8
			L		4.4	5.2	7.2	6.1	9.3
		Water Content		US.gal	0.23	0.35	0.51	0.68	0.75
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)				
			In	inch	NPT 3/4"				
			Out						
		Condensate Drainage Connection							
		Dimensions	L	inch	42-3/4	54-9/16	70-5/16	74-1/4	79-3/4
			H		22-13/16				
			D		11-13/16				

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data



iFCVDL

iFCVDL(4R)-AECM

Product range: iFCVDL(4R) Ceiling Concealed Single Skin Hydronic Ducted Fan Coil
iFCVDL(4R)-V~ Hydronic Ducted 2-pipe Unit with 4-row Coils and EC motor

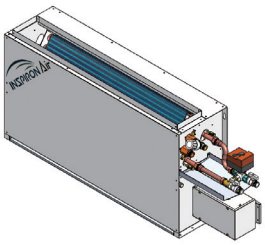
iFCVDL(4R)-[Size]-V~-AECM					400	600	1000	1400	1600
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			single	Twin		Three	Four
		Power Supply		V/Ph/Hz	230 / 1 / 50				
					220 / 1 / 60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	350	701	865	1298	1730
			M		258	516	721	1081	1442
			L		159	319	491	785	1047
		Available pressure	H	in.wg	0.4	0.4	0.4	0.4	0.4
			M		0.4	0.4	0.4	0.4	0.4
			L		0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	9542	18920	23512	36896	43989
			M		7545	14926	20491	31999	38501
			L		5240	10328	15121	25008	30024
		Sensible Cooling Capacity	H		6715	13392	16554	25979	31070
			M		5217	10386	14257	22294	26868
			L		3550	7043	10389	17242	20743
	Heating	Heating Capacity	H	Btu/Hr	14833	29412	36551	57357	68383
			M		11729	23203	31855	49744	59852
			L		8146	16055	23507	38877	46674
		Max. Electric Heater Capacity		kW	2.5	3	6	6	6
	Sound	Sound Pressure Level (Outlet)		dB(A)	51/49/42	52/50/44	56/54/47	54/51/47	59/57/55
		Sound Pressure Level (Inlet + Radiated)			54/52/45	55/53/47	59/57/52	57/54/50	61/59/57
		Sound Power Level (Outlet)			60/58/51	61/59/53	65/63/56	63/60/56	68/66/64
		Sound Power Level (Inlet + Radiated)			63/61/54	64/62/56	68/66/59	66/63/59	70/68/66
	Electrical	Fan Motor Power	H	W	132	170	270	355	380
			M		98	122	208	220	310
			L		43	61	118	126	190
		Fan Motor Running Current @ H		A	1.15	1.48	2.35	3.08	3.3
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.27	2.52	6.4	4.92	5.86
			M		1.01	1.99	5.0	4.26	5.13
			L		0.7	1.38	2.9	3.33	4
		Cooling Pressure Drop	H	Ft.wg	6.4	9.2	8.0	7.6	11.3
			M		4.2	6.0	6.3	5.9	8.9
			L		2.2	3.1	3.6	3.8	5.7
		Water Content		US.gal	0.31	0.46	0.60	0.91	1
Construction and Packing Data		Water Connections	Type		Socket (Threaded Female)				
			In	in	NPT 3/4”				
			Out						
		Condensate Drainage Connection							
		Dimensions	L	inch	42-3/4	54-9/16	70-5/16	74-1/4	79-3/4
			H		22-13/16				
			D		11-13/16				

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data



● iFCVDL

iFCVDL(3R+1)-P

Product range: iFCVDL(3R+1) Ceiling Concealed Single Skin Hydronic Ducted Fan Coil
iFCVDL(3R+1)-P~ Hydronic Ducted 4-pipe Unit with 3-row Cooling and 1 row Heating Coils and EC motor

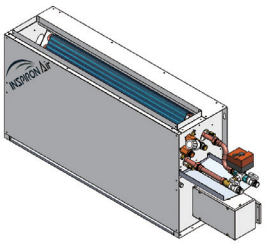
iFCVDL(3R+1)-[Size]-P~-AECM					400	600	1000	1400	1600
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Single	Twin		Three	Four
		Power Supply (V/Ph/Hz)			230 / 1 / 50				
					220 / 1 / 60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	350	701	865	1298	1730
			M		258	516	721	1081	1442
			L		159	319	491	785	1047
		Available pressure	H	in.wg	0.4	0.4	0.4	0.4	0.4
			M		0.4	0.4	0.4	0.4	0.4
			L		0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	11194	20137	27727	39029	46567
			M		8852	15829	24231	33699	40474
			L		6138	10831	17884	26152	31739
		Sensible Cooling Capacity	H		7581	13673	18775	26430	31430
			M		5885	10566	16207	22614	27012
			L		3994	7070	11811	17326	20986
	Heating	Heating Capacity	H	Btu/Hr	9776	17923	23271	33315	42674
			M		7686	14257	20275	29050	37169
			L		5260	9690	15033	22512	28859
		Max. Electric Heater Capacity		kW	2.5	3	6	6	6
	Sound	Sound Pressure Level (Outlet)		dB(A)	51/49/42	52/50/44	56/54/47	54/51/47	59/57/55
		Sound Pressure Level (Inlet + Radiated)			54/52/45	55/53/47	59/57/52	57/54/50	61/59/57
		Sound Power Level (Outlet)			60/58/51	61/59/53	65/63/56	63/60/56	68/66/64
		Sound Power Level (Inlet + Radiated)			63/61/54	64/62/56	68/66/59	66/63/59	70/68/66
	Electrical	Fan Motor Power	H	W	132	170	270	355	380
			M		98	122	208	220	310
			L		43	61	118	126	190
		Fan Motor Running Current @ H		A	1.15	1.48	2.35	3.08	3.30
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.21	3.98	5.48	7.71	9.2
			M		1.75	3.13	4.79	6.65	7.99
			L		1.21	2.14	3.53	5.16	6.27
		Cooling Pressure Drop	H	Ft.wg	13.0	15.6	16.5	13.0	19.2
			M		8.5	10.1	12.9	10.0	14.9
			L		4.4	5.1	7.5	6.3	9.6
		Heating Water Flow Rate	H	GPM	0.49	0.89	1.16	1.66	2.13
			M		0.38	0.71	1.01	1.45	1.85
			L		0.26	0.48	0.75	1.12	1.44
		Heating Pressure Drop	H	Ft.wg	1.4	0.8	1.7	0.33	0.6
			M		0.9	0.5	1.3	0.26	0.4
			L		0.5	0.3	0.8	0.16	0.3
		cooling water content		US.gal	0.23	0.35	0.51	0.68	0.75
		heating water content			0.08	0.12	0.17	0.23	0.25
Construction and Packing Data		Water Connections	Type		Socket (Threaded Female)				
			In	inch	NTP 3/4"				
			Out						
		Condensate Drainage Connection							
		Dimensions	L	inch	42-3/4	54-9/16	70-5/16	74-1/4	79-3/4
			W		22-13/16				
			H		11-13/16				

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data



iFCVDL

iFCVDL(4R+1)-P

Product range: iFCVDL(4R+1) Ceiling Concealed Single Skin Hydronic Ducted Fan Coil
iFCVDL(4R+1)-P~ Hydronic Ducted 4-pipe Unit with 4-row Cooling and 1 row Heating Coils and EC motor

iFCVDL(4R+1)-[Size]-P~-AECM					400	600	1000	1400	1600
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Single	Twin		Three	Four
		Power Supply (V/Ph/Hz)			230 / 1 / 50				
					220 / 1 / 60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	316	634	805	1207	1610
			M		226	453	667	1001	1335
			L		145	291	466	745	994
		Available pressure	H	in.wg	0.4	0.4	0.4	0.4	0.4
			M		0.4	0.4	0.4	0.4	0.4
			L		0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H	Btu/Hr	8884	17515	22337	35110	41743
			M		6828	13548	19431	30382	36137
			L		4838	9561	14538	23993	28538
		Sensible Cooling Capacity	H		6233	12357	15690	24597	29383
			M		4705	9385	13471	21143	25108
			L		3263	6484	9957	16470	19678
	Heating	Heating Capacity	H	Btu/Hr	9003	16606	22056	31696	40325
			M		6983	12933	19170	27337	34960
			L		4904	9024	14430	21764	27702
		Max. Electric Heater Capacity		kW	2.5	3	6	6	6
	Sound	Sound Pressure Level (Outlet)		dB(A)	51/49/42	52/50/44	56/54/47	54/51/47	59/57/55
		Sound Pressure Level (Inlet + Radiated)			54/52/45	55/53/47	59/57/52	57/54/50	61/59/57
		Sound Power Level (Outlet)			60/58/51	61/59/53	65/63/56	63/60/56	68/66/64
		Sound Power Level (Inlet + Radiated)			63/61/54	64/62/56	68/66/59	66/63/59	70/68/66
	Electrical	Fan Motor Power	H	W	132	170	270	355	380
			M		98	122	208	220	310
			L		43	61	118	126	190
		Fan Motor Running Current @ H		A	1.15	1.48	2.35	3.08	3.30
	Hydraulic	Cooling Water Flow Rate	H	GPM	1.18	2.33	2.98	4.68	5.56
			M		0.91	1.81	2.59	4.05	4.81
			L		0.64	1.27	1.94	3.2	3.8
		Cooling Pressure Drop	H	Ft.wg	5.6	8.0	7.3	7.0	10.3
			M		3.5	5.0	5.7	5.4	8.0
			L		1.9	2.7	3.4	3.5	5.2
		Heating Water Flow Rate	H	GPM	0.45	0.83	1.1	1.58	2.01
			M		0.35	0.64	0.95	1.36	1.74
			L		0.24	0.45	0.72	1.08	1.38
		Heating Pressure Drop	H	Ft.wg	1.2	0.7	1.5	0.3	0.5
			M		0.8	0.4	1.2	0.2	0.4
			L		0.4	0.2	0.7	0.2	0.3
		cooling water content		US.gal	0.31	0.46	0.60	0.91	1
		heating water content			0.08	0.12	0.17	0.23	0.25
Construction and Packing Data		Water Connections	Type		Socket (Threaded Female)				
			In	inch	NTP 3/4”				
			Out						
		Condensate Drainage Connection							
		Dimensions	L	inch	42-3/4	54-9/16	70-5/16	74-1/4	79-3/4
			W		22-13/16				
			H		11-13/16				

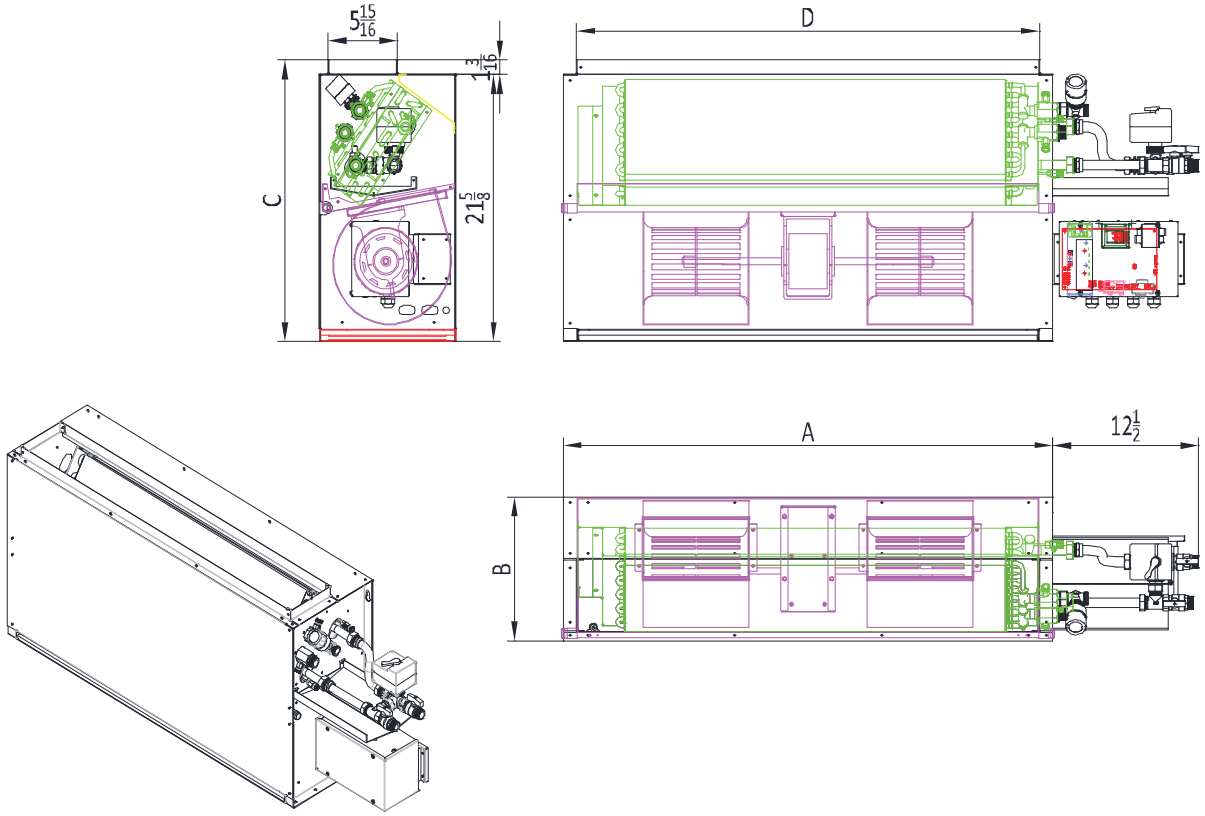
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

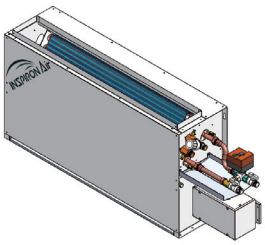
Dimensional drawings



Model	iFCVDL-400	iFCVDL-600	iFCVDL-1000	iFCVDL-1400	iFCVDL-1600
A	30-1/4	41-5/8	57-13/16	61-3/4	67-1/4
B	11-13/16	11-13/16	11-13/16	11-13/16	11-13/16
C	22-13/16	22-13/16	22-13/16	22-13/16	22-13/16
D	27-15/16	39-3/4	55-1/2	59-7/16	64-15/16

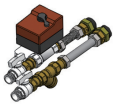
All dimensions are approximate and within 1/16 of an inch of those indicated.

Technical Data



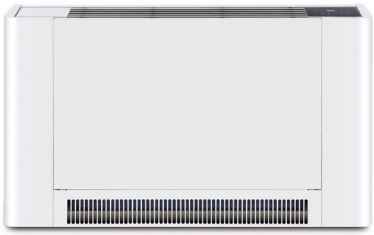
iFCVDL

Accessories (Optional Part)

Accessories	Photo	Code	Description
1. Eeletric heater PTC		BCP25-EH-SSR-220-iFCVDL-001	Electrical heater with SSR and maximum 2.5kw for iFCVDL-400
		BCP25-EH-SSR-220-iFCVDL-002	Electrical heater with SSR and maximum 3.0kw for iFCVDL-600
		BCP25-EH-SSR-220-iFCVDL-003	Electrical heater with SSR and maximum 6.0kw for iFCVDL-1000
		BCP25-EH-SSR-220-iFCVDL-004	Electrical heater with SSR and maximum 6.0kw for iFCVDL-1400
		BCP25-EH-SSR-220-iFCVDL-005	Electrical heater with SSR and maximum 6.0kw for iFCVDL-1600
		BCP25-EH-CR-220-iFCVDL-001	Electrical heater with Contact Relay and maximum 2.5kw for iFCVDL-500
		BCP25-EH-CR-220-iFCVDL-002	Electrical heater with Contact Relay and maximum 3.0kw for iFCVDL-600
		BCP25-EH-CR-220-iFCVDL-003	Electrical heater with Contact Relay and maximum 6.0kw for iFCVDL-1000
		BCP25-EH-CR-220-iFCVDL-004	Electrical heater with Contact Relay and maximum 6.0kw for iFCVDL-1400
		BCP25-EH-CR-220-iFCVDL-005	Electrical heater with Contact Relay and maximum 6.0kw for iFCVDL-1600
2. G4 filter		AA14-M8-iFCVDL-001	Merv 8 or G4 filter for iFCVDL-400
		AA14-M8-iFCVDL-002	Merv 8 or G4 filter for iFCVDL-600
		AA14-M8-iFCVDL-003	Merv 8 or G4 filter for iFCVDL-1000
		AA14-M8-iFCVDL-004	Merv 8 or G4 filter for iFCVDL-1400
		AA14-M8-iFCVDL-005	Merv 8 or G4 filter for iFCVDL-1600
3. Drain pan		BCP-SSDP-iFCVDL-001	Stainless steel drain-pan for iFCVDL-400
		BCP-SSDP-iFCVDL-002	Stainless steel drain-pan for iFCVDL-600
		BCP-SSDP-iFCVDL-003	Stainless steel drain-pan for iFCVDL-1000
		BCP-SSDP-iFCVDL-004	Stainless steel drain-pan for iFCVDL-1400
		BCP-SSDP-iFCVDL-005	Stainless steel drain-pan for iFCVDL-1600
4. Valve kit		BCP25-RCS-VALVE-iFCVDL-001B	24VAC 3/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCVDL-002B	24VAC 3/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iFCVDL-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCVDL-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit

Horizontal or Vertical Ultra Thin

iFCVU-AECM



The slim, space-saving iFCVU unit is designed specifically for under-ceiling mounting or vertical mounting This flexibility allows the unit to be customized to meet a variety of job requirements.

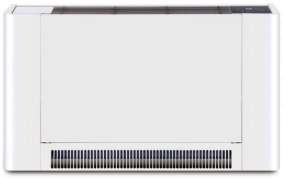
» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» RAL9010 powered coat
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCVU - 01 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
01~05	Unit Sizes
iFCVU	Horizontal or Vertical Ultra Thin

Technical Data

iFCVU



iFCVU-V-AECM

Product range: iFCVU-V~-AECM Super Slim Universal Unit 2-pipe with EC Motor

iFCVU-[Size]-V~-AECM					01	02	03	04	05
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			1			2	
		Power Supply		(V/Ph/Hz)	115/1/60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	105	174	223	270	353
			M		82	144	194	217	294
			L		58	100	135	153	205
	Cooling	Cooling Capacity	H	BTU/Hr	4062	6672	8923	10774	13751
			M		3354	5795	8013	9218	11997
			L		2584	4375	6021	6960	9119
		Sensible Cooling Capacity	H		2674	4413	5853	7065	9072
			M		2180	3782	5202	5960	7827
			L		1654	2822	3864	4448	5878
	Heating	Heating Capacity	H	BTU/Hr	6315	10372	13871	16748	21377
			M		5213	9008	12457	14329	18650
			L		4016	6801	9360	10819	14177
		Max. Electric Heater Capacity @ 220V		kW	0.75	1	1	1.5	1.5
	Sound	Sound Pressure Level		dB(A)	43/38/32	43/38/32	45/43/34	47/42/46	51/45/39
		Sound Power Level			52/47/41	52/47/41	54/52/43	56/51/45	60/54/48
	Electrical	Fan Motor Power	H	W	17	20	22	24	32
			M		13	15	17	18	20
			L		11	12	15	13	14
		Fan Motor Running Current @ H		A	0.13	0.23	0.25	0.3	0.32
	Hydraulic	Cooling Water Flow Rate	H	GPM	0.8	1.32	1.76	2.13	2.72
			M		0.66	1.14	1.58	1.82	2.37
			L		0.51	0.86	1.19	1.37	1.8
		Cooling Pressure Drop	H	ft.wg.	7.08	7.48	15.4	11.83	5.53
			M		5.02	5.8	12.7	8.93	4.33
			L		3.14	3.5	7.62	5.39	2.64
		Hot Water Flow Rate	H	GPM	0.8	1.32	1.76	2.13	2.72
			M		0.66	1.14	1.58	1.82	2.37
			L		0.51	0.86	1.19	1.37	1.8
		Hot Water Pressure Drop	H	ft.wg.	6.37	6.73	13.92	10.64	4.98
			M		4.52	5.22	11.47	8.04	3.9
			L		2.82	3.15	6.86	4.85	2.38
		Water Content		US gal	0.08	0.14	0.19	0.25	0.30
Construction and Packing Data		Water	Type		Socket (Female Threaded)				
			In	Inch	NPT 1/2”				
			Out						
		Condensate Drainage Connection			1/2”				
		Dimensions	L	Inch	28 15/16	36 13/16	44 11/16	52 9/16	60 7/16
			W		5 5/16				
			H		22 15/16				
		Net Weight		lbs	41.9	48.5	55.2	61.8	68.4

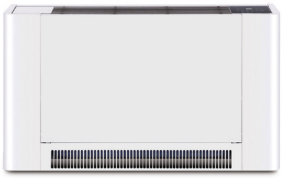
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCVU



iFCVU-P-AECM

Product range: iFCVU-P~-AECM Super Slim Universal Unit 4-pipe with EC Motor

iFCVU-[Size]-P~-AECM					01	02	03	04	05
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			1			2	
		Power Supply		(V/Ph/Hz)	115/1/60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	105	174	223	270	353
			M		82	144	194	217	294
			L		58	100	135	153	205
	Cooling	Total Cooling Capacity	H	BTU/Hr	2995	5089	6771	8314	10752
			M		2485	4413	6091	6969	9380
			L		1907	3309	4577	5374	7118
		Sensible Cooling Capacity	H		2018	3378	4482	5501	7168
			M		1657	2899	4012	4582	6178
			L		1250	2141	2963	3467	4634
	Heating	Heating Capacity	H	BTU/Hr	4024	6692	8804	10727	13832
			M		3312	5791	7883	9108	12092
			L		2549	4386	5936	6953	9194
	Sound	Sound Pressure Level		dB(A)	43/38/32	43/38/32	45/43/34	47/42/46	51/45/39
		Sound Power Level			52/47/41	52/47/41	54/52/43	56/51/45	60/54/48
	Electrical	Fan Motor Power	H	W	17	20	22	24	32
			M		13	15	17	18	20
			L		11	12	15	13	14
		Fan Motor Running Current @ H		A	0.13	0.23	0.25	0.3	0.32
	Hydraulic	Cooling Water Flow Rate	H	GPM	0.59	1.01	1.34	1.64	2.12
			M		0.49	0.87	1.2	1.38	1.85
			L		0.38	0.65	0.9	1.06	1.41
		Cooling Pressure Drop	H	Ft.wg.	2.98	9.8	6.69	5.26	9.65
			M		2.13	7.59	5.53	3.83	7.55
			L		1.32	4.52	3.3	2.4	4.59
		Hot Water Flow Rate	H	GPM	0.2	0.33	0.44	0.53	0.69
			M		0.17	0.29	0.30	0.45	0.6
			L		0.13	0.22	0.25	0.35	0.46
		Heating Pressure Drop	H	Ft.wg.	0.97	3.29	6.85	1.68	3.11
			M		0.69	2.54	5.61	1.25	2.44
			L		0.43	1.54	3.37	0.77	1.49
		Chilled Water Content		US gal	0.06	0.10	0.14	0.18	0.22
		Hot Water Content			0.02	0.04	0.05	0.07	0.08
Construction and Packing Data		Water Connection			Socket (Female Threaded)				
		Chilled Water	In	Inch	NPT1/2”				
			Out						
		Hot water	In						
			Out						
		Condensate Drainage Connection			1/2”				
		Dimensions	L	Inch	28 15/16	36 13/16	44 11/16	52 9/16	60 7/16
			W		5 5/16				
			H		22 15/16				
		Net Weight		lbs	41.9	48.5	55.2	61.8	68.4

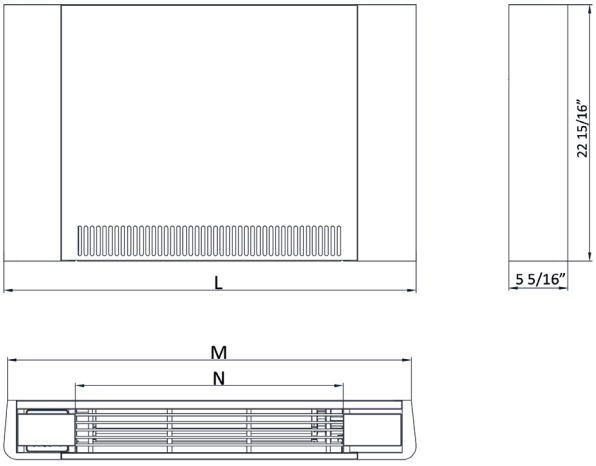
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

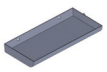
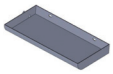
Dimensional drawings



MODEL	01	02	03	04	05
L	28 15/16”	36 13/16”	44 11/16”	52 9/16”	60 7/16
M	28 3/16”	36 1/16”	43 15/16”	51 3/4”	59 5/8”
N	16 1/16”	23 15/16”	31 13/16”	39 11/16”	47 9/16”

All dimensions are approximate and within 1/16 of an inch of those indicated.

Accessories (Optional Part)

Accessories	Photo	Code	Description	FCU model
1. E-heater kit		BCP25-EH-220-PFWSL-PTC-001	0.75 KW 220Vac electric heater kit	iFCVU-01
		BCP25-EH-220-PFWSL-PTC-002	1.0 KW 220Vac electric heater kit	iFCVU-02/03
		BCP25-EH-220-PFWSL-PTC-003	1.5 KW 220Vac electric heater kit	iFCVU-04/05
2. Valve kit		BCP25-RCS-VALVE-iFCVU-001B	24VAC 1/2" thermoelectro 2-way valve kit	iFCVU-2V-DN15-24V
		BCP25-RCS-VALVE-iFCVU-002B	24VAC 1/2" thermoelectro 3-way valve kit	iFCVU-3V-DN15-24V
		BCP25-RCS-VALVE-iFCVU-003	24VAC 1/2" Modulating 2-way valve kit	iFCVU-2MV-DN15-24V
3. Metal feet		BCP-PFWSL-001	metal supporting feet for floor standing applications	iFCVU-Feet
4. External Drain pan		BCP-PFWSL-002	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with right-sided coil connections	iFCVU-EDP-HR
		BCP-PFWSL-003	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with left-sided coil connections	iFCVU-EDP-HL
		BCP-PFWSL-004	Painted steel drain pan for floor standing installation, fixed wall installation and built-in vertical installations. Suitable for left-side and right-side unit coil connections.	iFCVU-EDP-V

Cassette type

iFCKM-AECM



Hydronic cassette units are ideal for retrofit applications and modernizations with suspended ceilings. Ceiling cassette units make each served area an independent controlled temperature zone to suit diverse requirements.

» Performance in accordance to Standard AHRI 440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCKM - 300 - V X - S- AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
300~1200	Unit Sizes. See General Specification Section A for cooling and heating capacities
iFCKM	Hydronic Cassette Series

Technical Data

● iFCKM



iFCKM-V-AECM

Product range: iFCKM-V~-AECM Hydronic Cassette 2-pipe with EC Motor

iFCKM-[Size]-V~-AECM					300	500	800	1200	1600
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			Single				
		Power Supply		(V/Ph/Hz)	115/1/60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	338	476	765	1200	1618
			M		224	425	618	941	1494
			L		118	118	212	482	600
	Cooling	Cooling Capacity	H	Btu/Hr	11907	19132	24201	37785	50990
			M		8762	17181	20606	31527	48387
			L		5220	6042	8526	18830	23557
		Sensible Cooling Capacity	H		7880	12724	16230	25285	34245
			M		5687	11373	13677	20843	32386
			L		3323	3904	5556	12154	15168
	Heating	Heating Capacity	H	Btu/Hr	18509	29741	37622	58739	79266
			M		13621	26708	32034	49009	75219
			L		8115	9393	13255	29272	36620
		Max. Electric Heater Capacity		kW	1	2	3	4	4
	Sound	Sound Pressure Level		dB(A)	43/39/27	50/40/26	56/53/32	58/52/35	64/61/49
		Sound Power Level			52/48/36	59/49/35	65/62/41	67/63/44	73/70/50
	Electrical	Power input in cooling mode	H	W	21	47	82	224	250
			M		14.8	18	37	132	178
			L		11	11	16	27	50
		Power input in heating mode	H	W	16	42	77	219	115
			M		9.8	13	32	127	173
			L		6	6	11	22	45
	Hydraulic	Water flow rate	H	GPM	2.4	3.8	4.8	7.5	10.1
			M		1.7	3.4	4.1	6.2	9.6
			L		1.0	1.2	1.7	3.7	4.7
		Pressure Drop	H	ft WG	12.08	17.31	16.8	16.11	19.63
			M		6.95	14.26	12.58	11.63	17.86
			L		2.74	2.17	2.57	4.6	4.89
		Heating Water Flow Rate	H	GPM	2.4	3.8	4.8	7.5	10.1
			M		1.7	3.4	4.1	6.2	9.6
			L		1.0	1.2	1.7	3.7	4.7
		Heating Pressure Drop	H	ft.wg	10.87	15.58	15.12	14.49	17.67
			M		6.26	12.84	11.32	10.46	16.07
			L		2.46	1.96	2.31	4.14	4.4
		Water Content		Us gal	0.33	0.41	0.47	0.64	0.79
Construction and Packing Data		Type			Socket(Threaded Female)				
		Water Connections	In	inch	3/4”				
			Out						
		Condensate Drainage Connection			1”				
		Dimensions	L	inch	22-15/16	22-15/16	28-3/4	32-11/16	37-13/16
			W		22-15/16	22-15/16	28-3/4	32-11/16	37-13/16
			H		10-1/16	11-7/16	10-1/4	11-7/16	11-7/16
		Panel Dimensions			26-3/4 x 26-3/4 x 1-1/8		32-11/16 x 32-11/16x 1-1/8	38-9/16 x 38-9/16x 1-1/8	44-7/8 x 44-7/8x 1-1/8
		Net Weight		lbs	61.7	66.1	79.4	110	119

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data

● iFCKM



iFCKM-P-AECM

Product range: iFCKM-P~-AECM Hydronic Cassette 4-pipe with EC Motor

iFCKM-[Size]-P~-AECM					300	500	800	1200	1600
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Single				
		Power Supply		(V/Ph/Hz)	115/1/60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat				
Performance Data	Air	Air Flow	H	CFM	338	476	765	1200	1618
			M		224	425	618	941	1494
			L		118	118	212	482	600
	Cooling	Cooling Capacity	H	Btu/Hr	9408	13472	18493	28587	42324
			M		6923	12098	15746	23852	40163
			L		4125	4255	6515	14246	19553
		Sensible Cooling Capacity	H		6303	9092	12641	19475	29024
			M		4549	8126	10653	16053	27449
			L		2658	2789	4327	9361	12855
	Heating	Heating Capacity	H	Btu/Hr	14759	19914	28805	44401	59537
			M		10862	18289	24584	37130	55767
			L		6495	6679	10749	22183	27652
	Sound	Sound Pressure Level		dB(A)	43/39/27	50/40/26	56/53/32	58/54/35	64/61/41
		Sound Power Level			52/48/36	59/49/35	65/62/41	67/63/44	73/70/50
	Electrical	Power input in cooling mode	H	W	21	47	82	224	250
			M		14.8	18	67	132	178
			L		11	11	16	27	50
		Power input in heating mode	H	W	16	42	77	219	115
			M		9.8	13	62	127	173
			L		6	6	11	22	45
	Hydraulic	Chilled Water flow rate	H	GPM	1.9	2.7	3.7	5.7	8.4
			M		1.4	2.4	3.1	4.7	7.9
			L		0.8	0.8	1.3	2.8	3.9
		Chilled water Pressure Drop	H	ft WG	17.58	11.97	13.18	9.62	16.99
			M		10.12	9.86	9.86	6.95	15.47
			L		3.98	1.5	2.01	2.75	4.23
		Hot Water flow rate	H	GPM	0.7	1.0	1.4	2.2	3.0
			M		0.5	0.9	1.2	1.9	2.8
			L		0.3	0.3	0.5	1.1	1.4
		Hot water Pressure Drop	H	ft WG	2.66	2.61	5.07	6.59	3.2
			M		1.53	2.24	3.81	4.77	2.85
			L		0.61	0.37	0.86	1.89	0.81
		Chilled Water Content		Us gal	0.22	0.27	0.31	0.43	0.53
		Hot Water Content		Us gal	0.11	0.14	0.16	0.21	0.26
Construction and Packing Data		Type			Socket(Threaded Female)				
		Water Connections	In	inch	3/4"				
			Out						
		Condensate Drainage Connection			1"				
		Dimensions	L	inch	22-15/16	22-15/16	28-3/4	32-11/16	37-13/16
			W		22-15/16	22-15/16	28-3/4	32-11/16	37-13/16
			H		10-1/16	11-7/16	10-1/4	11-7/16	11-7/16
		Panel Dimensions			26-3/4 x 26-3/4 x 1-1/8		32-11/16 x 32-11/16x 1-1/8	38-9/16 x 38-9/16x 1-1/8	44-7/8 x 44-7/8x 1-1/8
		Net Weight		lbs	61.7	66.1	79.4	110	119

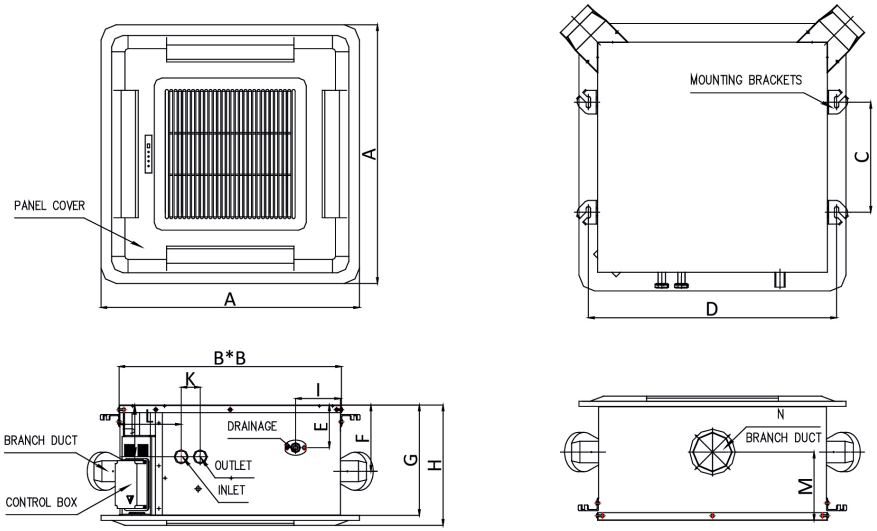
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/outlet water temperature: 180F/140F

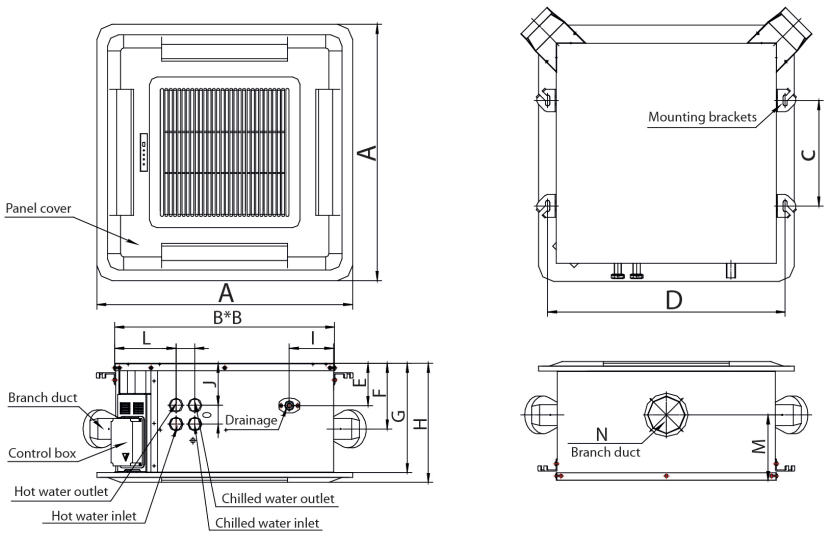
Technical Data

Dimensional Drawings of 2-Pipe Unit



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
iFCKM-300-V-AECM	26-3/4	22-15/16	11	24-1/2	2-7/16	4-7/8	10-1/16	11-1/8	4-5/8	4-5/16	2	6-3/8	4-7/8	Φ3-15/16
iFCKM-500-V-AECM	26-3/4	22-15/16	11	24-1/2	4-7/16	6-7/8	11-7/16	12-1/2	4-5/8	5-3/8	2	6-3/8	6-7/8	Φ3-15/16
iFCKM-800-V-AECM	32-11/16	28-3/4	13-9/16	30	3-5/16	5-7/8	10-1/4	11-5/16	4-15/16	6-7/16	2	6-3/8	5-3/16	Φ3-15/16
iFCKM-1200-V-AECM	38-9/16	32-11/16	19-1/8	34	4-3/16	7	11-7/16	12-1/2	4-5/8	5-3/4	2	6-1/8	5-3/4	Φ3-15/16
iFCKM-1600-V-AECM	44-7/8	37-13/16	19-5/16	39-3/4	4-3/16	7	11-7/16	12-1/2	4-5/8	5-3/4	2	6-1/8	5-3/4	Φ3-15/16

Dimensional Drawings of 4-Pipe Unit



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
iFCKM-300-P-AECM	26-3/4	22-15/16	11	24-1/2	2-7/16	4-7/8	10-1/16	11 1/8	4-5/8	3-7/16	1-15/16	6-3/8	4 7/8	Φ3-15/16	2
iFCKM-500-P-AECM	26-3/4	22-15/16	11	24-1/2	4-7/16	6-7/8	11-7/16	12-1/2	4-5/8	4-5/16	1-15/16	6-3/8	6-7/8	Φ3-15/16	2
iFCKM-800-P-AECM	32-11/16	28-3/4	13-9/16	30	3-5/16	5-7/8	10-1/4	11-5/16	4-15/16	4-7/16	1-15/16	6-3/8	5-3/16	Φ3-15/16	2
iFCKM-1200-P-A-ECM	38-9/16	32-11/16	19-1/8	34	4-3/16	7	11-7/16	12-1/2	4-5/8	3-15/16	1-15/16	6-1/8	5-3/4	Φ3-15/16	2
iFCKM-1600-P-A-ECM	44-7/8	37-13/16	19-5/16	39-3/4	4-3/16	6-15/16	11-7/16	12-1/2	4-5/8	3-3/8	1-15/16	6-1/8	5-3/4	Φ3-15/16	2

(All dimensions are approximate within 1/16 of an inch of those indicated.)

Technical Data

● iFCKM



Accessories (Optional Part)

Accessories	Photo	Code	Description
1. Valve Kit		BCP25-RCS-VALVE-iFCKM-001	24VAC 3/4"2-way thermal valve kit
		BCP25-RCS-VALVE-iFCKM-002	24VAC 3/4" 3-way thermal valve kit
		BCP25-RCS-VALVE-iFCKM-003	24VAC 3/4" Modulating 2-way thermal valve kit
		BCP25-RCS-VALVE-iFCKM-004	Belimo 24VAC 3/4" Modulating 2-way thermal valve kit
2. ABS		AA06-KMH-001	ABS flange for fresh air duct connection
		AA06-KM-002	ABS flange for branch duct connection
3. G4 filter		AA14-M8-KM-001	G4 filter for iFCKM-300/500
		AA14-M8-KM-003	G4 filter for iFCKM-800
		AA14-M8-KM-004	G4 filter for iFCKM-1200
		AA14-M8-KM-005	G4 filter for iFCKM-1600
4. E-heater kit		BCP25-EH-220-iFCKM-001	1 KW 230Vac electric heater kit
		BCP25-EH-220-iFCKM-002	2 KW 230Vac electric heater kit
		BCP25-EH-220-iFCKM-004	3 KW 230Vac electric heater kit
		BCP25-EH-220-iFCKM-005	4 KW 230Vac electric heater kit
		BCP25-EH-220-iFCKM-006	4 KW 230Vac electric heater kit
5. Controller system		BCP25-RCS-EC-iFCKM-001	Plug-and-play control box with complete function PCB (iFCU-EC-S1) for iFCKM-300-500-800
		BCP25-RCS-EC-iFCKM-002	Plug-and-play control box with complete function PCB (iFCU-EC-S3) for iFCKM-1200-1600

High Wall Type

iFCHW-AECM



This High-Wall Unit is designed to meet and exceed demanding requirements for efficiency, quiet operation and appearance. The sleek profile and elegantly styled cabinet complements any interior design theme, while the microprocessor assures accurate environmental control.

» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCHW-200 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
200~750	Unit Sizes
iFCHW	High wall type fan coil unit

Technical Data

● iFCHW



iFCHW-V-AECM

Product range: iFCHW-AECM Hydronic High Wall Unit with EC Motor

iFCHW-[Size]-V~-AECM					200	300	400	500	600	750
Unit Configuration		Configuration			2-pipe					
		Number Of Fan Blowers			Single					
		Power Supply	(V/Ph/Hz)		115 / 1 / 60 or 220 / 1 / 60					
		Operation Control			~S: Complete controller with VAV&VWV control logic					
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat					
Performance Data	Air	Air Flow	H	CFM	223	323	400	464	617	735
			M		159	223	323	353	500	600
			L		117	159	200	224	300	353
	Cooling	Cooling Capacity	H	BTU/Hr	6243	8499	11136	14767	17017	22199
			M		4824	6479	9606	12102	14381	18927
			L		3800	4939	6564	8508	9774	12577
		Sensible Cooling Capacity	H		4255	5869	7657	9980	11587	15126
			M		3241	4391	6522	8048	9670	12708
			L		2507	3295	4367	5538	6427	8251
	Heating	Heating Capacity	H	BTU/Hr	9705	13212	17311	22957	26454	34509
			M		7499	10072	14933	18813	22357	29422
			L		5907	7678	10205	13226	15195	19552
	Electrical	Fan motor power	H	W	17	20	30	42	50	65
			M		10	13	20	25	31	40
			L		9	9	11	13	12	16
		Fan Motor Running Current @ H		A	0.2	0.23	0.27	0.37	0.45	0.59
	Sound	Sound Pressure Level (H/M/L)		dB(A)	37/29/26	41.6/32.3/26.4	47.2/41.6/30	50.3/44.7/33	50.2/45.3/32	52.3/48/36
		Sound Power Level (H/M/L)			48/38/35	50.6/41.3/35.4	56.2/50.6/39	59.3/53.7/42	59.2/54.3/41	61.3/57/45
	Hydronic	Cooling Water Flow Rate	H	GPM	1.23	1.7	2.2	2.9	3.4	4.4
			M		0.95	1.3	1.9	2.4	2.8	3.7
			L		0.75	1.0	1.3	1.7	1.9	2.5
		Cooling Pressure Drop	H	ft.wg	2.69	2.6	3.9	5.3	8.7	15.0
			M		1.69	1.6	3.0	3.7	6.4	11.3
			L		1.1	1.0	1.5	2.0	3.2	5.4
		Heating Water Flow Rate	H	GPM	1.23	1.7	2.2	2.9	3.4	4.4
			M		0.95	1.3	1.9	2.4	2.8	3.7
			L		0.75	1.0	1.3	1.7	1.9	2.5
		Heating Pressure Drop	H	ft.wg	2.42	2.3	3.5	4.8	7.8	13.5
			M		1.52	1.4	2.7	3.4	5.8	10.1
			L		0.99	0.9	1.4	1.8	2.9	4.9
		Water Content		gal	0.11	0.14	0.22	0.28	0.27	0.35
Construction and Package Data		Water Connections	Type		Socket(Threaded Female)					
			In	inch	NPT1/2"					
			Out							
		Condensate Drainage Connection			Dia.5/8"					
		Dimensions	L	inch	39 3/4				46 1/4	
			W		9 1/16				9 1/16	
			D		11 13/16				11 13/16	
		Net Weight		lbs	26.5	28.7	28.7	28.7	30.9	30.9

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F.
~ Water flow same to cooling mode

Technical Data

● iFCHW



iFCHW-P-AECM

Product range: iFCHW-AECM Hydronic High Wall Unit with EC Motor

iFCHW-[Size]-P~-AECM					500	750
Unit Configuration		Configuration			4-pipe	
		Number Of Fan Blowers			Single	
		Power Supply		(V/Ph/Hz)	115 / 1 / 60 or 220 / 1 / 60	
		Operation Control			~S: Complete controller with VAV&VWV control logic	
					~W: EC motor driver suitable for connection to AC or EC modulating thermostat	
Performance Data	Air	Air Flow	H	CFM	464	735
			M		353	600
			L		224	353
	Cooling	Cooling Capacity	H	BTU/Hr	10623	16566
			M		8706	14124
			L		6120	9385
		Sensible Cooling Capacity	H		7099	11067
			M		5725	9297
			L		3939	6036
	Heating	Heating Capacity	H	BTU/Hr	8793	12613
			M		7156	10693
			L		5036	7156
	Sound	Sound Pressure Level (Outlet)		dB(A)	50.3/44.7/33	52.3/48/36
		Sound Power Level (Outlet)			59.3/53.7/42	61.3/57/45
	Electrical	Power input in cooling mode	H	W	42	65
			M		25	40
			L		13	16
		Fan Motor Running Current @ H		A	0.37	0.60
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.1	3.3
			M		1.7	2.8
			L		1.2	1.8
		Cooling Pressure Drop	H	ft.wg	5.7	14.27
			M		4	10.71
			L		2.1	5.13
		Heating Water Flow Rate	H	GPM	0.44	0.63
			M		0.36	0.53
			L		0.25	0.36
		Heating Pressure Drop	H	ft.wg	0.6	1.15
			M		0.42	0.86
			L		0.22	0.42
		Chilled Water Content		gal	0.20	0.25
		Hot Water Content		gal	0.08	0.09
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)	
			In	inch	1/2”	
			Out			
		Condensate Drainage Connection			5/8”	
		Dimensions	L	inch	39 3/4	46 1/4
			W		9 1/16	9 1/16
			D		11 13/16	11 13/16
		Net Weight		lbs	28.7	30.9

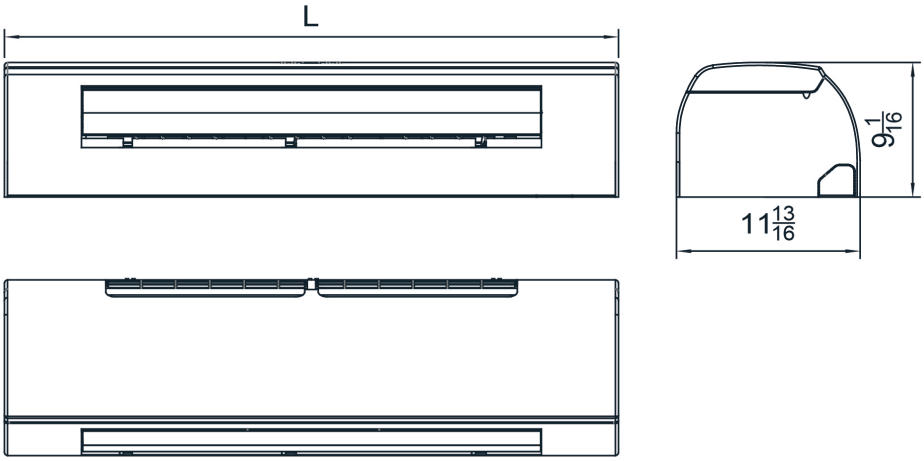
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet / outlet water temperature: 122F/ 113F.

Technical Data

Dimensional drawings



Model	iFCHW-200/300/400/500	iFCHW-600/750
L	39 3/4”	46 1/4”

(All dimensions are approximate within 1/16 of an inch of those indicated.)

Accessories (Optional Part)

Accessories	Photo	Code	Description
1. Pump kit		BCP25-PUMP-iFCHW-001	115V/230V pump kit
2. E-heater kit		BCP25-EH-220V-iFCHW-001	0.75 KW electric heater(220V) for iFCHW-200-300
		BCP25-EH-220V-iFCHW-002	1.2 kWelectric heater kit(220V) for iFCHW-400-500
		BCP25-EH-220V-iFCHW-003	1.5 kW electric heater kit(220V) for iFCHW-600-750
3. Valve kit		BCP24-RCS-VALVE-iFCHW-03	24VAC 1/2" thermoelectro 2-way valve kit
		BCP24-RCS-VALVE-iFCHW-04	24VAC 1/2" thermoelectro 3-way valve kit
		BCP24-RCS-VALVE-iFCHW-05	24VAC 1/2" Modulating 2-way valve kit

Vertical or Horizontal Exposed

iFCVE-AECM



MFCVE units independently provide comfort cooling and heating within a room. They are often located against walls or ceiling, beneath windows or along the perimeter of a room to accommodate maximum load requirements.

» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard;
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
» 6-way valve as optional;

iFCVE - 300 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V EC motor
Y	115V EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
200~1400	Unit Sizes.
iFCVE	Vertical or Horizontal Exposed Series

Technical Data

● iFCVE



iFCVE(3R)-V-AECM

Product range: iFCVE (3R)-V~ Universal 2-pipe Unit with 3-row Coil and EC motor

iFCVE(3R)-[Size]-V~-AECM						200	300	400	500	600	800	1000	1200	1400
Unit Configuration		Configuration				2-pipe								
		Number Of Fan Blowers				Single	Twin				Four			
		Power Supply			(V/Ph/Hz)	115 / 1 / 60 or 220 / 1 / 60								
		Operation Control				~S: Complete controller with VAV&VWV control logic								
						~W: EC motor driver suitable for connection to AC or EC modulating thermostat								
Performance Data	Air	Air Flow	H	3	CFM	206	296	398	494	571	794	955	1169	1333
			M	2		165	254	318	410	486	688	847	1006	1196
			L	1		124	201	224	255	289	398	435	524	559
	Cooling	Cooling Capacity	H	3	Btu/Hr	6204	8658	11209	14284	16545	22823	27205	31555	36130
			M	2		5308	7706	9557	12465	14580	20497	25146	28412	33533
			L	1		4222	6459	7252	8670	9809	13351	14892	16972	18783
		Sensible Cooling Capacity	H	3		4196	5885	7681	9698	11131	15455	18374	21713	24650
			M	2		3540	5179	6453	8357	9725	13735	16827	19338	22766
			L	1		2794	4314	4840	5703	6397	8723	9675	11228	12298
	Heating	Heating Capacity	H	3	Btu/Hr	9644	13460	17425	22206	25719	35480	42291	49054	56165
			M	2		8251	11979	14856	19377	22665	31863	39090	44168	52128
			L	1		6563	10041	11274	13478	15249	20755	23151	26384	29199
		Max. Electric Heater Capacity			kW	1	1.5	2	2	2.5	3	3	3	3
	Sound	Sound Pressure Level			dB(A)	41/35/29	43/38/33	47/40/33	49/44/33	51/47/33	52/48/33	54/50/33	57/54/35	60/58/35
		Sound Power Level				50/44/38	52/47/42	56/49/42	58/53/42	60/55/42	61/57/42	63/59/42	66/63/44	69/67/44
	Electrical	Power input	H	3	W	17	26	38	44	52	87	100	128	182
			M	2		13	15	23	30	36	60	71	92	147
			L	1		8	11	13	13	14	22	24	28	30
	Hydraulic	Cooling Water Flow Rate		3	GPM	1.2	1.7	2.2	2.8	3.3	4.5	5.4	6.2	7.1
				2		1.1	1.5	1.9	2.5	2.9	4.1	5.0	5.6	6.6
				1		0.8	1.3	1.4	1.7	1.9	2.6	2.9	3.4	3.7
		Cooling Pressure Drop		3	ft.wg	3.2	6.0	3.7	6.4	8.6	8.8	13.0	6.1	8.3
				2		2.4	4.9	2.7	5.0	6.8	7.2	11.3	5.0	7.3
				1		1.6	3.6	1.7	2.6	3.4	3.3	4.4	2.0	2.6
		Heating Water Flow Rate		3	GPM	1.2	1.7	2.2	2.8	3.3	4.5	5.4	6.2	7.1
				2		1.1	1.5	1.9	2.5	2.9	4.1	5.0	5.6	6.6
				1		0.8	1.3	1.4	1.7	1.9	2.6	2.9	3.4	3.7
		Heating Pressure Drop		3	ft.wg	2.9	5.4	3.3	5.8	7.7	7.9	11.7	5.5	7.5
				2		2.2	4.4	2.5	4.5	6.2	6.5	10.1	4.5	6.5
				1		1.4	3.2	1.5	2.4	3.0	3.0	3.9	1.8	2.3
		Water Content			Us.gal	0.17	0.20	0.25	0.31	0.33	0.46	0.52	0.58	0.64
Construction and Packing Data		Water	Type			Socket(Threaded Female)								
		Connections	In		in	NPT 3/4"								
			Out											
		Condensate Drainage Connection				Dia.5/8"								
		Dimensions	L		inch	33-3/4	35-3/4	41-5/8	47-9/16	49-1/2	63-5/16	69-3/16	75-1/8	81
			W			9-13/16								
			H			19-1/2								
		Net Weight			lbs	49	53	57	66	71	104	104	108	119

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F.
~ Water flow same to cooling mode

Technical Data

● iFCVE



iFCVE(4R)-V-AECM

Product range: iFCVE (4R)-V~ Universal 2-pipe Unit with 4-row Coil and EC motor

iFCVE(4R)-[Size]-V~-AECM						200	300	400	500	600	800	1000	1200	1400
Unit Configuration		Configuration				2-pipe								
		Number Of Fan Blowers				Single	Twin				Four			
		Power Supply			(V/Ph/Hz)	115 / 1 / 60 or 220 / 1 / 60								
		Operation Control				~S: Complete controller with VAV&VWV control logic								
						~W: EC motor driver suitable for connection to AC or EC modulating thermostat								
Performance Data	Air	Air Flow	H	3	CFM	206	296	398	494	571	794	955	1169	1333
			M	2		165	254	318	410	486	688	847	1006	1196
			L	1		124	201	224	255	289	398	435	524	559
	Cooling	Cooling Capacity	H	3	Btu/Hr	5784	8147	10954	13746	16009	21943	26071	31034	35266
			M	2		4949	7250	9339	11995	14108	19707	24097	27943	32731
			L	1		3936	6077	7087	8343	9492	12837	14272	16692	18334
		Sensible Cooling Capacity	H	3		4075	5734	7676	9631	11132	15349	18196	21872	24721
			M	2		3438	5047	6449	8299	9726	13641	16664	19479	22831
			L	1		2713	4204	4838	5663	6398	8663	9581	11310	12333
	Heating	Heating Capacity	H	3	Btu/Hr	8992	12664	17028	21369	24887	34112	40528	48244	54823
			M	2		7693	11271	14518	18647	21932	30635	37460	43438	50882
			L	1		6119	9447	11017	12970	14755	19955	22186	25948	28501
		Max. Electric Heater Capacity			kW	1	1.5	2	2	2.5	3	3	3	3
	Sound	Sound Pressure Level			dB(A)	41/35/29	43/38/33	47/40/33	49/44/33	51/47/33	52/48/33	54/50/33	57/54/35	60/58/35
		Sound Power Level				50/44/38	52/47/42	56/49/42	58/53/42	60/55/42	61/57/42	63/59/42	66/63/44	69/67/44
	Electrical	Power input	H	3	W	17	26	38	44	52	87	100	128	182
			M	2		13	15	23	30	36	60	71	92	147
			L	1		8	11	12	13	14	22	24	28	30
	Hydraulic	Cooling Water Flow Rate		3	GPM	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7
				2		0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4
				1		0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4
		Cooling Pressure Drop		3	ft.wg	1.8	3.5	6.9	11.8	16.0	11.6	17.2	11.7	15.5
				2		1.4	2.8	5.2	9.3	12.8	9.5	15.0	9.7	13.6
				1		0.9	2.1	3.2	4.8	6.3	4.4	5.8	3.8	4.8
		Heating Water Flow Rate		3	GPM	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7
				2		0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4
				1		0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4
		Heating Pressure Drop		3	ft.wg	1.6	3.1	6.2	10.7	14.4	10.4	15.5	10.5	14.0
				2		1.2	2.6	4.7	8.3	11.5	8.6	13.5	8.7	12.2
				1		0.8	1.9	2.8	4.3	5.6	4.0	5.2	3.4	4.3
		Water Content			Us.gal	0.17	0.20	0.25	0.31	0.33	0.46	0.52	0.58	0.64
Construction and Packing Data		Water	Type			Socket(Threaded Female)								
		Connections	In		in	NPT 3/4"								
			Out											
		Condensate Drainage Connection				Dia.5/8"								
		Dimensions	L		inch	33-3/4	35-3/4	41-5/8	47-9/16	49-1/2	63-5/16	69-3/16	75-1/8	81
			W			9-13/16								
			H			19-1/2								
		Net Weight			lbs	49	53	57	66	71	104	104	108	119

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F.
~ Water flow same to cooling mode

Technical Data

● iFCVE



iFCVE(3R+1)-P-AECM

Product range: iFCVE Universal Uncased/Cabinet Fan Coil Unit
iFCVE (3R+1)-P~ Universal 4-pipe Unit with 3-row Coil for cooling, 1-row coil for heating and EC motor

iFCVE(3R+1)-[Size]-P~-AECM						200	300	400	500	600	800	1000	1200	1400
Unit Configuration		Configuration				4-pipe								
		Number Of Fan Blowers				Single	Twin				Four			
		Power Supply			(V/Ph/Hz)	115 / 1 / 60 or 220 / 1 / 60								
		Operation Control				~S: Complete controller with VAV&VWV control logic								
						~W: EC motor driver suitable for connection to AC or EC modulating thermostat								
Performance Data	Air	Air Flow	H	3	CFM	206	296	398	494	571	794	955	1169	1333
			M	2		165	254	318	410	486	688	847	1006	1196
			L	1		124	201	224	255	289	398	435	524	559
	Cooling	Cooling Capacity	H	3	Btu/Hr	6204	8658	11209	14284	16545	22823	27205	31555	36130
			M	2		5308	7706	9557	12465	14580	20497	25146	28412	33533
			L	1		4222	6459	7252	8670	9809	13351	14892	16972	18783
		Sensible Cooling Capacity	H	3		4196	5885	7681	9698	11131	15455	18374	21713	24650
			M	2		3540	5179	6453	8357	9725	13735	16827	19338	22766
			L	1		2794	4314	4840	5703	6397	8723	9675	11228	12298
	Heating	Heating Capacity	H	3	Btu/Hr	6497	8816	11747	14594	16377	22719	26783	32154	36533
			M	2		5496	7773	9990	12732	14693	20581	24542	28807	33553
			L	1		4402	6589	7598	8746	9867	13490	14661	17523	18902
		Max. Electric Heater Capacity			kW	1	1.5	2	2	2.5	3	3	3	3
	Sound	Sound Pressure Level			dB(A)	41/35/29	43/38/33	47/40/33	49/44/33	51/47/33	52/48/33	54/50/33	57/54/35	60/58/35
		Sound Power Level				50/44/38	52/47/42	56/49/42	58/53/42	60/55/42	61/57/42	63/59/42	66/63/44	69/67/44
	Electrical	Power input	H	3	W	17	26	38	44	52	87	100	128	182
			M	2		13	15	23	30	36	60	71	92	147
			L	1		8	11	13	13	14	22	24	28	30
	Hydraulic	Cooling Water Flow Rate		3	GPM	1.2	1.7	2.2	2.8	3.3	4.5	5.4	6.2	7.1
				2		1.1	1.5	1.9	2.5	2.9	4.1	5.0	5.6	6.6
				1		0.8	1.3	1.4	1.7	1.9	2.6	2.9	3.4	3.7
		Cooling Pressure Drop		3	ft.wg	3.2	6.0	3.7	6.4	8.6	8.8	13.0	6.1	8.3
				2		2.4	4.9	2.7	5.0	6.8	7.2	11.3	5.0	7.3
				1		1.6	3.6	1.7	2.6	3.4	3.3	4.4	2.0	2.6
		Heating Water Flow Rate		3	GPM	0.3	0.4	0.6	0.7	0.8	1.1	1.3	1.6	1.8
				2		0.3	0.4	0.5	0.6	0.7	1.0	1.2	1.4	1.7
				1		0.2	0.3	0.4	0.4	0.5	0.7	0.7	0.9	0.9
		Heating Pressure Drop		3	ft.wg	0.4	0.8	1.5	2.6	3.4	1.1	1.7	2.5	3.5
				2		0.3	0.6	1.2	2.1	2.8	0.9	1.4	2.1	3.0
				1		0.2	0.5	0.7	1.1	1.4	0.4	0.6	0.9	1.1
		Chilled Water Content			Us.gal	0.17	0.20	0.25	0.31	0.33	0.46	0.52	0.58	0.64
		Hot Water Content				0.06	0.07	0.08	0.10	0.11	0.15	0.17	0.19	0.21
Construction and Packing Data		Water	Type			Socket(Threaded Female)								
		Chilled Coil Connections	In		in	NPT 3/4"								
			Out											
		Hot Coil Connections	In			NPT 1/2"								
			Out											
		Condensate Drainage Connection				Dia.5/8"								
		Dimensions	L		inch	33-3/4	35-3/4	41-5/8	47-9/16	49-1/2	63-5/16	69-3/16	75-1/8	81
			W			9-13/16								
			H			19-1/2								
		Net Weight			lbs	49	53	57	66	71	104	104	108	119

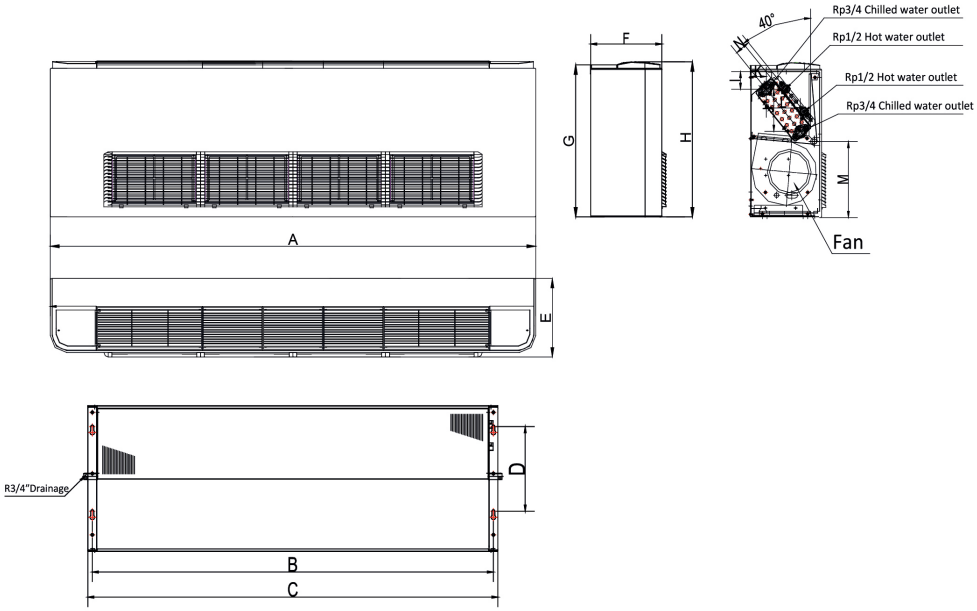
Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet/Outlet water temperature: 180F/140F

Technical Data

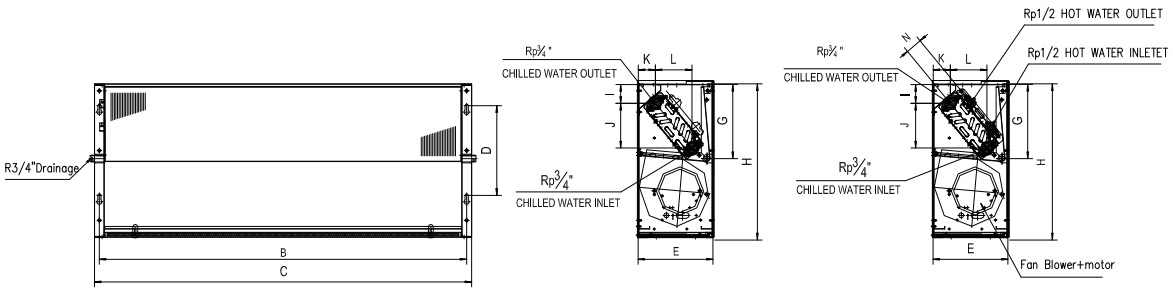
Dimensional Drawings: iFCVE series



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
iFCVE-200	33-3/4	22-3/4	23-15/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-300	35-3/4	24-3/4	25-15/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-400	41-5/8	30-5/8	31-13/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-500	47-9/16	36-9/16	37-3/4	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-600	49-1/2	38-1/2	39-11/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-800	63-5/16	52-5/16	53-7/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-1000	69-3/16	58-3/16	59-3/8	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-1200	75-1/8	64-1/16	65-1/4	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
iFCVE-1400	81	70	71-3/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2

(All dimensions are approximate within 1/16 of an inch of those indicated)

Dimensional Drawings: iFCVE-A series



Model	B	C	D	E	G	H	I	J	K	L	N
iFCVE-200-A	22-3/4	23-15/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-300-A	24-3/4	25-15/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-400-A	30-5/8	31-13/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-500-A	36-9/16	37-3/4	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-600-A	38-1/2	39-11/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-800-A	52-5/16	53-7/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-1000-A	58-3/16	59-3/8	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-1200-A	64-1/16	65-1/4	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
iFCVE-1400-A	70	71-3/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2

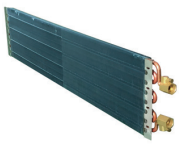
(All dimensions are approximate within 1/16 of an inch of those indicated)

Technical Data

● iFCVE



Accessories (Optional Part)

Accessories	Photo	Code	Description
1. ABS		BCP-WMU-004	ABS supporting feet for floor standing applications
2. External Drain pan		BCP-WMU-001	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with right-sided coil connections
		BCP-WMU-002	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with left-sided coil connections
		BCP-WMU-003	Painted steel drain pan for floor standing installation, fixed wall installation and built-in vertical installations. Suitable for left-side and right-side unit coil connections.
3. Drain Pan		BCP-SSDP-WMU-001	Stainless steel drain pan for iFCVE-200
		BCP-SSDP-WMU-002	Stainless steel drain pan for iFCVE-300
		BCP-SSDP-WMU-003	Stainless steel drain pan for iFCVE-400
		BCP-SSDP-WMU-004	Stainless steel drain pan for iFCVE-500
		BCP-SSDP-WMU-005	Stainless steel drain pan for iFCVE-600
		BCP-SSDP-WMU-006	Stainless steel drain pan for iFCVE-800
		BCP-SSDP-WMU-007	Stainless steel drain pan for iFCVE-1000
		BCP-SSDP-WMU-008	Stainless steel drain pan for iFCVE-1200
		BCP-SSDP-WMU-009	Stainless steel drain pan for iFCVE-1400
4. Filter		AA14-M8-WMU-001	G4 filter , 1Pcs for iFCVE-200 installation only
		AA14-M8-WMU-002	G4 filter , 1Pcs for iFCVE-300 installation only
		AA14-M8-WMU-003	G4 filter , 1Pcs for iFCVE-400 installation only
		AA14-M8-WMU-004	G4 filter , 1Pcs for iFCVE-500 installation only
		AA14-M8-WMU-005	G4 filter , 1Pcs for iFCVE-600 installation only
		AA14-M8-WMU-006	G4 filter , 1Pcs for iFCVE-800 installation only
		AA14-M8-WMU-007	G4 filter , 1Pcs for iFCVE-1000 installation only
		AA14-M8-WMU-008	G4 filter , 1Pcs for iFCVE-1200 installation only
		AA14-M8-WMU-009	G4 filter , 1Pcs for iFCVE-1400 installation only
5. Valve kit		BCP25-RCS-VALVE-iFCVE-001	24VAC 3/4"2-way thermal valve kit
		BCP25-RCS-VALVE-iFCVE-002	24VAC 3/4" 3-way thermal valve kit for Right connection
		BCP25-RCS-VALVE-iFCVE-003	24VAC 3/4" 3-way thermal valve kit for Left connection
		BCP25-RCS-VALVE-iFCVE-004	24VAC 1/2"2-way thermal valve kit
		BCP25-RCS-VALVE-iFCVE-005	24VAC 1/2" 3-way thermal valve kit for Right connection
		BCP25-RCS-VALVE-iFCVE-006	24VAC 1/2" 3-way thermal valve kit for Left connection
		BCP25-RCS-VALVE-iFCVE-007	24VAC 3/4" Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCVE-008	24VAC 1/2" Modulating 2-way ball valve kit
7. Heating coil		BCP-COIL(L1)-WMU-001	Additional 1-row heating coil for size 200
		BCP-COIL(L1)-WMU-002	Additional 1-row heating coil for size 300
		BCP-COIL(L1)-WMU-003	Additional 1-row heating coil for size 400
		BCP-COIL(L1)-WMU-004	Additional 1-row heating coil for size 500
		BCP-COIL(L1)-WMU-005	Additional 1-row heating coil for size 600
		BCP-COIL(L1)-WMU-006	Additional 1-row heating coil for size 800
		BCP-COIL(L1)-WMU-007	Additional 1-row heating coil for size 1000
		BCP-COIL(L1)-WMU-008	Additional 1-row heating coil for size 1200
		BCP-COIL(L1)-WMU-009	Additional 1-row heating coil for size 1400
8. E-heater kit		BCP25-EH-220-WMU-PTC-001	1 kW 220V PTC electric heat module for iFCVE-200
		BCP25-EH-220-WMU-PTC-002	1.5 kW 220V PTC electric heat module for iFCVE-300~400
		BCP25-EH-220-WMU-PTC-003	2.0 kW 220V PTC electric heat module for iFCVE-500
		BCP25-EH-220-WMU-PTC-004	2.5 kW 220V PTC electric heat module for iFCVE-600
		BCP25-EH-220-WMU-PTC-005	3.0 kW 220V PTC electric heat module for iFCVE-800~1400

High ESP Horizontal Ceiling Concealed

iFCHD-AECM



iFCHD units are air-treatment fan coil units ideal for installations where ducted air distribution is necessary. The units are designed for installation in suspended ceilings or lining walls and are characterized by their compactness and extremely low noise.

» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard; Merv 8 class filter as optional;
» Special grade GI steel with Al + Zn coating known as 'Galvalume'
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
» 6-way valve as optional;

iFCHD- 1000 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
1000~2400	Unit Sizes
iFCHD	High ESP horizontal ceiling concealed unit with Plenum & filter

Technical Data



● iFCHD

iFCHD(3R)-V-AECM

Product range: iFCHD(3R)-V~-AECM Hydronic Ducted 2-pipe Unit with 3-row Coil and EC motor

iFCHD(3R)-[Size]-V~-AECM					1000	1200	1600	2000	2400
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			Twin			Four	
		Power Supply		(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H	CFM	1195	1399	1693	2111	2564
			M		838	1172	1337	1820	2249
			L		406	616	909	1013	1434
		External Static Pressure	H	in.wg	0.48	0.48	0.48	0.48	0.48
			M		0.48	0.48	0.48	0.48	0.48
			L		0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	BTU/Hr	30858	36547	45899	56911	69144
			M		23509	32080	38193	51041	62655
			L		13148	19332	28521	32435	44195
		Sensible Cooling Capacity	H		21193	24989	31205	38692	46810
			M		15836	21684	25596	34349	42002
			L		8675	12691	18808	21277	29109
	Heating	Heating Capacity	H	Btu/Hr	47969	56814	71351	88471	107488
			M		36546	49871	59373	79346	97400
			L		20440	30052	44337	50422	68704
		Max. Electric Heater Capacity		kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)			59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)			71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)			68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H	W	280	360	480	580	700
			M		180	260	350	450	540
			L		60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H	GPM	6.09	7.22	9.06	11.24	13.65
			M		4.64	6.34	7.54	10.08	12.37
			L		2.6	3.82	5.63	6.41	8.73
		Cooling Pressure Drop	H	ft.wg	10.73	16.09	14.31	13.48	14.54
			M		6.58	12.72	10.28	11.08	12.18
			L		2.31	5.11	6.08	4.9	6.5
		Heating Pressure Drop	H	ft.wg	9.66	14.48	12.88	12.13	14.14
			M		5.92	11.45	9.25	9.97	11.79
			L		2.08	4.6	5.47	4.41	5.86
		Water content		gal	0.632	0.734	1.014	1.251	1.430
Construction and Packing Data		Water Connections	Type	inch	Socket (NPT Threaded)				
			In		NPT3/4"			NPT1"	
			Out						
		Condensate Drainage Connection			NPT3/4"				
		Dimensions	L	inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W		29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H		13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight		lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F.
-Water flow same to cooling mode.

Technical Data



iFCHD

iFCHD(4R)-V-AECM

Product range: iFCHD(4R)-V~-AECM Hydronic Ducted 2-pipe Unit with 4-row Coil and EC motor

iFCHD(4R)-[Size]-V~-AECM					1000	1200	1600	2000	2400
Unit Configuration		Configuration			2-pipe				
		Number Of Fan Blowers			Twin			Four	
		Power Supply		(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H	CFM	1129	1334	1629	2090	2490
			M		750	1098	1265	1705	2164
			L		333	502	813	842	1309
		External Static Pressure	H	in.wg	0.48	0.48	0.48	0.48	0.48
			M		0.48	0.48	0.48	0.48	0.48
			L		0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	BTU/Hr	34560	41395	52332	66794	77691
			M		25232	35741	43093	57025	70131
			L		13249	19552	30535	33026	47290
		Sensible Cooling Capacity	H		23465	27865	34914	44653	52138
			M		16800	23737	28416	37653	46642
			L		8772	12631	19710	21277	30717
	Heating	Heating Capacity	H	Btu/Hr	53726	64350	81352	103835	120774
			M		39224	55561	66990	88648	109021
			L		20597	30394	47468	51341	73514
		Max. Electric Heater Capacity		kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)			59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)			71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)			68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H	W	280	360	480	580	700
			M		180	260	350	450	540
			L		60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H	GPM	6.82	8.17	10.33	13.19	15.34
			M		4.98	7.06	8.51	11.26	13.85
			L		2.62	3.86	6.03	6.52	9.34
		Cooling Pressure Drop	H	ft.wg	7.97	12.13	13.14	14.41	9.69
			M		4.52	9.31	9.26	10.84	8.06
			L		1.42	3.14	4.98	4.06	3.97
		Heating Pressure Drop	H	ft.wg	7.17	10.91	11.83	12.97	8.72
			M		4.07	8.38	8.34	9.76	7.26
			L		1.28	2.83	4.49	3.65	3.57
		Water content		gal	0.843	0.978	1.352	1.668	1.906
Construction and Packing Data		Water Connections	Type	inch	Socket (NPT Threaded)				
			In		NPT3/4"			NPT1"	
			Out						
		Condensate Drainage Connection			NPT3/4"				
		Dimensions	L	inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W		29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H		13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight		lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F.
-Water flow same to cooling mode.

Technical Data



● iFCHD

iFCHD(6R)-V-AECM

Product range: iFCHD(6R)-V~-AECM Hydronic Ducted 2-pipe Unit with 6-row Coil and EC motor

iFCHD(6R)-[Size]-V~-AECM						1000	1200	1600	2000	2400
Unit Configuration		Configuration				2-pipe				
		Number Of Fan Blowers				Twin			Four	
		Power Supply			(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control				~S: Complete controller with VAV&VWV control logic				
						~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H		CFM	1020	1224	1564	1881	2341
			M			604	974	1145	1475	1993
			L			242	360	693	587	1121
		External Static Pressure	H		in.wg	0.48	0.48	0.48	0.48	0.48
			M			0.48	0.48	0.48	0.48	0.48
			L			0.24	0.24	0.24	0.24	0.24
	Cooling	Cooling Capacity	H		BTU/Hr	29106	35035	45552	55162	68076
			M			19461	29464	35483	45545	59743
			L			9060	13308	23954	21546	38204
		Sensible Cooling Capacity	H			18547	22301	28862	34978	43012
			M			12126	18545	22230	28659	37478
			L			5626	8320	14671	13480	23397
	Heating	Heating Capacity	H		Btu/Hr	45247	54464	70813	85751	105827
			M			30253	45803	55161	70802	92873
			L			14085	20688	37238	33494	59389
		Max. Electric Heater Capacity			kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)			dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)				59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)				71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)				68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H		W	280	360	480	580	700
			M			180	260	350	450	540
			L			60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H		GPM	3.88	4.67	6.07	7.35	9.07
			M			2.59	3.93	4.73	6.07	7.96
			L			1.21	1.77	3.19	2.87	5.09
		Cooling Pressure Drop	H		ft.wg	9.41	14.46	13.72	12.3	20.35
			M			4.56	10.59	8.75	8.72	16.09
			L			1.15	2.53	4.32	2.27	7.2
		Heating Pressure Drop	H		ft.wg	8.47	13.02	12.35	11.07	18.32
			M			4.1	9.53	7.88	7.84	14.48
			L			1.04	2.28	3.88	2.04	6.48
		Water content			gal	1.265	1.468	2.028	2.502	2.859
Construction and Packing Data		Water Connections	Type			Socket (NPT Threaded)				
			In		inch	NPT3/4"			NPT1"	
			Out							
		Condensate Drainage Connection				3/4"				
		Dimensions	L		inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W			29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H			13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight			lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F.
-Water flow same to cooling mode.

Technical Data



iFCHD

iFCHD(3R+1)-P-AECM

Product range: iFCHD(3R+1)-P~-AECM Hydronic Ducted 4-pipe Unit with 3-row cooling Coil, 1-row heating coil and EC motor

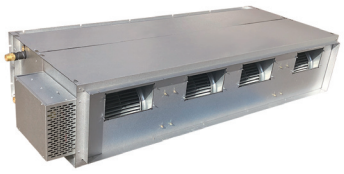
iFCHD(3R+1)-[Size]-P~-AECM					1000	1200	1600	2000	2400
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Twin				Four
		Power Supply		(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H	CFM	1129	1334	1629	2090	2490
			M		750	1098	1265	1705	2164
			L		333	502	813	842	1309
		External Static Pressure	H	in.wg	0.48	0.48	0.48	0.48	0.48
			M		0.48	0.48	0.48	0.48	0.48
			L		0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	BTU/Hr	29555	35233	44487	56470	67550
			M		21577	30421	36633	48211	60977
			L		11330	16642	25958	27922	41117
		Sensible Cooling Capacity	H		20260	24051	30136	38358	45608
			M		14505	20488	24527	32345	40799
			L		7574	10902	17013	18277	26870
	Heating	Heating Capacity	H	BTU/Hr	28967	34046	42978	54770	64664
			M		21149	29396	35391	46759	58372
			L		11105	16081	25078	27081	39361
		Max. Electric Heater Capacity		kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)			59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)			71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)			68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H	W	280	360	480	580	700
			M		180	260	350	450	540
			L		60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H	GPM	5.84	6.96	8.79	11.15	13.34
			M		4.26	6.01	7.23	9.52	12.04
			L		2.24	3.29	5.13	5.51	8.12
		Cooling Pressure Drop	H	ft.wg	9.93	15.06	13.53	13.29	15.49
			M		5.64	11.56	9.54	10	12.88
			L		1.77	3.9	5.13	3.74	6.34
		Heating Water Flow Rate	H	GPM	1.44	1.70	2.14	2.73	3.22
			M		1.05	1.46	1.76	2.33	2.91
			L		0.55	0.80	1.25	1.35	1.96
		Heating Pressure Drop	H	ft.wg	0.96	1.43	1.29	2.39	3.69
			M		0.54	1.1	0.91	1.8	3.07
			L		0.17	0.37	0.49	0.67	1.51
		cooling water content		gal	0.632	0.734	1.014	1.251	1.430
		heating water content			0.211	0.245	0.338	0.417	0.477
Construction and Packing Data		Chilled Water Connections	Type	inch	Socket (NPT Threaded)				
			In		NPT3/4"			NPT1"	
			Out						
		Hot Water Connections	In		NPT3/4"				
			Out						
		Condensate Drainage Connection			3/4"				
		Dimensions	L	inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W		29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H		13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight		lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB. Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHD



iFCHD(4R+1)-P-AECM

Product range: iFCHD(4R+1)-P~-AECM Hydronic Ducted 4-pipe
Unit with 4-row cooling Coil, 1-row heating coil and EC motor

iFCHD(4R+1)-[Size]-P~-AECM					1000	1200	1600	2000	2400
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Twin				Four
		Power Supply		(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H	CFM	1075	1279	1596	1985	2415
			M		677	1036	1205	1590	2078
			L		291	436	757	723	1221
		External Static Pressure	H	in.wg	0.48	0.48	0.48	0.48	0.48
			M		0.48	0.48	0.48	0.48	0.48
			L		0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	BTU/Hr	33291	40160	51502	64187	76468
			M		23174	34100	41717	54143	68201
			L		11797	16968	28961	28661	44975
		Sensible Cooling Capacity	H		22553	26969	34295	42709	51222
			M		15381	22583	27487	35709	45267
			L		7807	11092	18666	18686	29175
	Heating	Heating Capacity	H	BTU/Hr	27903	33030	42297	52632	63647
			M		19424	28046	34261	44397	56765
			L		9888	13955	23785	23502	37434
		Max. Electric Heater Capacity		kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)			59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)			71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)			68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H	W	280	360	480	580	700
			M		180	260	350	450	540
			L		60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H	GPM	6.57	7.93	10.17	12.68	15.1
			M		4.58	6.73	8.24	10.69	13.47
			L		2.33	3.35	5.72	5.66	8.88
		Cooling Pressure Drop	H	ft.wg	7.45	11.48	12.77	13.42	9.42
			M		3.88	8.56	8.74	9.88	7.67
			L		1.15	2.44	4.53	3.14	3.62
		Heating Water Flow Rate	H	GPM	1.39	1.65	2.11	2.62	3.17
			M		0.97	1.40	1.71	2.21	2.83
			L		0.49	0.70	1.18	1.17	1.86
		Heating Pressure Drop	H	ft.wg	0.89	1.36	1.25	2.22	3.58
			M		0.47	1.01	0.86	1.64	2.92
			L		0.14	0.29	0.44	0.52	1.38
		cooling water content		gal	0.843	0.978	1.352	1.668	1.906
		heating water content			0.211	0.245	0.338	0.417	0.477
Construction and Packing Data		Chilled Water Connections	Type		Socket (NPT Threaded)				
			In	inch	NPT3/4"			NPT1"	
			Out						
		Hot Water Connections	In		NPT3/4"				
			Out						
		Condensate Drainage Connection			3/4"				
		Dimensions	L	inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W		29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H		13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight		lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data



iFCHD

iFCHD(4R+2)-P-AECM

Product range: iFCHD(4R+2)-P~-AECM Hydronic Ducted 4-pipe Unit with 4-row cooling Coil, 2-row heating coil and EC motor

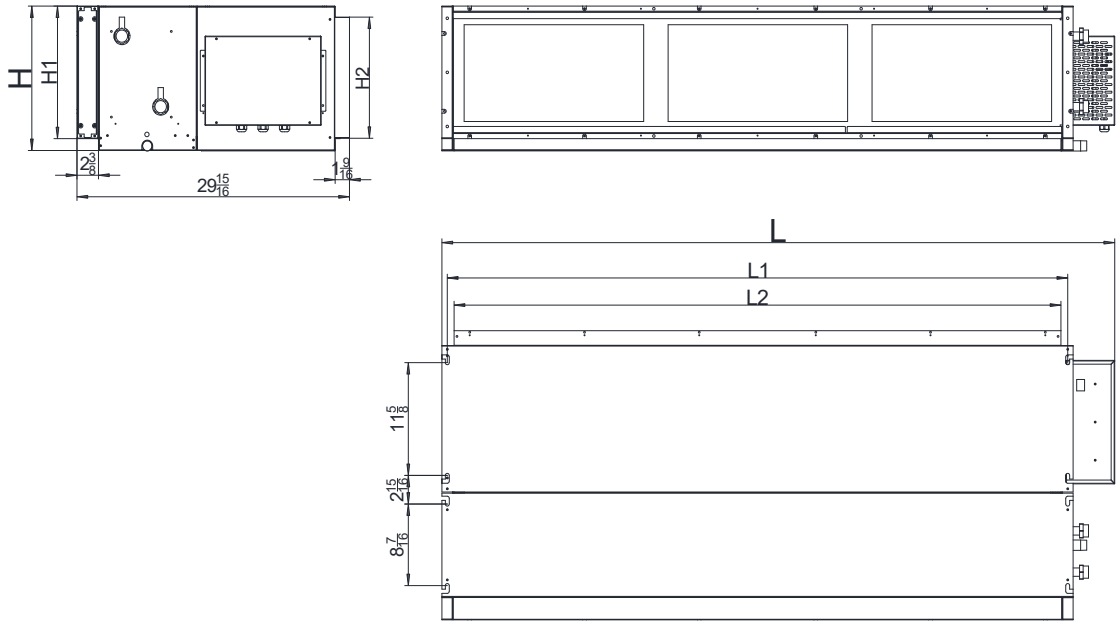
iFCHD(4R+2)-[Size]-P~-AECM					1000	1200	1600	2000	2400
Unit Configuration		Configuration			4-pipe				
		Number Of Fan Blowers			Twin			Four	
		Power Supply		(V/Ph/Hz)	115/1/ 60 or 220/1/60				
		Operation Control			~S: Complete controller with VAV&VWV control logic				
					~W: EC motor driver suitable for connection to EC modulating thermostat				
Performance Data	Air	Total Air Flow	H	CFM	1020	1224	1564	1881	2341
			M		604	974	1145	1475	1993
			L		242	360	693	587	1121
		External Static Pressure	H	in.wg	0.48	0.48	0.48	0.48	0.48
			M		0.48	0.48	0.48	0.48	0.48
			L		0.28	0.28	0.28	0.28	0.28
	Cooling	Cooling Capacity	H	BTU/Hr	32021	38925	51087	62019	74635
			M		21410	32736	39795	51207	65498
			L		9968	14786	26865	24224	41884
		Sensible Cooling Capacity	H		21596	26046	33986	41153	49848
			M		14120	21659	26177	33719	43435
			L		6551	9718	17275	15860	27115
	Heating	Heating Capacity	H	BTU/Hr	45073	53804	70093	85160	103508
			M		30137	45248	54600	70314	90837
			L		14030	20437	36860	33263	58087
		Max. Electric Heater Capacity		kW	4	5	6	6	6
	Sound	Sound Pressure Level (outlet)		dB(A)	62/59/51	65/63/53	67/64/56	68/66/57	71/69/60
		Sound Pressure Level(Inlet + Radiated)			59/56/48	62/60/50	64/61/53	65/63/54	68/66/57
		Sound Power Level (outlet)			71/68/60	74/72/62	76/73/65	77/75/66	80/78/69
		Sound Power Level(Inlet + Radiated)			68/65/57	71/69/59	73/70/62	74/72/63	77/75/66
	Electrical	Fan Motor Power	H	W	280	360	480	580	700
			M		180	260	350	450	540
			L		60	66	120	130	160
	Hydraulic	Cooling Water Flow Rate	H	GPM	6.32	7.69	10.09	12.25	14.74
			M		4.23	6.46	7.86	10.11	12.93
			L		1.97	2.92	5.31	4.78	8.27
		Cooling Pressure Drop	H	ft.wg	6.94	10.86	12.59	12.61	9.02
			M		3.36	7.95	8.03	8.93	7.13
			L		0.85	1.9	3.96	2.32	3.19
		Heating Water Flow Rate	H	GPM	2.25	2.68	3.49	4.24	5.16
			M		1.50	2.25	2.72	3.50	4.52
			L		0.70	1.02	1.84	1.66	2.89
		Heating Pressure Drop	H	ft.wg	1.92	2.94	2.03	3.41	2.47
			M		0.93	2.15	1.29	2.42	1.95
			L		0.23	0.51	0.64	0.63	0.87
		cooling water content		gal	0.843	0.978	1.352	1.668	1.906
		heating water content			0.422	0.489	0.676	0.834	0.953
Construction and Packing Data		Chilled Water Connections	Type		Socket (NPT Threaded)				
			In	inch	NPT3/4"			NPT1"	
			Out						
		Hot Water Connections	In		NPT3/4"				
			Out						
		Condensate Drainage Connection			3/4"				
		Dimensions	L	inch	48 1/4	54 3/16	62 1/16	73 7/8	73 7/8
			W		29 15/16	29 15/16	29 15/16	29 15/16	29 15/16
			H		13 3/4	13 3/4	14 15/16	14 15/16	16 15/16
		Net Weight		lbs	99	110	128	143	165

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

Dimensional drawings



Model	L	L1	L2	H	H1	H2
iFCHD-1000-P	48 1/4”	42 1/2”	41 5/16”	13 3/4”	12 5/8”	11 7/16”
iFCHD-1200-P	54 3/16”	48 7/16”	47 1/4”	13 3/4”	12 5/8”	11 7/16”
iFCHD-1600-P	62 1/16”	56 5/16”	55 1/8”	14 15/16”	13 3/4”	12 5/8”
iFCHD-2000-P	73 7/8”	68 1/8”	66 15/16”	14 15/16”	13 3/4”	12 5/8”
iFCHD-2400-P	73 7/8”	68 1/8”	66 15/16”	16 15/16”	15 3/4”	14 9/16”

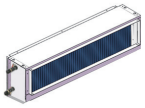
All dimensions are approximate and within 1/16 of an inch of those indicated.

Technical Data



iFCHD

Accessories (Optional Part)

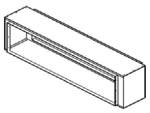
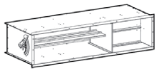
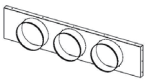
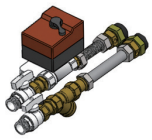
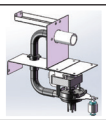
Accessories	Photo	Code	Description
1.Heating coil modular		BCP-COIL(L1)-iFCHD-001	Additional 1-row heating coil module for iFCHD-1000
		BCP-COIL(L1)-iFCHD-002	Additional 1-row heating coil module for iFCHD-1200
		BCP-COIL(L1)-iFCHD-003	Additional 1-row heating coil module for iFCHD-1600
		BCP-COIL(L1)-iFCHD-004	Additional 1-row heating coil module for iFCHD-2000
		BCP-COIL(L1)-iFCHD-005	Additional 1-row heating coil module for iFCHD-2400
		BCP-COIL(L2)-iFCHD-001	Additional 2-row heating coil module for iFCHD-1000
		BCP-COIL(L2)-iFCHD-002	Additional 2-row heating coil module for iFCHD-1200
		BCP-COIL(L2)-iFCHD-003	Additional 2-row heating coil module for iFCHD-1600
		BCP-COIL(L2)-iFCHD-004	Additional 2-row heating coil module for iFCHD-2000
		BCP-COIL(L2)-iFCHD-005	Additional 2-row heating coil module for iFCHD-2400
2.Drain pan		BCP-SSDP-iFCHD-001	Stainless steel drain-pan for iFCHD-1000
		BCP-SSDP-iFCHD-002	Stainless steel drain-pan for iFCHD-1200
		BCP-SSDP-iFCHD-003	Stainless steel drain-pan for iFCHD-1600
		BCP-SSDP-iFCHD-004	Stainless steel drain-pan for iFCHD-2000
		BCP-SSDP-iFCHD-005	Stainless steel drain-pan for iFCHD-2400
3.E-heater modular		BCP25-EH-SSR-iFCHD-001	4kW electric heat module (220V/1Ph) with SSR for iFCHD-1000
		BCP25-EH-SSR-iFCHD-002	5kW electric heat module (220V/1Ph) with SSR for iFCHD-1200
		BCP25-EH-SSR-iFCHD-003	6kW electric heat module (220V/1Ph) with SSR for iFCHD-1600
		BCP25-EH-SSR-iFCHD-004	6kWelectric heat module (220V/1Ph) with SSR for iFCHD-2000
		BCP25-EH-SSR-iFCHD-005	6kW electric heat module (220V/1Ph)for with SSR iFCHD-2400
		BCP25-EH-SSR-iFCHD-001	4kW electric heat module (220V/1Ph) with Contact Relay for iFCHD-1000
		BCP25-EH-SSR-iFCHD-002	5kW electric heat module (220V/1Ph) with Contact Relay for iFCHD-1200
		BCP25-EH-SSR-iFCHD-003	6kW electric heat module (220V/1Ph) with Contact Relay for iFCHD-1600
		BCP25-EH-SSR-iFCHD-004	6kWelectric heat module (220V/1Ph) with Contact Relay for iFCHD-2000
		BCP25-EH-SSR-iFCHD-005	6kW electric heat module (220V/1Ph)for with Contact Relay iFCHD-2400
		BCP25-EH-CR400-iFCHD-001	6kW electric heat module (380V/3Ph) with Contact Relay for iFCHD-1000
		BCP25-EH-CR400-iFCHD-002	6kW electric heat module (380V/3Ph) with Contact Relay for iFCHD-1200
		BCP25-EH-CR400-iFCHD-003	9kW electric heat module (380V/3Ph) with Contact Relay for iFCHD-1600
		BCP25-EH-CR400-iFCHD-004	9kWelectric heat module (380V/3Ph) with Contact Relay for iFCHD-2000
		BCP25-EH-CR400-iFCHD-005	9kW electric heat module (380V/3Ph)for with Contact Relay iFCHD-2400
4.Merv 14		BCP25-M14-iFCHD-001	Merv 14 filter module for iFCHD-1000
		BCP25-M14-iFCHD-002	Merv 14 filter module for iFCHD-1200
		BCP25-M14-iFCHD-003	Merv 14 filter module for iFCHD-1600
		BCP25-M14-iFCHD-004	Merv 14 filter module for iFCHD-2000
		BCP25-M14-iFCHD-005	Merv 14 filter module for iFCHD-2400
5.Merv 8		AA14-M8-iFCHD-001	Merv 8 or G4 filter for iFCHD-1000
		AA14-M8-iFCHD-002	Merv 8 or G4 filter for iFCHD-1200
		AA14-M8-iFCHD-003	Merv 8 or G4 filter for iFCHD-1600
		AA14-M8-iFCHD-004	Merv 8 or G4 filter for iFCHD-2000
		AA14-M8-iFCHD-005	Merv 8 or G4 filter for iFCHD-2400

Technical Data



● iFCHD

Accessories (Optional Part)

Accessories	Photo	Code	Description
6.Duct connection parts		BCP-PLENUM-iFCHD-001	Standard plenum for return air or air discharge for iFCHD-1000
		BCP-PLENUM-iFCHD-002	Standard plenum for return air or air discharge for iFCHD-1200
		BCP-PLENUM-iFCHD-003	Standard plenum for return air or air discharge for iFCHD-1600
		BCP-PLENUM-iFCHD-004	Standard plenum for return air or air discharge for iFCHD-2000
		BCP-PLENUM-iFCHD-005	Standard plenum for return air or air discharge for iFCHD-2400
		BCP-DAMPER-iFCHD-001	2-way inlet plenum with adjustable damper for iFCHD-1000
		BCP-DAMPER-iFCHD-002	2-way inlet plenum with adjustable damper for iFCHD-1200
		BCP-DAMPER-iFCHD-003	2-way inlet plenum with adjustable damper for iFCHD-1600
		BCP-DAMPER-iFCHD-004	2-way inlet plenum with adjustable damper for iFCHD-2000
		BCP-DAMPER-iFCHD-005	2-way inlet plenum with adjustable damper for iFCHD-2400
		BCP-ROUND-iFCHD-001	Discharge plenum for round ducting for iFCHD-1000
		BCP-ROUND-iFCHD-002	Discharge plenum for round ducting for iFCHD-1200
		BCP-ROUND-iFCHD-003	Discharge plenum for round ducting for iFCHD-1600
		BCP-ROUND-iFCHD-004	Discharge plenum for round ducting for iFCHD-2000
		BCP-ROUND-iFCHD-005	Discharge plenum for round ducting for iFCHD-2400
7. Valve kit		BCP25-RCS-VALVE-iFCHD-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-007	24VAC 1" Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-008	24VAC 1" Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-009	24VAC 3/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-010	24VAC 3/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-011	24VAC 1" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHD-012	24VAC 1" Motorized 3-way ball valve kit
8.Pump kit		BCP25-PUMP-iFCHD-001	220V pump kit
		BCP25-PUMP-iFCHD-002	115V pump kit

High ESP Horizontal Ceiling Concealed

iHAHU-AECM



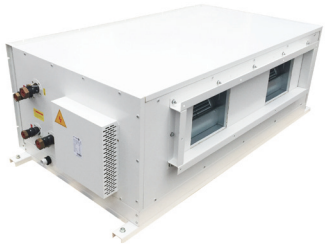
iHAHU units are ideal air-treatment terminal unit for installations where ducted air distribution is necessary. The units are designed for installation in suspended ceilings or lining walls and are characterized by their compactness and extremely low noise obtained double skins case panel.

» Performance in accordance to Standard AHRI 440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard; Merv 8 class filter as optional;
» Steel with RAL9010 painting
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
» 6-way valve as optional;

iHAHU - 400 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to EC modulating thermostat
X	220V/1P/60Hz EC motor ; 480V/3P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
200~800	Unit Sizes. Maximum ESP: 0.5 in.wg Unit with forward curved blade fan;
200~800-B	Unit Sizes. Maximum ESP:1.5in.wg Unit with backward centrifugal fan;
iHAHU	Horizontal Air Handling Unit
5R	2 pipes 5 rows
6R	2 pipes 6 rows
5R+2	4 pipes with 5 rows cooling and 2 rows heating

Technical Data



iHAHU

iHAHU(5R)-V-AECM

Product range: iHAHU(5R)-V-AECM 5-row coil 2-pipe with EC motor(s)

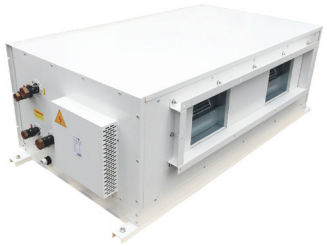
iHAHU(5R)-[Size]-V~-AECM					200	300	400	600	800
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220/1/60				
Performance Data	Air	Total Air Flow	H	CFM	1307	1859	2408	3718	4815
			M		1125	1590	2056	3180	4112
			L		801	1127	1456	2255	2912
		External Static Pressure	H/M/L	in.wg	0.48				
	Cooling	Cooling Capacity	H	Btu/Hr	45574	64783	81212	125381	157759
			M		40584	57385	71704	111062	139288
			L		31357	43805	54744	84781	106344
		Sensible Cooling Capacity	H	Btu/Hr	30297	42889	54145	83330	105541
			M		26813	37618	47261	73088	92122
			L		20387	28353	35684	55088	69557
	Heating	Heating Capacity	H	Btu/Hr	70847	100709	126248	194910	245244
			M		63089	89208	111467	172652	216530
			L		48746	68098	85102	131795	165316
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level(Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	412	850	1015	1700	2030
			M		375	650	850	1300	1530
			L		320	350	500	700	1000
		Max. current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	9	12.79	16.04	24.76	31.15
			M		8.01	11.33	14.16	21.93	27.51
			L		6.19	8.65	10.81	16.74	21
		Cooling Pressure Drop	H	ft.wg	7.98	17.22	8.05	12.98	11.67
			M		6.47	13.84	6.44	10.43	9.33
			L		4.07	8.51	3.96	6.42	5.74
		Heating Water Flow Rate	H	GPM	9	12.79	16.04	24.76	31.15
			M		8.01	11.33	14.16	21.93	27.51
			L		6.19	8.65	10.81	16.74	21
		Heating Pressure Drop	H	ft.wg	7.18	15.5	7.25	11.68	10.5
			M		5.83	12.46	5.79	9.39	8.4
			L		3.66	7.66	3.56	5.77	5.16
		Water content		US gal	1.95	2.41	2.88	3.33	4.01
Construction and Packing Data		Water	In	inch	1 1/4”				
		Connections	Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data

● iHAHU



iHAHU(6R)-V-AECM

Product range:iHAHU(6R)-V-AECM 6-row coil 2-pipe with EC motor(s)

iHAHU(6R)-[Size]-V~-AECM					200	300	400	600	800
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220/1/60				
Performance Data	Air	Total Air Flow	H	CFM	1242	1812	2364	3625	4728
			M		1084	1561	2028	3122	4057
			L		779	1111	1441	2223	2882
		External Static Pressure	H/M/L	in.wg	0.48				
	Cooling	Cooling Capacity	H	Btu/Hr	37321	54185	70818	106879	138241
			M		33592	48257	62900	95186	122785
			L		26161	36983	48444	72948	94566
		Sensible Cooling Capacity	H	Btu/Hr	25963	37586	49054	74090	95851
			M		23183	33111	43077	65270	84171
			L		17816	25093	32829	49464	64148
	Heating	Heating Capacity	H	Btu/Hr	58018	84232	110089	166148	214901
			M		52220	75017	97781	147971	190875
			L		40669	57492	75308	113402	147007
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level(Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	412	850	1015	1700	2030
			M		375	650	850	1300	1530
			L		320	350	500	700	1000
		Max. current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.97	7.22	9.44	14.24	18.42
			M		4.48	6.43	8.38	12.68	16.36
			L		3.49	4.93	6.45	9.72	12.6
		Cooling Pressure Drop	H	ft.wg	3.3	7.35	13.41	10.57	18.38
			M		2.73	5.96	10.83	8.58	14.85
			L		1.74	3.69	6.77	5.32	9.28
		Heating Water Flow Rate	H	GPM	4.97	7.22	9.44	14.24	18.42
			M		4.48	6.43	8.38	12.68	16.36
			L		3.49	4.93	6.45	9.72	12.6
		Heating Pressure Drop	H	ft.wg	2.97	6.61	12.07	9.52	16.54
			M		2.46	5.37	9.75	7.72	13.36
			L		1.57	3.32	6.09	4.78	8.35
		Water content		US gal	2.9	3.6	4.3	5.0	6.0
Construction and Packing Data		Water Connections	In	inch	1 1/4”				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

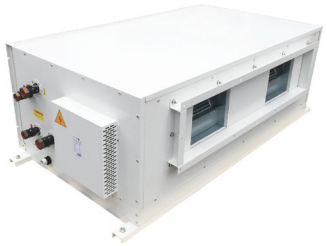
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data

iHAHU



iHAHU(5R+2)-P-AECM

Product range: iHAHU(5R+2)-P-AECM 4-pipe Unit with 5-row Cooling and 2-row Heating Coils and EC motor(s)

iHAHU(5R+2)-[Size]-P~-AECM					200	300	400	600	800
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220/1/60				
Performance Data	Air	Total Air Flow	H	CFM	1176	1765	2319	3529	4638
			M		1043	1531	2000	3062	4001
			L		756	1095	1426	2191	2851
		External Static Pressure	H/M/L	in.wg	0.48				
	Cooling	Cooling Capacity	H	Btu/Hr	41831	62009	78843	120012	153156
			M		38400	55974	70457	108331	136866
			L		29912	42735	54058	82708	105011
		Sensible Cooling Capacity	H	Btu/Hr	27704	40972	52495	79605	102324
			M		25207	36600	46384	71109	90413
			L		19415	27634	35220	53691	68652
	Heating	Heating Capacity	H	Btu/Hr	50705	73232	94434	142327	181021
			M		46546	66105	84389	128474	161766
			L		36257	50469	64748	98087	124116
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level(Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	412	850	1015	1700	2030
			M		375	650	850	1300	1530
			L		320	350	500	700	1000
		Max. current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	8.26	12.25	15.57	23.7	30.24
			M		7.58	11.05	13.91	21.39	27.03
			L		5.91	8.44	10.68	16.33	20.74
		Cooling Pressure Drop	H	ft.wg	6.84	15.91	7.64	11.99	11.07
			M		5.86	13.23	6.24	9.97	9.04
			L		3.74	8.14	3.87	6.14	5.61
		Heating Water Flow Rate	H	GPM	2.53	3.65	4.7	7.09	9.02
			M		2.32	3.29	4.2	6.4	8.06
			L		1.81	2.51	3.23	4.89	6.18
		Heating Pressure Drop	H	ft.wg	1.41	3.25	1.57	4.62	2.54
			M		1.21	2.7	1.28	3.84	2.07
			L		0.77	1.66	0.8	2.36	1.29
		Cooling Coil Water content		US gal	1.95	2.41	2.88	3.33	4.01
		Heat Coil Water content			0.97	1.20	1.44	1.66	2.01
Construction and Packing Data		Cooling Water Connections	In	inch	1 1/4”				
			Out						
		Heating Water Connections	In		1”				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

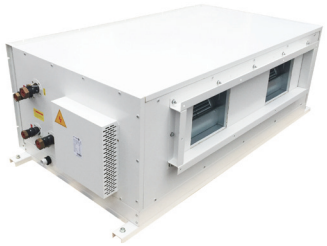
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

Technical Data

● MHAHU



iHAHU(6R+2)-P-AECM

Product range: iHAHU(6R+2)-P-AECM 4-pipe Unit with 6-row Cooling and 2-row Heating Coils and EC motor(s)

iHAHU(6R+2)-[Size]-P~-AECM					200	300	400	600	800
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220/1/60				
Performance Data	Air	Total Air Flow	H	CFM	1063	1684	2242	3367	4485
			M		976	1483	1955	2966	3910
			L		723	1071	1403	2142	2806
		External Static Pressure	H/M/L	in.wg	0.48				
	Cooling	Cooling Capacity	H	Btu/Hr	33059	51418	67673	101422	132101
			M		31124	46593	61245	91904	119554
			L		24619	36068	47230	71143	92196
		Sensible Cooling Capacity	H	Btu/Hr	22772	35545	46706	70068	91262
			M		21334	31894	41867	62871	81807
			L		16729	24449	31976	48194	62479
	Heating	Heating Capacity	H	Btu/Hr	46924	71048	91596	138082	175581
			M		44178	64380	82896	125122	158903
			L		34944	49837	63927	96858	122542
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level(Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	412	850	1015	1700	2030
			M		375	650	850	1300	1530
			L		320	350	500	700	1000
		Max. current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.4	6.85	9.02	13.51	17.6
			M		4.15	6.21	8.16	12.24	15.93
			L		3.28	4.81	6.29	9.48	12.28
		Cooling Pressure Drop	H	ft.wg	2.65	6.68	12.36	9.62	16.94
			M		2.38	5.6	10.33	8.06	14.15
			L		1.56	3.53	6.47	5.08	8.86
		Heating Water Flow Rate	H	GPM	2.34	3.54	4.56	6.88	8.75
			M		2.2	3.21	4.13	6.23	7.92
			L		1.74	2.48	3.18	4.82	6.1
		Heating Pressure Drop	H	ft.wg	1.23	3.07	1.49	4.37	2.4
			M		1.1	2.57	1.24	3.66	2.01
			L		0.72	1.62	0.78	2.31	1.26
		Cooling Coil Water content		US gal	2.9	3.6	4.3	5.0	6.0
		Heat Coil Water content			0.97	1.20	1.44	1.66	2.01
Construction and Packing Data		Cooling Water Connections	In	inch	1 1/4”				
			Out						
		Heating Water Connections	In		1”				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

Technical Data



● iHAHU-B

iHAHU(5R)-B-V-AECM

Product range: iHAHU(5R)-B-V-AECM 5-row coil 2-pipe with EC motor(s)

iHAHU(5R)-[Size]-V~-AECM					200B	300B	400B	600B	800B
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1				
		Power supply (V/Ph/Hz)			220V/1/60	380~440/3/60			
Performance Data	Air	Total Air Flow	H	CFM	1244	1757	2491	3576	4857
			M		1141	1415	2124	2935	4446
			L		807	1002	1502	2078	3141
		External Static Pressure	H/M/L	in.wg	1.0				
	Cooling	Cooling Capacity	H	Btu/Hr	43703	62009	82989	121801	158910
			M		40896	52567	73512	104563	148554
			L		31357	40058	56116	79599	113005
		Sensible Cooling Capacity	H	Btu/Hr	29001	40972	55383	80847	106345
			M		27043	34224	48576	68471	98957
			L		20387	25797	36612	51596	74080
	Heating	Heating Capacity	H	Btu/Hr	67938	96396	129011	189346	247032
			M		63574	81717	114278	162547	230934
			L		48746	62272	87235	123741	175672
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	445	511	800	1400	2580
			M		321	369	578	1011	1864
			L		111	127	200	350	645
		Max. current		A	2.02	1.34	2.11	3.68	6.79
	Hydraulic	Cooling Water Flow Rate	H	GPM	8.63	12.25	16.39	24.05	31.38
			M		8.08	10.38	14.52	20.65	29.34
			L		6.19	7.91	11.08	15.72	22.32
		Cooling Pressure Drop	H	ft.wg	7.4	15.91	8.37	12.32	11.83
			M		6.56	11.82	6.73	9.36	10.47
			L		4.07	7.25	4.14	5.73	6.4
		Heating Water Flow Rate	H	GPM	8.63	12.25	16.39	24.05	31.38
			M		8.08	10.38	14.52	20.65	29.34
			L		6.19	7.91	11.08	15.72	22.32
		Heating Pressure Drop	H	ft.wg	6.66	14.32	7.54	11.08	10.64
			M		5.91	10.64	6.06	8.42	9.43
			L		3.66	6.52	3.73	5.15	5.76
		Water content		US gal	1.95	2.41	2.88	3.33	4.01
Construction and Packing Data		Water Connections	In	inch	1 1/4”				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.

Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data



● iHAHU-B

iHAHU(6R)-B-V-AECM

Product range: iHAHU(6R)-B-V-AECM 6-row coil 2-pipe with EC motor(s)

iHAHU(6R)-[Size]-V~-AECM					200B	300B	400B	600B	800B
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1				
		Power supply (V/Ph/Hz)			220/1/60	380~440/3/60			
Performance Data	Air	Total Air Flow	H	CFM	1223	1723	2459	3509	4826
			M		1126	1394	2102	2893	4424
			L		799	990	1490	2054	3129
		External Static Pressure	H/M/L	in.wg	1.0				
	Cooling	Cooling Capacity	H	Btu/Hr	36789	52209	72914	104540	140287
			M		34658	44513	64528	90262	131078
			L		26470	33780	49658	68435	100490
		Sensible Cooling Capacity	H	Btu/Hr	25576	36154	50573	72397	97334
			M		24005	30373	44287	61671	90474
			L		18034	22784	33683	46253	68319
	Heating	Heating Capacity	H	Btu/Hr	57189	81161	113349	162513	218083
			M		53877	69197	100311	140317	203767
			L		41149	52513	77195	106385	156216
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	445	511	800	1400	2580
			M		321	369	578	1011	1864
			L		111	127	200	350	645
		Max. current		A	2.02	1.34	2.11	3.68	6.79
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.9	6.96	9.71	13.93	18.69
			M		4.62	5.93	8.6	12.03	17.46
			L		3.53	4.5	6.62	9.12	13.39
		Cooling Pressure Drop	H	ft.wg	3.22	6.87	14.14	10.16	18.87
			M		2.89	5.16	11.34	7.8	16.7
			L		1.78	3.14	7.08	4.74	10.35
		Heating Water Flow Rate	H	GPM	4.9	6.96	9.71	13.93	18.69
			M		4.62	5.93	8.6	12.03	17.46
			L		3.53	4.5	6.62	9.12	13.39
		Heating Pressure Drop	H	ft.wg	2.9	6.18	12.72	9.14	16.99
			M		2.6	4.64	10.21	7.02	15.03
			L		1.6	2.82	6.37	4.27	9.32
		Water content		US gal	2.9	3.6	4.3	5.0	6.0
Construction and Packing Data		Water Connections	In Out	Inch	1 1/4”				
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data



● iHAHU-B

iHAHU(5R+2)-B-P-AECM

Product range: iHAHU(5R+2)-B-P-AECM 4-pipe Unit with 5-row Cooling and 2-row Heating Coils and EC motor(s)

iHAHU(5R+2)-[Size]-P~-AECM					200B	300B	400B	600B	800B
Unit configuration		Configuration			4 pipes				
		Number of Fan Blowers			1				
		Power supply (V/Ph/Hz)			220/1/60	380~440/3/60			
Performance Data	Air	Total Air Flow	H	CFM	1187	1663	2401	3388	4771
			M		1102	1358	2066	2820	4387
			L		786	971	1470	2014	3109
		External Static Pressure	H/M/L	in.wg	1.0				
	Cooling	Cooling Capacity	H	Btu/Hr	42143	59235	80620	116432	156608
			M		39960	51082	72327	101737	146253
			L		30635	38988	55430	77527	113005
		Sensible Cooling Capacity	H	Btu/Hr	27920	38976	53733	77045	104737
			M		26354	33205	47699	66493	97248
			L		19901	25039	36148	50122	74080
	Heating	Heating Capacity	H	Btu/Hr	51083	69956	96562	138082	185101
			M		48436	60328	86630	120654	172861
			L		37133	46044	66391	91943	133565
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power input	H	W	445	511	800	1400	2580
			M		321	369	578	1011	1864
			L		111	127	200	350	645
		Max. current		A	2.02	1.34	2.11	3.68	6.79
	Hydraulic	Cooling Water Flow Rate	H	GPM	8.32	11.7	15.92	22.99	30.93
			M		7.89	10.09	14.28	20.09	28.88
			L		6.05	7.7	10.95	15.31	22.32
		Cooling Pressure Drop	H	ft.wg	6.93	14.65	7.95	11.36	11.52
			M		6.3	11.23	6.54	8.91	10.18
			L		3.9	6.9	4.05	5.46	6.4
		Heating Water Flow Rate	H	GPM	2.54	3.48	4.81	6.88	9.22
			M		2.41	3.01	4.32	6.01	8.61
			L		1.85	2.29	3.31	4.58	6.65
		Heating Pressure Drop	H	ft.wg	1.43	2.99	1.64	4.37	2.64
			M		1.3	2.29	1.35	3.43	2.33
			L		0.8	1.41	0.83	2.1	1.47
		Cooling Coil Water content		US gal	1.95	2.41	2.88	3.33	4.01
		Heat Coil Water content			0.97	1.20	1.44	1.66	2.01
Construction and Packing Data		Cooling Water Connections	In	inch	1 1/4"				
			Out						
		Heating Water Connections	In		1"				
			Out						
		Condensate Drainage Connection		inch	1"				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

Technical Data

iHAHU-B



iHAHU(6R+2)-B-P-AECM

Product range: iHAHU(6R+2)-B-P-ECM 4-pipe Unit with 6-row Cooling and 2-row Heating Coils and EC motor(s)

iHAHU(6R+2)-[Size]-P~-AECM					200B	300B	400B	600B	800B
Unit configuration		Configuration			4 pipes				
		Number of Fan Blowers			1				
		Power supply (V/Ph/Hz)			220/1/60	380~440/3/60			
Performance Data	Air	Total Air Flow	H	CFM	1157	1611	2352	3284	4724
			M		1083	1329	2037	2760	4357
			L		776	956	1455	1984	3093
		External Static Pressure	H/M/L	in.wg	1.0				
	Cooling	Cooling Capacity	H	Btu/Hr	35457	49442	70293	99083	138241
			M		33592	42786	62900	86980	130055
			L		25853	32865	48444	66631	99305
		Sensible Cooling Capacity	H	Btu/Hr	24609	34024	48675	68269	95851
			M		23183	29156	43077	59272	89686
			L		17599	22104	32829	44913	67485
	Heating	Heating Capacity	H	Btu/Hr	50327	68318	95143	134898	183741
			M		47680	59121	85136	118419	172861
			L		36695	45412	65570	90715	131990
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Max. Power input	H	W	445	511	800	1400	2580
			M		321	369	578	1011	1864
			L		111	127	200	350	645
		Max. current		A	2.02	1.34	2.11	3.68	6.79
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.72	6.59	9.37	13.2	18.42
			M		4.48	5.7	8.38	11.59	17.33
			L		3.44	4.38	6.45	8.88	13.23
		Cooling Pressure Drop	H	ft.wg	3.01	6.23	13.23	9.23	18.38
			M		2.73	4.8	10.83	7.3	16.47
			L		1.7	2.99	6.77	4.52	10.13
		Heating Water Flow Rate	H	GPM	2.51	3.4	4.74	6.72	9.15
			M		2.38	2.95	4.24	5.9	8.61
			L		1.83	2.26	3.27	4.52	6.57
		Heating Pressure Drop	H	ft.wg	1.39	2.86	1.59	4.19	2.6
			M		1.26	2.21	1.3	3.32	2.33
			L		0.79	1.37	0.81	2.05	1.44
		Cooling Coil Water content		US gal	2.9	3.6	4.3	5.0	6.0
		Heat Coil Water content			0.97	1.20	1.44	1.66	2.01
Construction and Packing Data		Cooling Water Connections	In	inch	1 1/4”				
			Out						
		Heating Water Connections	In		1”				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	42 1/2	503/8	581/4	681/8	76
			W		441/8				46 7/8
			H		25 3/16			29 11/16	

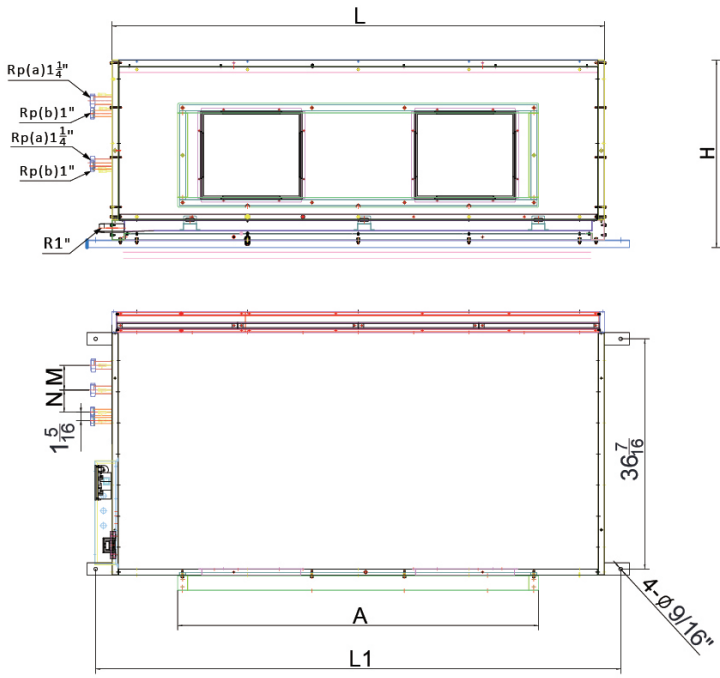
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

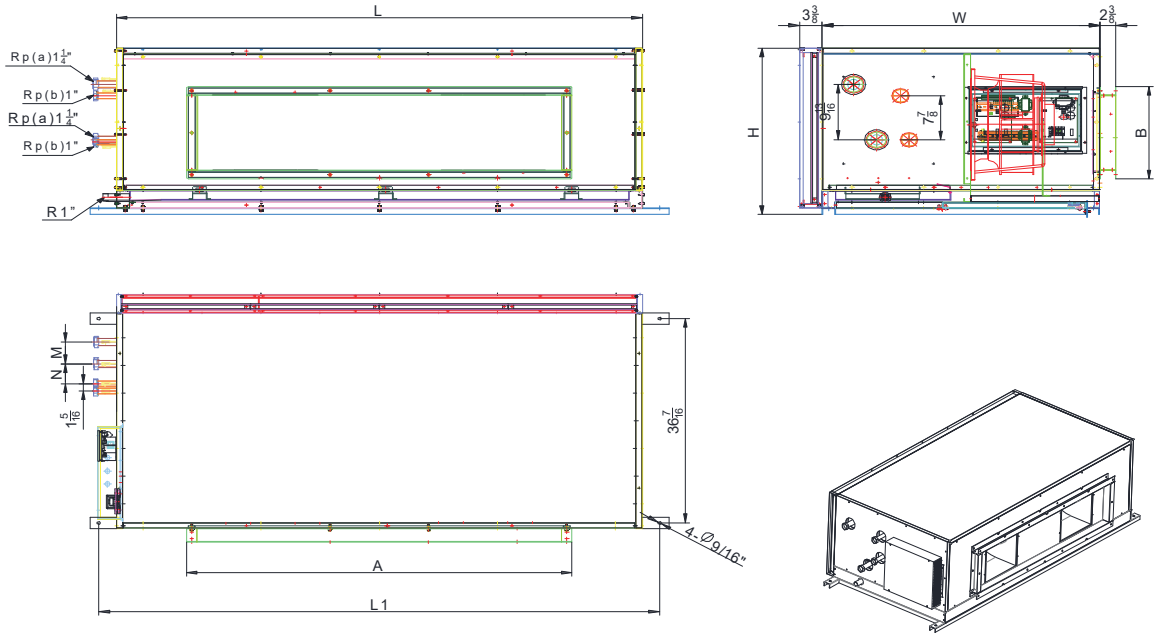
b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

Technical Data

Dimensional drawings-iHAHU



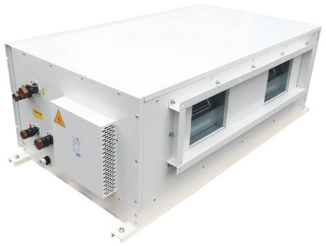
Dimensional drawings-iHAHU-B



Model	L	L1	W	H	A	B	M (5R)	M (6R)	N	Rp(a)Cooling Water Connections	Rp(b)Heating Water Connections
iHAHU/-B-200	42 1/2	47 5/8	38 3/8	25 3/16	26 3/4	13 1/4	3 1/2”	4 1/4”	3 9/16”	1-1/4”	1”
iHAHU/-B-300	50 3/8	55 1/2	38 3/8	25 3/16	30 11/16	14 5/8					
iHAHU/-B-400	58 1/4	63 3/8	38 3/8	25 3/16	36 5/8	14 5/8					
iHAHU/-B-600	68 1/8	73 1/4	38 3/8	29 11/16	52 3/8	14 5/8					
iHAHU/-B-800	76	81 1/8	41 1/8	29 11/16	57 1/16	16 1/2					

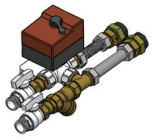
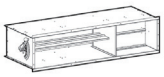
All dimensions are approximate within 1/16 of an inch of those indicated.

Technical Data



iHAHU

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Merv 8		AA14-M8-HAHU-EC-001	Merv 8 or G4 filter for for iHAHU-200
		AA14-M8-HAHU-EC-002	Merv 8 or G4 filter for for iHAHU-300
		AA14-M8-HAHU-EC-003	Merv 8 or G4 filter for for iHAHU-400
		AA14-M8-HAHU-EC-004	Merv 8 or G4 filter for for iHAHU-600
		AA14-M8-HAHU-EC-005	Merv 8 or G4 filter for for iHAHU-800
2.Merv 14		BCP-M14-HAHU-EC-001	Merv 14 or F8 filter for for iHAHU-200
		BCP-M14-HAHU-EC-002	Merv 14 or F8 filter for for iHAHU-300
		BCP-M14-HAHU-EC-003	Merv 14 or F8 filter for for iHAHU-400
		BCP-M14-HAHU-EC-004	Merv 14 or F8 filter for for iHAHU-600
		BCP-M14-HAHU-EC-005	Merv 14 or F8 filter for for iHAHU-800
3.Vave kit		BCP25-RCS-VALVE-iHAHU-003	24VAC 1-1/4” Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-004	24VAC 1-1/4” Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-005	24VAC 1-1/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-006	24AC 1-1/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-009	24VAC 1” Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-010	24VAC 1” Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-011	24VAC 1" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iHAHU-012	24AC 1" Motorized 3-way ball valve kit
4.E-heater modular		BCP25-EH-CR400-iHAHU-EC-001	Electrical heater module maximum 4.5kw, 380V/3Ph for iHAHU-200
		BCP25-EH-CR400-iHAHU-EC-002	Electrical heater module maximum 6.0kw, 380V/3Ph for iHAHU-300
		BCP25-EH-CR400-iHAHU-EC-003	Electrical heater module maximum 7.5kw, 380V/3Ph for iHAHU-400
		BCP25-EH-CR400-iHAHU-EC-004	Electrical heater module maximum 9.0kw, 380V/3Ph for iHAHU-600
		BCP25-EH-CR400-iHAHU-EC-005	Electrical heater module maximum 9.0kw, 380V/3Ph for iHAHU-800
5.Intake plenum		BCP-PLENUM-HAHU-EC-001	two-way intake plenum with on/off damper for iHAHU-200
		BCP-PLENUM-HAHU-EC-002	two-way intake plenum with on/off damper for iHAHU-300
		BCP-PLENUM-HAHU-EC-003	two-way intake plenum with on/off damper for iHAHU-400
		BCP-PLENUM-HAHU-EC-004	two-way intake plenum with on/off damper for iHAHU-600
		BCP-PLENUM-HAHU-EC-005	two-way intake plenum with on/off damper for iHAHU-800
		BCP-PLENUM-HAHU-EC-006	two-way intake plenum with modulating damper for iHAHU-200
		BCP-PLENUM-HAHU-EC-007	two-way intake plenum with modulating damper for iHAHU-300
		BCP-PLENUM-HAHU-EC-008	two-way intake plenum with modulating damper for iHAHU-400
		BCP-PLENUM-HAHU-EC-009	two-way intake plenum with modulating damper for iHAHU-600
		BCP-PLENUM-HAHU-EC-010	two-way intake plenum with modulating damper for iHAHU-800
6.Drain Pan		BCP-SSDP-HAHU-001	Stainless steel drain pan for iHAHU-200
		BCP-SSDP-HAHU-002	Stainless steel drain pan for iHAHU-300
		BCP-SSDP-HAHU-003	Stainless steel drain pan for iHAHU-400
		BCP-SSDP-HAHU-004	Stainless steel drain pan for iHAHU-600
		BCP-SSDP-HAHU-005	Stainless steel drain pan for iHAHU-800

Vertical ductable unit

iVAHU-AECM



iVAHU units are ideal air-treatment terminal unit for installations where ducted air distribution is necessary. The units are designed for vertical installation on the floor and are characterized by their compactness and extremely low noise obtained double skins case panel.

» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 4 class filter as standard; Merv 8 class filter as optional;
» Steel with RAL9010 painting
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
» 6-way valve as optional;

iVAHU(5R) - 200 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to EC modulating thermostat
X	220V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
200~800	Unit Sizes
5R+2	4 pipes with 5 rows cooling and 2 rows heating
5R	2 pipes 5 rows
iVAHU	Vertical Air Handling Unit

Technical Data



● iVAHU

iVAHU(5R)-V-AECM

Product range: iVAHU(5R)-V-AECM 5-row coil 2-pipe with EC motor(s)

iVAHU(5R)-[Size]-V~-AECM					200	300	400	600	800
Unit configuration		Configuration			2 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220~240/1/ 60Hz				
Performance Data	**Air**	Air flow	H	CFM	1275	1836	2386	3672	4772
			M		1098	1571	2038	3141	4075
			L		782	1113	1443	2227	2886
		ESP	H	in.wg	0.5				
			M						
			L						
	Cooling	Total Cooling Capacity	H	Btu/Hr	44333	63280	81181	117713	155814
			M		39376	56407	72203	104928	138582
			L		30425	42878	55125	79761	105804
		Sensible Cooling Capacity	H		29427	41933	54020	78952	103912
			M		25930	36998	47514	69662	91397
			L		19752	27783	35875	52312	69009
	Heating	Heating capacity	H	Btu/Hr	68917	98371	126200	182990	242220
			M		61212	87687	112243	163115	215432
			L		47297	66656	85695	123992	164477
		Max. EH capacity		kW	4.5	6	7.5	9	9
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power Input		W	412	850	1015	1700	2030
					375	650	850	1300	1530
					320	350	500	700	1000
		Max Current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	8.75	12.5	16.03	23.25	30.77
			M		7.78	11.14	14.26	20.72	27.37
			L		6.01	8.47	10.89	15.75	20.89
		Cooling Pressure Drop	H	ft.wg	13.98	16.83	10.09	10.01	19.42
			M		11.3	13.68	8.17	8.14	15.73
			L		7.1	8.35	5.03	4.97	9.68
		Heating Water Flow Rate	H	GPM	8.75	12.5	16.03	23.25	30.77
			M		7.78	11.14	14.26	20.72	27.37
			L		6.01	8.47	10.89	15.75	20.89
		Heating Pressure Drop	H	ft.wg	12.58	15.15	9.08	9.01	17.48
			M		10.17	12.32	7.35	7.32	14.16
			L		6.39	7.52	4.52	4.47	8.71
		Water content		US gal	1.35	1.81	2.26	2.71	3.38
Construction and Packing Data		Water Connections	In	inch	1 1/4				
			Out						
		Condensate Drainage Connection		inch	1”				
		Dimensions	L	inch	33-7/16	41-5/16	49-3/16	61	74
			W		26-3/8				
			H		58-11/16				

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data

● iVAHU



iVAHU(5R+2)-P-AECM

Product range: iVAHU(5R+2)-B-P-AECM 4-pipe Unit with 5-row Cooling and 2-row Heating Coils and EC motor(s)

VAHU(5R+2)-[Size]-P~-AECM					200	300	400	600	800
Unit configuration		Configuration			4 pipes				
		Number of Fan Blowers			1			2	
		Power supply (V/Ph/Hz)			220~240/1/ 60Hz				
Performance Data	**Air**	Air flow	H	CFM	1142	1740	2296	3481	4592
			M		1014	1511	1981	3021	3962
			L		737	1081	1412	2162	2824
		ESP	H	in.wg	0.5				
			M						
			L						
	Cooling	Total Cooling Capacity	H	Btu/Hr	31939	47960	61963	89216	118928
			M		29234	43238	55298	80432	106135
			L		22797	33301	42263	61946	81117
		Sensible Cooling Capacity	H		22372	33630	43644	63320	83953
			M		20284	29996	38502	56478	74061
			L		15660	22861	29125	43043	56024
	Heating	Heating capacity	H	Btu/Hr	48333	81500	94084	134940	176467
			M		44239	73476	83963	121654	157485
			L		34498	56589	64172	93695	120363
	Sound	Sound Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
		Sound Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
		Sound Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
		Sound Power Level(Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
	Electrical	Power Input		W	412	850	1015	1700	2030
					375	650	850	1300	1530
					320	350	500	700	1000
		Max Current		A	1.87	3.86	4.61	7.73	9.23
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.26	6.39	8.26	11.89	15.85
			M		3.9	5.76	7.37	10.72	14.14
			L		3.04	4.44	5.63	8.25	10.81
		Cooling Pressure Drop	H	ft.wg	3.82	5.03	3.05	2.99	5.88
			M		3.25	4.18	2.49	2.48	4.79
			L		2.08	2.61	1.53	1.55	2.95
		Heating Water Flow Rate	H	GPM	2.41	4.06	4.69	6.72	8.79
			M		2.2	3.66	4.18	6.06	7.84
			L		1.72	2.82	3.2	4.67	6
		Heating Pressure Drop	H	ft.wg	0.77	1.99	3.68	3.6	7.06
			M		0.66	1.65	3	2.99	5.75
			L		0.42	1.03	1.85	1.87	3.54
		Cooling Water Content		US gal	1.35	1.81	2.26	2.71	3.38
		Heating Water Content			0.54	0.72	0.90	1.08	1.35
Construction and Packing Data		Cooling Water Connections	In	inch	1 1/4				
			Out						
		Heating Water Connections	In		1"				
			Out						
		Condensate Drainage Connection		inch	1"				
		Dimensions	L	inch	33-7/16	41-5/16	49-3/16	61	74
			W		26-3/8				
			H		58-11/16				

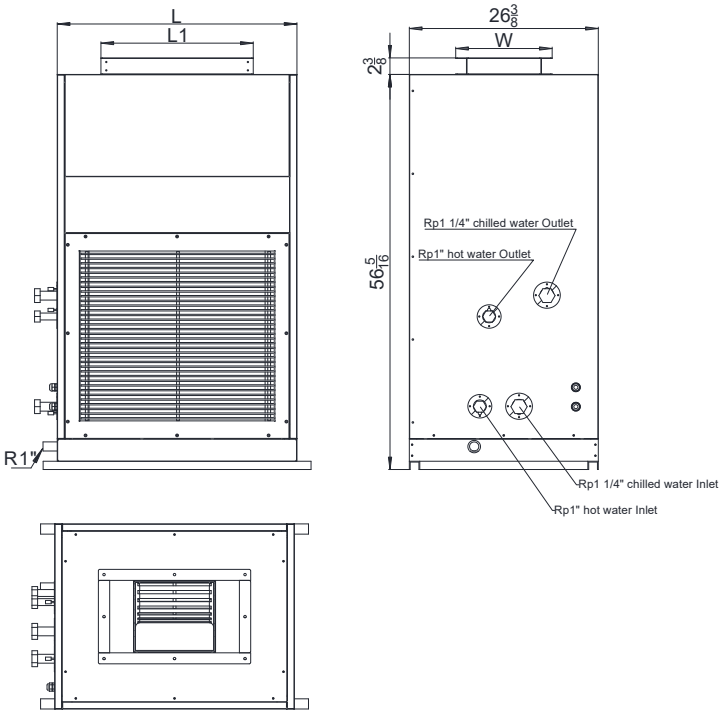
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

Technical Data

Dimensional drawings



Model	A	B	C	Qty. Of Fan
iVAHU-200	33-7/16	21-1/4	13-7/16	1
iVAHU-300	41-5/16	26-3/4	13-7/16	1
iVAHU-400	49-3/16	30-11/16	14-5/8	1
iVAHU-600	61	47-1/4	13-7/16	2
iVAHU-800	74	53-1/8	16-9/16	2

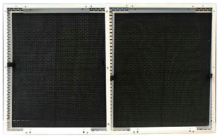
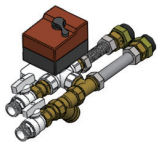
All dimensions are approximate within 1/16 of an inch of those indicated.

Technical Data



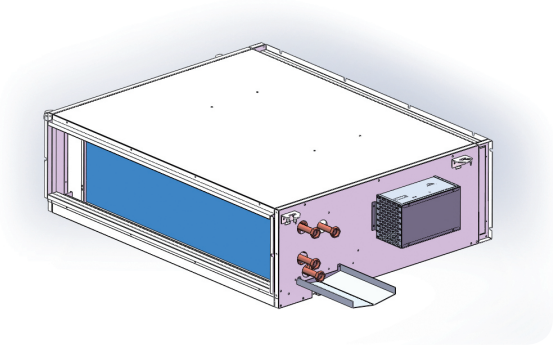
iVAHU

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.G4 filter		AA14-M8-VAHU-EC-001	Merv 8 or G4 filter for iVAHU-200
		AA14-M8-VAHU-EC-002	Merv 8 or G4 filter for iVAHU-300
		AA14-M8-VAHU-EC-003	Merv 8 or G4 filter for iVAHU-400
		AA14-M8-VAHU-EC-004	Merv 8 or G4 filter for iVAHU-600
		AA14-M8-VAHU-EC-005	Merv 8 or G4 filter for iVAHU-800
2.F8 filter		BCP-M14-VAHU-EC-001	Merv 14 or F8 filter for iVAHU-200
		BCP-M14-VAHU-EC-002	Merv 14 or F8 filter for iVAHU-300
		BCP-M14-VAHU-EC-003	Merv 14 or F8 filter for iVAHU-400
		BCP-M14-VAHU-EC-004	Merv 14 or F8 filter for iVAHU-600
		BCP-M14-VAHU-EC-005	Merv 14 or F8 filter for iVAHU-800
3.Vave kit		BCP25-RCS-VALVE-iVAHU-003	24VAC 1-1/4” Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-004	24VAC 1-1/4” Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-005	24VAC 1-1/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-006	24VAC 1-1/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-009	24VAC 1” Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-010	24VAC 1” Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-011	24VAC 1" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iVAHU-012	24VAC 1" Motorized 3-way ball valve kit
4.E-heater modular		BCP25-EH-CR400-iVAHU-EC-001	Electrical heater module maximum 4.5kw, 400V/3Ph for iVAHU-200
		BCP25-EH-CR400-iVAHU-EC-002	Electrical heater module maximum 6.0kw, 400V/3Ph for iVAHU-300
		BCP25-EH-CR400-iVAHU-EC-003	Electrical heater module maximum 7.5kw, 400V/3Ph for iVAHU-400
		BCP25-EH-CR400-iVAHU-EC-004	Electrical heater module maximum 9.0kw, 400V/3Ph for iVAHU-600
		BCP25-EH-CR400-iVAHU-EC-005	Electrical heater module maximum 9.0kw, 400V/3Ph for iVAHU-800

Horizontal Ceiling concealed Super high ESP type

iFCHHD-AECM



iFCHHD units are ideal air-treatment terminal unit for installations where ducted air distribution is necessary. The units are designed for installation in suspended ceilings or lining walls and are characterized by their compactness and extremely low noise obtained half inch insulation inside the case.

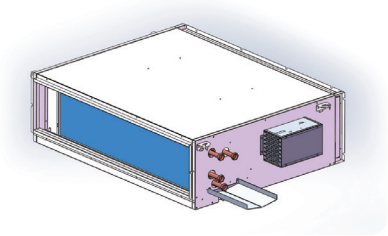
» Performance in accordance to Standard AHRI440
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment)
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
» High-efficiency Variable speed ECM motor available for higher energy efficiency
» Completed controller with VAV &VWV control logic;
» Merv 8 class filter as standard; Merv 14 class filter as optional;
» 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
» 6-way valve as optional;

iFCHHD(4R) - 600 - V X - S - AECM

AECM	EC motor configuration
S	S – Complete function integrated control, compatible with IR handset controller, wired wall-pad, serial networking for master-slave and MODBUS BMS functionality W – EC motor driver
X	220V/1P/60Hz EC motor
V	V – 2 pipe system P – 4 pipe system
600~3000	Unit Sizes
(4R)	Coil type: (4R) – 2-pipe 4-row (6R) – 2-pipe 6-row (4R+1)-4-pipe 4-row for cooling, 1-row for heating (4R+2)-4-pipe 4-row for cooling, 2-row for heating (6R+1)-4-pipe 6-row for cooling, 1-row for heating (6R+2)-4-pipe 6-row for cooling, 2-row for heating
iFCHHD	iFCHHD – Horizontal Ceiling concealed Super high ESP type single skin with 25mm insulation inside

Technical Data

● iFCHHD



iFCHHD(4R)-V-AECM

Product range:iFCHHD(4R) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

iFCHHD(4R)-[Size]-V~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	650	1046	1999	2922
			M		381	930	1772	2590
			L		397	397	795	1192
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	22695	36579	68424	96432
			M		14883	33664	62679	87246
			L		15480	17290	33384	47820
		Sensible Cooling Capacity	H		15317	24365	45697	64676
			M		9797	11138	41573	58138
			L		10221	22243	21644	31197
	Heating	Heating Capacitye	H	Btu/Hr	35281	56864	106369	149909
			M		23136	52332	97437	135629
			L		24064	26878	51897	74338
		Max. Electric Heater Capacity		kW	4.5	6	7.5	9
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.5	7.2	13.5	19.0
			M		2.9	6.7	12.4	17.2
			L		3.1	3.4	6.6	9.4
		Cooling Pressure Drop[e]	H	ft.wg	3.6	10.1	7.1	14.1
			M		1.7	8.7	6.0	11.8
			L		1.8	2.6	1.9	4.0
		Heating Water Flow Rate @3/2/1		GPM	Same as "Cooling Water Flow Rate"			
		Heating Pressure Drop[e]	H	ft.wg	3.2	9.1	6.4	12.7
			M		1.5	7.8	5.4	10.6
			L		1.6	2.4	1.8	3.6
		Water Content		gal	0.54	0.73	1.32	1.48
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			In	in	3/4”			1”
			Out		3/4”			1”
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

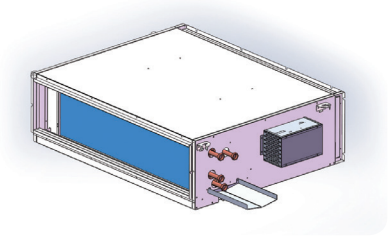
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data

● iFCHHD



iFCHHD(6R)-V-AECM

Product range:iFCHHD(6R) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

iFCHHD(6R)-[Size]-V~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	599	1005	1920	2806
			M		320	888	1691	2471
			L		317	317	634	950
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	19924	32909	62177	88445
			M		12219	30146	56668	80391
			L		12219	13084	25566	37017
		Sensible Cooling Capacity	H		13769	22706	42942	61025
			M		8192	20657	38923	55203
			L		8192	8893	17449	25270
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.7	4.4	8.3	11.8
			M		1.6	4.0	7.6	10.7
			L		1.6	1.7	3.4	4.9
		Cooling Pressure Drope	H	ft.wg	2.1	6.1	4.4	8.8
			M		0.9	5.2	3.7	7.4
			L		0.9	1.2	0.9	1.8
		Water content		gal	0.80	1.10	1.98	2.21
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			In	in	3/4”			1”
			Out		3/4”			1”
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

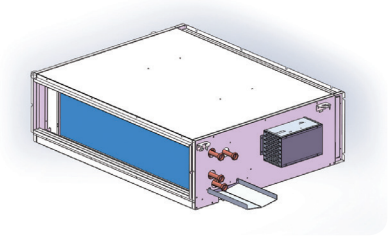
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data

● iFCHHD



iFCHHD(4R+1)-P-AECM

Product range:iFCHHD(4R+1) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

iFCHHD(4R+1)-[Size]-P~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	625	1025	1959	2864
			M		351	909	1731	2531
			L		357	357	714	1071
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	22008	36008	67322	94770
			M		14088	33063	61518	86374
			L		14287	15696	30307	43412
		Sensible Cooling Capacity	H		14801	23940	44872	63487
			M		9220	21818	40749	57544
			L		9364	10196	19813	28557
	Heating	Heating Capacity	H	Btu/Hr	17085	26827	50256	68431
			M		10936	24633	45923	62368
			L		11091	11694	22624	31347
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.4	7.1	13.3	18.7
			M		2.8	6.5	12.2	17.1
			L		2.8	3.1	6.0	8.6
		Cooling Pressure Drop[e]	H	ft.wg	3.4	9.8	6.9	13.6
			M		1.5	8.4	5.8	11.5
			L		1.6	2.2	1.6	3.3
		Heating Water Flow Rate	H	GPM	0.9	1.3	2.5	3.4
			M		0.5	1.2	2.3	3.1
			L		0.6	0.6	1.1	1.6
		Heating Pressure Drop[e]	H	ft.wg	0.2	0.6	0.4	0.8
			M		0.1	0.5	0.4	0.7
			L		0.1	0.1	0.1	0.2
		Cooling water content		gal	0.54	0.73	1.32	1.48
		Heating water content			0.13	0.18	0.33	0.37
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			Chilled coil in	inch	3/4”			1”
			Chilled coil out		3/4”			1”
			Hot coil in		3/4”			
			Hot coil out		3/4”			
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

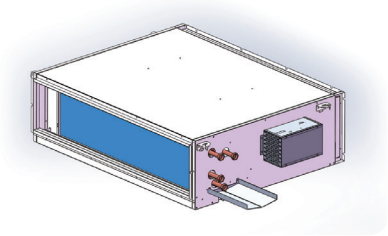
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

iFCHHD



iFCHHD(4R+2)-P-AECM

Product range:iFCHHD(4R+2) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

iFCHHD(4R+2)-[Size]-P~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	599	1005	1920	2806
			M		320	888	1691	2471
			L		317	317	634	950
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	21321	35437	66161	93107
			M		13075	32462	60299	84628
			L		13075	14089	27204	38968
		Sensible Cooling Capacity	H		14285	23516	44047	62298
			M		8500	21394	39924	56355
			L		8500	9211	17898	25797
	Heating	Heating Capacity	H	Btu/Hr	27580	44261	83563	115439
			M		16914	40544	76160	104926
			L		16914	17597	34360	48314
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.2	7.0	13.1	18.4
			M		2.6	6.4	11.9	16.7
			L		2.6	2.8	5.4	7.7
		Cooling Pressure Drop[c]	H	ft.wg	3.2	9.5	6.7	13.2
			M		1.3	8.1	5.6	11.1
			L		1.3	1.8	1.3	2.8
		Heating Water Flow Rate	H	GPM	1.4	2.2	4.2	5.8
			M		0.8	2.0	3.8	5.2
			L		0.8	0.9	1.7	2.4
		Heating Pressure Drop[c]	H	ft.wg	1.1	3.1	2.2	4.4
			M		0.4	2.7	1.9	3.7
			L		0.4	0.6	0.5	0.9
		Cooling water content		gal	0.54	0.73	1.32	1.48
		Heating water content			0.27	0.37	0.66	0.74
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			Chilled coil in	inch	3/4”			1”
			Chilled coil out		3/4”			1”
			Hot coil in		3/4”			
			Hot coil out		3/4”			
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

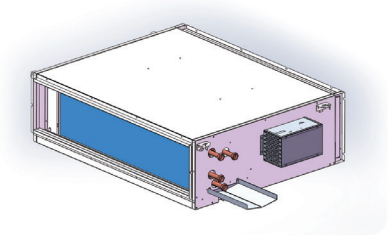
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHHD



iFCHHD(6R+1)-P-AECM

Product range:iFCHHD(6R+1) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

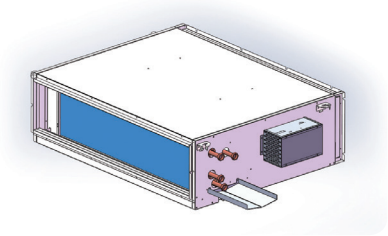
iFCHHD(6R+1)-[Size]-P~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	574	984	1880	2748
			M		289	867	1650	2412
			L		277	277	553	830
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	19265	32644	61086	86866
			M		11204	29588	55523	78732
			L		10798	11556	22579	32692
		Sensible Cooling Capacity	H		13272	22501	42138	59860
			M		7494	20247	38119	54039
			L		7215	7818	15340	22215
	Heating	Heating Capacity	H	Btu/Hr	16004	26189	48523	66030
			M		9307	23737	44104	59847
			L		8970	9271	17936	24850
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.57	4.35	8.14	11.57
			M		1.49	3.94	7.4	10.49
			L		1.44	1.54	3.01	4.36
		Cooling Pressure Drop[e]	H	ft.wg	1.95	5.99	4.22	8.53
			M		0.73	5.02	3.55	7.14
			L		0.69	0.92	0.7	1.47
		Heating Water Flow Rate	H	GPM	0.8	1.3	2.4	3.3
			M		0.5	1.2	2.2	3.0
			L		0.5	0.5	0.9	1.2
		Heating Pressure Drop[e]	H	ft.wg	0.2	0.6	0.4	0.8
			M		0.1	0.5	0.3	0.7
			L		0.1	0.1	0.1	0.1
		Cooling water content		gal	0.80	1.10	1.98	2.21
		Heating water content			0.13	0.18	0.33	0.37
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			Chilled coil in	inch	3/4”			1”
			Chilled coil out		3/4”			1”
			Hot coil in		3/4”			
			Hot coil out		3/4”			
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHHD



iFCHHD(6R+2)-P-AECM

Product range:iFCHHD(6R+2) Ceiling Concealed Super High ESP Type Hydronic Ducted Fan Coil

iFCHHD(6R+2)-[Size]-P~-ECM					600	1000	2000	3000
Unit Configuration		Configuration			2-pipe			
		Number Of Fan Blowers			Single		Twin	
		Power Supply		V/Ph/Hz	230 / 1 / 50 220 / 1 / 60			
		Operation Control			~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to EC thermostat			
Performance Data	Air	Air Flow	H	CFM	548	964	1840	2690
			M		258	846	1609	2352
			L		236	236	473	709
		Available pressure	H	in.wg	1			
			M		0.8			
			L		0.2			
	Cooling	Cooling Capacity	H	BTU/Hr	18589	32100	60541	85287
			M		10393	29001	54377	77074
			L		9497	10409	20339	29449
		Sensible Cooling Capacity	H		12775	22091	41736	58696
			M		6936	19838	37315	52874
			L		6384	7012	13758	19924
	Heating	Heating Capacity	H	Btu/Hr	25732	43172	81364	111316
			M		14387	39005	73081	100597
			L		13146	14000	27335	38436
	Sound	Sound Pressure Level (Outlet)		dB(A)	65/60/48	72/67/48	75/70/50	77/72/52
		Sound Pressure Level (Inlet + Radiated)			68/63/51	75/70/51	78/73/53	80/75/55
		Sound Power Level (Outlet)			74/69/57	81/76/57	84/79/59	86/81/61
		Sound Power Level (Inlet + Radiated)			77/72/60	84/79/60	87/82/62	89/84/64
	Electrical	Fan Motor Power	H	W	270	440	880	1320
			M		140	350	700	1050
			L		46	46	95	138
		Fan Motor Running Current @ H		A	2.34	3.82	7.65	11.5
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.5	4.3	8.1	11.4
			M		1.4	3.9	7.3	10.3
			L		1.3	1.4	2.7	3.9
		Cooling Pressure Drop[e]	H	ft.wg	1.8	5.8	4.2	8.3
			M		0.6	4.8	3.4	6.9
			L		0.6	0.8	0.6	1.2
		Heating Water Flow Rate	H	GPM	1.3	2.2	4.1	5.6
			M		0.7	1.9	3.6	5.0
			L		0.7	0.7	1.4	1.9
		Heating Pressure Drop[e]	H	ft.wg	0.9	3.0	2.1	4.1
			M		0.3	2.5	1.7	3.4
			L		0.3	0.4	0.3	0.6
		Cooling water content		gal	0.80	1.10	1.98	2.21
		Heating water content			0.27	0.37	0.66	0.74
Construction and Packing Data		Water Connections	Type		Socket(Threaded Female)			
			Chilled coil in	inch	3/4”			1”
			Chilled coil out		3/4”			1”
			Hot coil in		3/4”			
			Hot coil out		3/4”			
		Condensate Drainage Connection			3/4”			
		Dimensions	L	inch	33 7/16	45 1/4	74 13/16	82 11/16
			W		40 3/4			
			H		13 3/4			

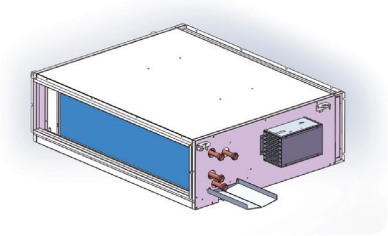
Testing conditions:

a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 60F.

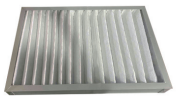
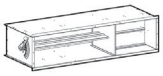
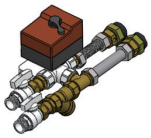
b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

● iFCHHD

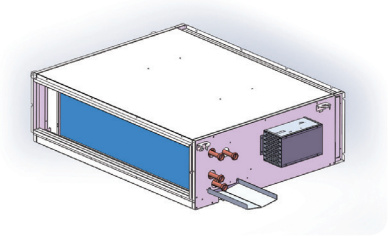


Accessories (Optional Part)

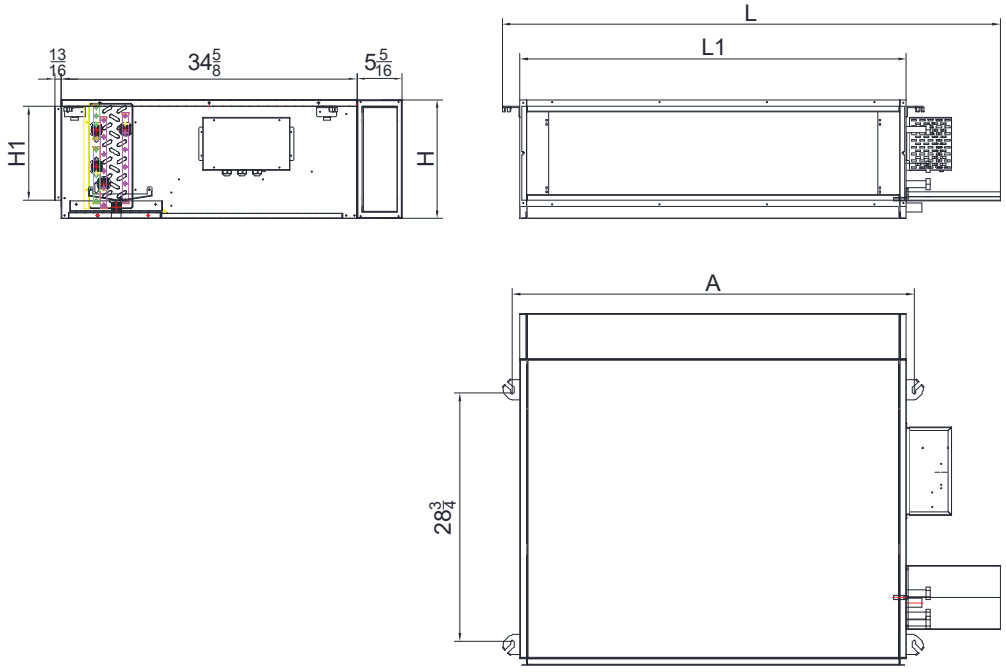
Accessories	Photo	Code	Description
1.F8 filter		BCP-M14-iFCHHD-001	Merv 14 or F8 filter for iFCHHD-600
		BCP-M14-iFCHHD-002	Merv 14 or F8 filter for iFCHHD-1000
		BCP-M14-iFCHHD-003	Merv 14 or F8 filter for iFCHHD-2000
		BCP-M14-iFCHHD-004	Merv 14 or F8 filter for iFCHHD-3000
2.E-heater modular		BCP24-EH-iFCHHD-001	Electrical heater module maximum 4.5kw, 220V/1Ph for iFCHHD-400
		BCP24-EH-iFCHHD-002	Electrical heater module maximum 6.0kw, 220V/1Ph for iFCHHD-1000
		BCP24-EH-iFCHHD-003	Electrical heater module maximum 7.5kw, 380V/3Ph for iFCHHD-2000
		BCP24-EH-iFCHHD-004	Electrical heater module maximum 9.0kw, 380V/3Ph for iFCHHD-3000
3.Intake plenum		BCP-PLENUM-iFCHHD-001	two-way intake plenum with manual damper for iFCHHD-600
		BCP-PLENUM-iFCHHD-002	two-way intake plenum with manual damper for iFCHHD-1000
		BCP-PLENUM-iFCHHD-003	two-way intake plenum with manual damper for iFCHHD-2000
		BCP-PLENUM-iFCHHD-004	two-way intake plenum with manual damper for iFCHHD-3000
		BCP-PLENUM-iFCHHD-005	two-way intake plenum with modulating damper for iFCHHD-600
		BCP-PLENUM-iFCHHD-006	two-way intake plenum with modulating damper for iFCHHD-1000
		BCP-PLENUM-iFCHHD-007	two-way intake plenum with modulating damper for iFCHHD-2000
		BCP-PLENUM-iFCHHD-008	two-way intake plenum with modulating damper for iFCHHD-3000
4.Drain Pan		BCP-SSDP-iFCHHD-001	Stainless steel drain pan for iFCHHD-600
		BCP-SSDP-iFCHHD-002	Stainless steel drain pan for iFCHHD-1000
		BCP-SSDP-iFCHHD-003	Stainless steel drain pan for iFCHHD-2000
		BCP-SSDP-iFCHHD-004	Stainless steel drain pan for iFCHHD-3000
5.Valve kit		BCP25-RCS-VALVE-iFCHHD-001B	24VAC 3/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-002B	24VAC 3/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-005B	24VAC 1" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-006B	24VAC 1" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-007	24VAC 1" Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHHD-008	24VAC 1" Modulating 3-way ball valve kit

Technical Data

● iFCHHD



Dimensional drawings



Model	600	1000	2000	3000
L	46 9/16	58 3/8	87 15/16	87 15/16
L1	33 7/16	45 1/4	74 13/16	74 13/16
A	35 1/4	47 1/16	76 5/8	76 5/8
H	13 3/4	13 3/4	13 3/4	15 3/4
H1	10 13/16	10 13/16	10 13/16	12 13/16

All dimensions are approximate within 1/16 of an inch of those indicated.

High rise with HRV

iFCHR-AECM



iFCHR is designed specifically for high-rise installation: apartments, hotels, condominiums and office buildings. iFCHR units combine easy installation without sacrificing room comfort or design appearance. These compact units take up a minimum of space and can be used in a variety of ways such as built into a room divider or a wall to serve two or more rooms. The iFCHR can also be concealed in the corner of a room or even inside a closet.

» Performance in accordance to Standard AHRI 440;
» Sound Performance tested as per AHRI Standard 350-2000 (non–ducted equipment);
» ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard;
» High-efficiency Variable speed ECM motor available for higher energy efficiency;
» HRV available for higher energy efficiency;
» Completed controller with VAV & VWV control logic;
» Merv 8 class filter & Stainless steel drain pan as standard;
» Special grade GI steel with Al + Zn coating known as 'Galvalume';
» 2-way / 3-way modulating valve kit with Isolation ball valves & strainer as optional;
» 6-way valve as optional;

iFCHR(3R) - 500 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
500~1400	Unit Sizes
MFCHR	High rise with HRV
3R	2 pipes 3 rows
3R+1	4 pipes with 3 rows cooling and 1 rows heating

Technical Data



iFCHR

iFCHR(3R)-V-AECM

Product range: iFCHR(3R)-V-AECM 3-row coil 2-pipe with EC motor(s)

iFCHR(4R)-[Size]-V~-AECM						500	800	1400
Unit configuration		Configuration				2 pipes		
		Number of Fan Blowers				1		
		Power supply (V/Ph/Hz)				115/1/60 or 220/1/60		
Performance Data	Air	Air flow	H		CFM	541	921	1612
			M			450	783	1370
			L			324	552	967
		ESP	H		in.wg	0.30		
			M					
			L					
	Cooling	Total Cooling Capacity	H		Btu/Hr	18013	28874	45725
			M			15962	25474	40458
			L			12113	19187	30573
		Sensible Cooling Capacit	H			11920	19108	30942
			M			10454	16799	27103
			L			7842	12407	20230
	Heating	Heating capacity	H		Btu/Hr	28001	44885	71082
			M			24813	39600	62894
			L			18830	29827	47527
		Max. EH capacity			kW	3	4.5	6
	Sound	Sound Pressure Level (Outlet)			dB(A)	49/42/36	57/51/45	62/55/47
		Sound Pressure Level (Inlet + Radiated)				46/39/33	54/48/42	59/52/44
		Sound Power Level (Outlet)				58/51/45	66/60/54	71/64/56
		Sound Power Level(Inlet + Radiated)				55/48/42	63/57/51	68/61/53
	Electrical	Fan Motor Power	H		W	130	260	400
			M			70	170	260
			L			40	90	120
	Hydraulic	Water Flow Rate	H		GPM	3.56	5.7	9.03
			M			3.15	5.03	7.99
			L			2.39	3.79	6.04
		Pressure Drop	H		ft.wg	13.93	11.59	13.1
			M			11.21	9.25	10.51
			L			6.82	5.55	6.35
		Water content			US.gal	0.54	0.69	0.838
		Water Connections	In		inch	3/4”		1”
			Out			3/4”		1”
Construction and Packing Data		Condensate Drainage Connection			inch	3/4"		
		Dimensions	L		inch	20”		23 1/16”
			W			20”		23 1/16”
			H			86 5/6”		

Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 140F
- Water flow same to cooling mode

Technical Data



iFCHR

iFCHR(3R+1)-P-AECM

Product range: iFCHR(3R+1)-P-AECM 4-pipe Unit with 3-row Cooling and 1-row Heating Coils and EC motor

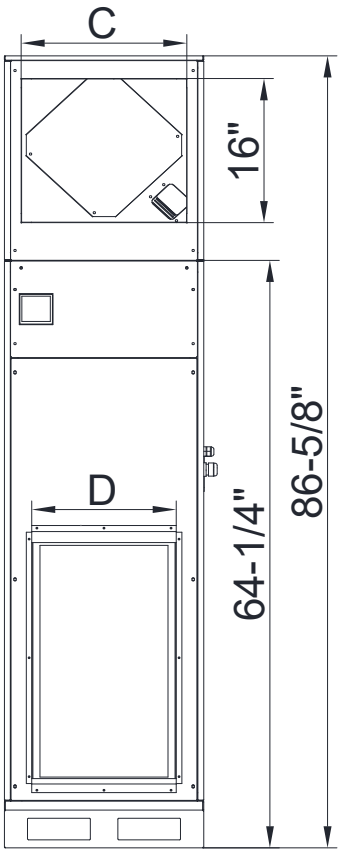
iFCHR(4R+1)-[Size]-P~-AECM						500	800	1400
Unit configuration		Configuration				4 pipes		
		Number of Fan Blowers				1		
		Power supply (V/Ph/Hz)				115/1/60 or 220/1/60		
Performance Data	Air	Air flow	H	CFM		525	910	1587
			M			455	780	1363
			L			325	553	969
		ESP	H	in.wg		0.28		
			M					
			L					
	Cooling	Total Cooling Capacity	H	Btu/Hr		17588	28604	45363
			M			15812	25177	40458
			L			12113	19187	30993
		Sensible Cooling Capacity	H			11606	18916	30668
			M			10349	16597	27103
			L			7842	12407	20537
	Heating	Heating capacity	H	Btu/Hr		15778	25304	40182
			M			14186	22272	35838
			L			10867	16973	27453
	Sound	Sound Pressure Level (Outlet)		dB(A)		49/42/36	57/51/45	62/55/47
		Sound Pressure Level (Inlet + Radiated)				46/39/33	54/48/42	59/52/44
		Sound Power Level (Outlet)				58/51/45	66/60/54	71/64/56
		Sound Power Level(Inlet + Radiated)				55/48/42	63/57/51	68/61/53
	Electrical	Fan Motor Power	H	W		130	260	400
			M			70	170	260
			L			40	90	120
	Hydraulic	Water Flow Rate	H	GPM		3.47	5.65	8.96
			M			3.12	4.97	7.99
			L			2.39	3.79	6.12
		Pressure Drop	H	ft.wg		13.34	11.39	12.92
			M			11.02	9.05	10.51
			L			6.82	5.55	6.51
		Heating Water Flow Rate	H	GPM		0.79	1.26	2
			M			0.71	1.11	1.79
			L			0.54	0.85	1.37
		Heating Pressure Drop	H	ft.wg		1.67	4.45	3.6
			M			1.38	3.54	2.93
			L			0.85	2.17	1.81
		Cooling Coil Water content		US.gal		0.54	0.69	0.838
		Heating Coil Water content		US.gal		0.18	0.23	0.279
Construction and Packing Data		Cooling Water Connections	In	inch		3/4”		1”
			Out			3/4”		1”
		Heating Water Connections	In	In		3/4"		
			Out	Out				
		Condensate Drainage Connection		inch		3/4"		
		Dimensions	L	inch		20”		23 1/16”
			W			20”		23 1/16”
			H			86 5/6”		

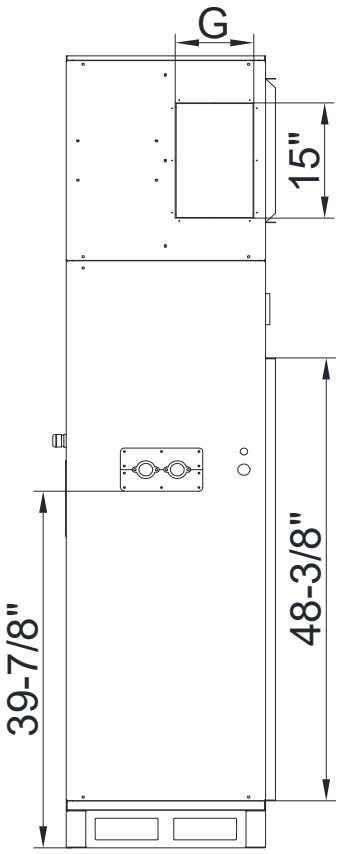
Testing conditions:
a. Cooling mode:
- Return air temperature: 80F DB/ 67F WB.
- Inlet/ outlet water temperature: 45F/ 55F.

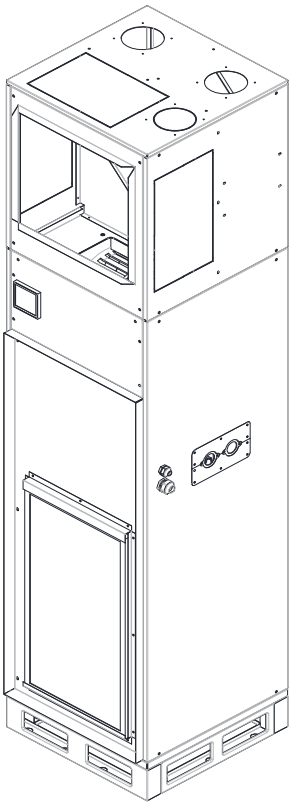
b. Heating mode:
- Return air temperature: 70F.
- Inlet water temperature: 180F
- Outlet water temperature: 140F

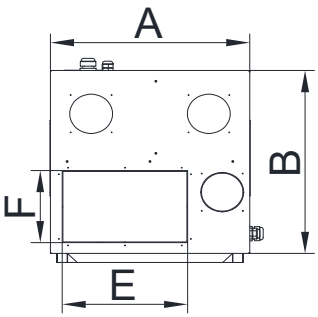
Technical Data

Dimensional drawings









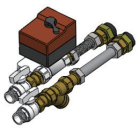
Model	Unit	A	B	C	D	E	F	G
iFCHR-500/800	inch	20	20	17	15	12	10.5	10.5
iFCHR-1400		23	23	20	18	15	11.5	11.5

Technical Data



iFCHR

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Vave kit		BCP25-RCS-VALVE-iFCHR-001	24VAC 3/4" Motorized 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHR-002	24VAC 3/4" Motorized 3-way ball valve kit
		BCP25-RCS-VALVE-iFCHR-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-iFCHR-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit
2.ERV modular		BCP25-RCS-ERV-iFCHR-001	ERV modular for iFCHR-500
		BCP25-RCS-ERV-iFCHR-002	ERV modular for iFCHR-800
		BCP25-RCS-ERV-iFCHR-003	ERV modular for iFCHR-1400
3.Electrical heater		BCP25-EH-CR-220-iFCHR-001	3kW (10,200 BTU/H) electric heat module (220V/1ph) for iFCHR-500
		BCP25-EH-CR-220-iFCHR-002	4.5kW (15,400 BTU/H) electric heat module (220V/1ph) for iFCHR-800
		BCP25-EH-CR-220-iFCHR-003	6kW (20,500 BTU/H) electric heat module (220V/1ph) for iFCHR-1400

Horizontal/Vertical Fan Coil Unit

iFCVMB25-AECM



Additional Standard Features:

- Vertical/horizontal drain pans
- Hot water coil assembly slides out for asier service
- Manual air vent on hot water coil
- Fully insulated cabinet
- Higher efficiency pleated filter
- Primary and secondary drain connections on cooling coil
- 115V power supply or 220V motor power supply
- Compatible with most properly sized and installed zone control systems or complete function zone controller preinstallled.

The iFCVMB25 Series includes a programmable, high efficiency motor that redefifines comfort and energy savings. The iFCVMB motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant air flow over a wide range of external static pressures. This variable speed technology offers better indoor air quality, more precise humidity control, quieter operation, consistent indoor air temperature, and lower utility bills.

Self-Regulating Constant Air flow - The iFCVMB motor is factory programmed to maintain a predetermined level of airflow over a wide range of external static pressures, ensuring optimum system performance and whole-house comfort. The benefits of constant fan operation are:

- Consistent air distribution (and temperature) throughout the home
- Better indoor air quality (further improved with the addition of high efficiency filter) - This allows the air to be filtered without excessive drafts and without sacrificing efficiency.
- Better humidity control - The iFCVMB is designed to extract much more moisture from the air than a conventional system by slowing the airflow over the cooling coil. The result is an improved summer comfort level at higher indoor temperatures.

iFCVMB25 - 800 - V X - S - AECM

AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to EC modulating thermostat
X	220V/1P/60Hz EC motor
Y	115V/1P/60Hz EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
800~2000	Unit Sizes
iFCVMB25	Horizontal/Vertical Fan Coil Unit

Technical Data



iFCVMB25

iFCVMB25(3R)-V-AECM

Product range: iFCVMB25(3R)-V-AECM 3-row coil 2-pipe with EC motor

iFCVMB25(3R)-[Size]-V~-AECM					400	600	800	1200	1600	2000
Unit configuration		Configuration			2-pipe					
		Number of Fan Blowers			1					
		Power supply (V/Ph/Hz)			115/1/ 60 or220/1/60					
Performance Data	Air	Air flow	H	CFM	410	600	803	1370	1905	2451
			M		360	510	682	1165	1619	2083
			L		250	360	482	822	1143	1470
		ESP	H	in.wg	0.48					
	Cooling	Total Cooling Capacity	H	Btu/Hr	14560	19300	24143	38772	50653	66071
			M		13000	17100	21276	34233	44784	58167
			L		9600	13000	16178	26136	34322	44586
		Sensible Cooling Capacity	H		9500	12800	16285	26450	34831	45523
			M		8530	11300	14228	23087	30453	39697
			L		6400	8530	10675	17432	23078	30028
	Heating	Heating capacity	H	Btu/Hr	22600	30000	37531	60273	78742	102711
			M		20300	26500	33075	53216	69619	90423
			L		14900	20300	25149	40629	53355	69311
		Max. EH capacity		kW	2	3	4.5	6	6	6
	Sound	Sound Pressure Level(Outlet)		dB(A)	45/42/39	51/47/43	55/51/47	63/61/52	67/63/55	74/69/62
		Sound Pressure Level(Inlet + Radiated)			48/45/41	54/50/46	58/54/50	66/64/55	70/66/58	77/72/65
		Sound Pressure(Outlet)			54/51/47	60/56/52	64/60/56	72/68/61	76/72/64	83/78/71
		Sound Power Level (Inlet + Radiated)			57/54/50	63/59/55	67/63/59	75/71/64	79/75/67	86/81/74
	Electrical	Fan Motor Power	H	W	90	168	200	410	650	760
			M		65	112	130	375	500	650
			L		55	65	70	320	350	500
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.88	3.82	4.8	7.7	10	13.1
			M		2.58	3.37	4.2	6.8	8.8	11.5
			L		1.9	2.58	3.2	5.2	6.8	8.8
		Cooling Pressure Drop	H	ft.wg	3.79	6.32	7.5	12	9.9	11
			M		3.13	5.06	6	9.6	8	8.7
			L		1.79	3.13	3.7	5.9	4.9	5.4
		Heating Water Flow Rate	H	GPM	2.88	3.82	4.8	7.7	10	13.1
			M		2.58	3.37	4.2	6.8	8.8	11.5
			L		1.9	2.58	3.2	5.2	6.8	8.8
		Heating Pressure Drop	H	ft.wg	3.42	5.69	6.8	10.8	9	9.9
			M		2.82	4.55	5.4	8.6	7.2	7.8
			L		1.61	2.82	3.3	5.3	4.4	4.9
		Water content		US.gal	0.5	0.5	0.5	0.63	0.73	0.96
Construction and Packing Data		Water Connections	In	inch	3/4”				1”	
			Out							
		Condensate Drainage Connection		inch	3/4”					
		Dimensions	L	inch	22	22	22	29	46	46
			W		15	15	15	18	18	18
			H		48	48	48	48	48	48

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F
~ Water flow same to cooling mode

Technical Data



● iFCVMB25

iFCVMB25-P-AECM

Product range: iFCVMB25(3R+2)-P-AECM 4-pipe Unit with 3-row Cooling and 2-row Heating Coils and EC motor

iFCVMB25(3R+2)-[Size]-P~-AECM					400	600	800	1200	1600	2000
Unit configuration		Configuration			4-pipe					
		Number of Fan Blowers			1					
		Power supply (V/Ph/Hz)			115/1/ 60 or220/1/60					
Performance Data	Air	Air flow	H	CFM	410	600	803	1370	1905	2451
			M		360	510	682	1165	1619	2083
			L		250	360	482	822	1143	1470
		ESP	H	in.wg	0.4					
	Cooling	Total Cooling Capacity	H	Btu/Hr	14560	19300	24143	38772	50653	66071
			M		13000	17100	21276	34233	44784	58167
			L		9600	13000	16178	26136	34322	44586
		Sensible Cooling Capacity	H		9500	12800	16285	26450	34831	45523
			M		8530	11300	14228	23087	30453	39697
			L		6400	8530	10675	17432	23078	30028
	Heating	Heating capacity	H	Btu/Hr	18600	24700	37531	60273	78742	102711
			M		17000	22100	33075	53216	69619	90423
			L		13000	17000	25149	40629	53355	69311
		Max. EH capacity		kW	2	3	4.5	6	6	6
	Sound	Sound Pressure Level(Outlet)		dB(A)	45/42/39	51/47/43	55/51/47	63/61/52	67/63/55	74/69/62
		Sound Pressure Level(Inlet + Radiated)			48/45/41	54/50/46	58/54/50	66/64/55	70/66/58	77/72/65
		Sound Pressure(Outlet)			54/51/47	60/56/52	64/60/56	72/68/61	76/72/64	83/78/71
		Sound Power Level (Inlet + Radiated)			57/54/50	63/59/55	67/63/59	75/71/64	79/75/67	86/81/74
	Electrical	Fan Motor Power	H	W	90	168	200	410	650	760
			M		65	112	130	375	500	650
			L		55	65	70	320	350	500
	Hydraulic	Cooling Water Flow Rate	H	GPM	2.88	3.82	4.8	7.7	10	13.1
			M		2.58	3.37	4.2	6.8	8.8	11.5
			L		1.9	2.58	3.2	5.2	6.8	8.8
		Cooling Pressure Drop	H	ft.wg	3.79	6.32	7.5	12	9.9	11
			M		3.13	5.06	6	9.6	8	8.7
			L		1.79	3.13	3.7	5.9	4.9	5.4
		Heating Water Flow Rate	H	GPM	0.93	1.23	4.8	7.7	10	13.1
			M		0.85	1.1	4.2	6.8	8.8	11.5
			L		0.65	0.85	3.2	5.2	6.8	8.8
		Heating Pressure Drop	H	ft.wg	0.58	0.97	6.8	10.8	9	9.9
			M		0.5	0.8	5.4	8.6	7.2	7.8
			L		0.3	0.5	3.3	5.3	4.4	4.9
		Chilled water content		US.gal	0.5	0.5	0.5	0.63	0.73	0.96
		Hot water content		US.gal	0.33	0.33	0.33	0.42	0.48	0.64
Construction and Packing Data		Chilled water Connections	In	inch	3/4"				1"	
			Out							
		Hot Water Connections	In	inch	3/4"					
			Out							
		Condensate Drainage Connection		inch	3/4"					
		Dimensions	L	inch	22	22	22	29	46	46
			W		15	15	15	18	18	18
			H		48	48	48	48	48	48

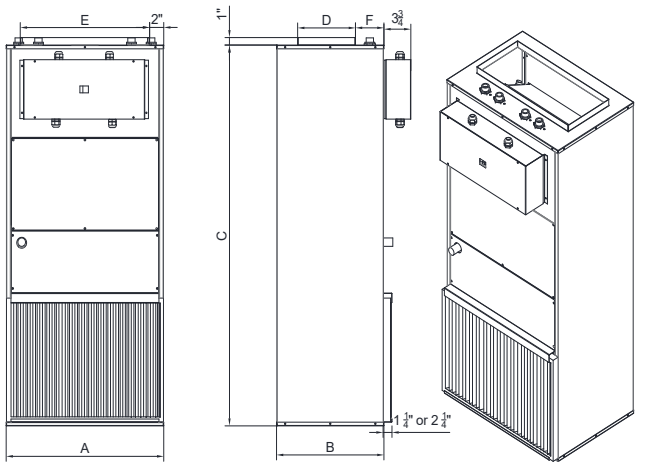
Testing conditions:

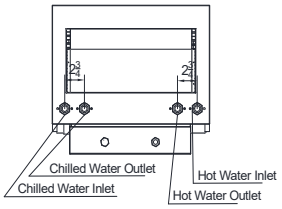
a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:
- Return air temperature: 70F.
- Inlet/Outlet water temperature: 180F/140F

Technical Data

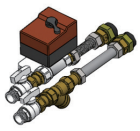
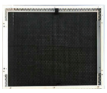
Dimensional drawings





Model	400	600	800	1200	1600	2000
A	22"	22"	22"	29"	46"	46"
B	15"	15"	15"	18"	18"	18"
C	48"	48"	48"	48"	48"	48"
D	8"	8"	8"	12"	12"	12"
E	18"	18"	18"	25"	40"	40"
F	4"	4"	4"	4"	5"	5"

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Valve kit		BCP25-RCS-VALVE-iFCVMB-01B	24VAC 3/4" Motorized 2-way ball valve kit for iFCVMB-400-600-800-1200
		BCP25-RCS-VALVE-iFCVMB-02B	24VAC 3/4" Motorized 3-way ball valve kit for iFCVMB-400-600-800-1200
		BCP25-RCS-VALVE-iFCVMB-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit for iFCVMB-400-600-800-1200
		BCP25-RCS-VALVE-iFCVMB-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit for iFCVMB-400-600-800-1200
		BCP25-RCS-VALVE-iFCVMB-05B	24VAC 1" Motorized 2-way ball valve kit for iFCVMB-1600~2000
		BCP25-RCS-VALVE-iFCVMB-06B	24VAC 1" Motorized 3-way ball valve kit for iFCVMB-1600~2000
		BCP25-RCS-VALVE-iFCVMB-007	24VAC 1" Modulating 2-way ball valve kit for iFCVMB-1600~2000
		BCP25-RCS-VALVE-iFCVMB-008	24VAC 1" Modulating 3-way ball valve kit for iFCVMB-1600~2000
2.Merv8 filter		AA14-M8-iFCVMB-EC-001	Merv 8 or G4 filter for iFCVMB-400-600-800
		AA14-M8-iFCVMB-EC-002	Merv 8 or G4 filter for iFCVMB-1200
		AA14-M8-iFCVMB-EC-003	Merv 8 or G4 filter for iFCVMB-1600-2000
3.Merv14 Filter		BCP-M14-iFCVMB-EC-001	Merv 14 or F8 filter for FCVMB-400-600-800
		BCP-M14-iFCVMB-EC-002	Merv 14 or F8 filter for iFCVMB-1200
		BCP-M14-iFCVMB-EC-003	Merv 14 or F8 filter for iFCVMB-1600-2000
4.Eeletric heater modular		BCP25-EH-SSR-220V-iFCVMB25-001	Electrical heater module with SSR and maximum 2.0kw for iFCVMB25-400
		BCP25-EH-SSR-220V-iFCVMB25-002	Electrical heater module with SSR and maximum 3.0kw for iFCVMB25-600
		BCP25-EH-SSR-220V-iFCVMB25-003	Electrical heater module with SSR and maximum 4.5kw for iFCVMB25-800
		BCP25-EH-SSR-220V-iFCVMB25-004	Electrical heater module with SSR and maximum 6.0kw for iFCVMB25-1200
		BCP25-EH-SSR-220V-iFCVMB25-005	Electrical heater module with SSR and maximum 6.0kw for iFCVMB25-1600-2000
		BCP25-EH-CR-220V-iFCVMB25-001	Electrical heater module with Contact Relay and maximum 2.0kw for iFCVMB25-400
		BCP25-EH-CR-220V-iFCVMB25-002	Electrical heater module with Contact Relay and maximum 3.0kw for iFCVMB25-600
		BCP25-EH-CR-220V-iFCVMB25-003	Electrical heater module with Contact Relay and maximum 4.5kw for iFCVMB25-800
		BCP25-EH-CR-220V-iFCVMB25-004	Electrical heater module with Contact Relay and maximum 6.0kw for iFCVMB25-1200
		BCP25-EH-CR-220V-iFCVMB25-005	Electrical heater module with Contact Relay and maximum 6.0kw for iFCVMB25-1600-2000

iFCU monitoring and management system

INSPIRONAIR controls offer comfort control in an easily managed and operated system.



SRCS Solution



Wed Access



RCS Manager



Phone

Modbus Protocol

Bulding control network

VWV Outdoor unit

VWV network

Wired wall pad

Indoor unit

VAV network

Fire alarm

Securlty

Power supply fadllty

Pump

Lighting

Elevator

SRCS BACnet@ Solution



BMS system
(supplied by installer)

Bacnet / Ethernet

Bulding control network

VWV Outdoor unit

VWV network

i Controller S7

Wired wall pad

Indoor unit

VAV network

i Controller S7

Fire alarm

Securlty

Power supply fadllty

Pump

Lighting

Elevator

SRCS Management & Monitoring System

SRCS MMS manages and monitors all of SRCS HVAC equipment. Available for all applications, this system is able to manage all cooling &heating production components and all associated hydraulic and air handling devices:
Heat pumps, Energy metering, valves, pumps, light, security and blinding system etc.

Main features:

Command & control your HVAC plant

- Production and operation strategy management;
- Controlling and monitoring heat pump;
- Controlling and monitoring of all hydraulic components of installation

Manage the energy

- Daily and seasonal programming;
- Optimization SRCS cascading management;
- Set-points configuration and optimization;
- Energy management of the system;

Secure the operation

- Faults/Alarm detection and signaling,
- Equipment management alternation/rescue/priority network;
- Preventive maintenance alerts scheduling;
- View of the installation and equipment states

Monitor the installation

- On site local monitoring and remote monitoring through the dedicated website;
- View in real time of the equipment and installation states, access to installation schemes, operation curves.
- Events notification by mail (faults alarms)
- Long-term saving of recorded values, events and curves;

Capacity:

- Management of SRCS devices;
- Energy metering, flow meters, temperature sensors and pressures;
- Energy recovery
- Coupling with other energy sources;
- Communication with all BMS;
- Other communication by open protocols (BACnet IP, MS/TP, Modbus RTU)

Solution Advantages:

Expert in SRCS management

- System and control expertise
- Commissioning and installation support;
- One supplier to facilitate the installation;
- Ergonomic and easy friendly user interface according to user needs;

Flexible and scalable solution

- Tailor-made solution for existing and new system;
- Suitable to process and comfort application;
- Compliance with all BMS;
- Fully configurable according to building evolution;

Costs management and profitability

- Real-time operating and maintenance costs management;
- Quick Return On Investment;
- Service Experts support

1. SRCS manager

1.1 SRCS Manager with 10” touch screen installed in the house



1.2 SRCS Manager installed inside units

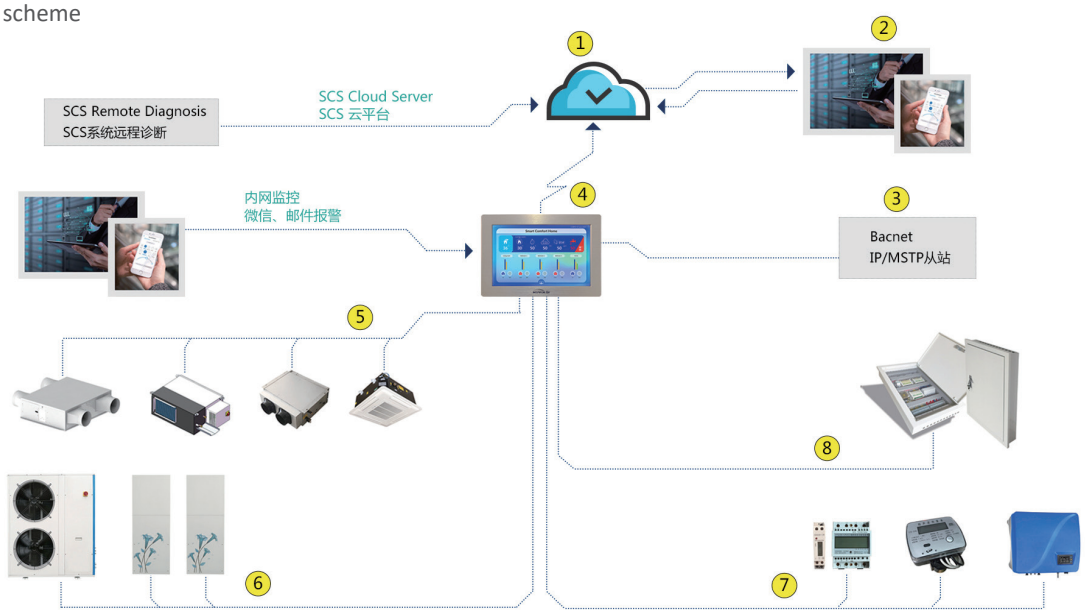


- SRCS Manager is a data transfer station. It uploads the entire system components working parameters to Cloud Server and downloads the instructions from Cloud Server to the entire system components through APPs. This is a complete IoT solution.

- SRCS Manager is a BACnet IP and BACnet MSTP router. BACnet (Building Automation and Controls network) was developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). BACnet is an ISO global standard, American national standard, a European pre-standard, and is used in more than 30 countries.

BACnet is a data communication protocol, or set of communication rules, that ASHRAE created in order to standardize communication between building automation system components. BACnet allows systems from various vendors, such as HVAC, lighting, security and fire systems, to communicate with each other by providing standardized methods for presenting, requesting, interpreting and transporting information.

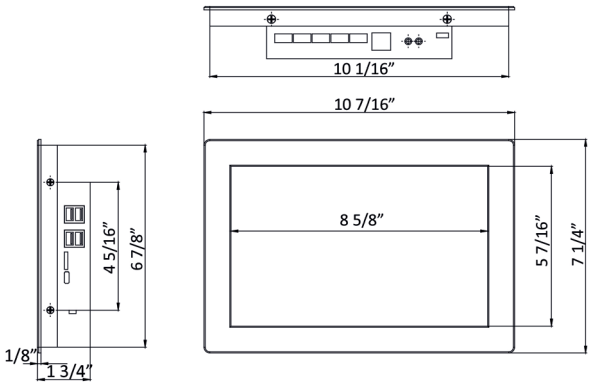
● SRCS scheme



Legend:

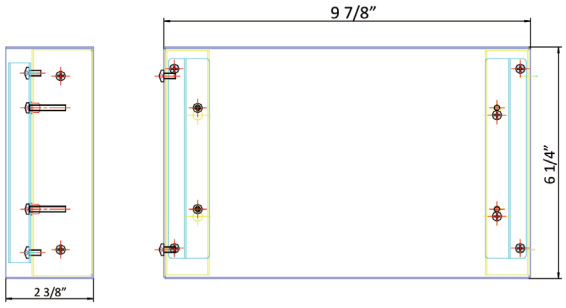
1.Inspiron Air Cloud Server	2.Remote Diagnosis（PC、PAD、Phone）	3.Bacnet IP/MSTP router
4.RCS manager	5.COM1（RS485-1）Indoor Comfort System	6.COM2（RS485-2）Heat Source Plants
7.COM3（RS485-3）Energy Management	8.COM4（RS485-4）Smart Home	

● SRCS manager Dimensions

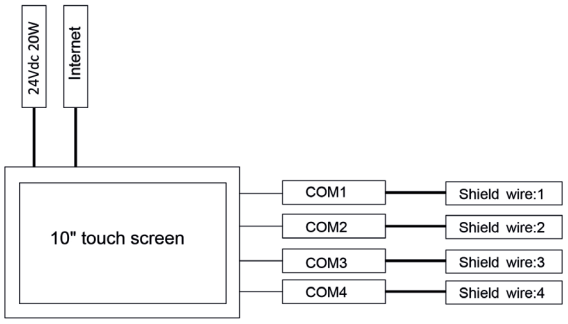


SRCS manager accessories

SRCS manager pre-installation box is pre-installed into the wall and used to support 10” touch screen surface mount.

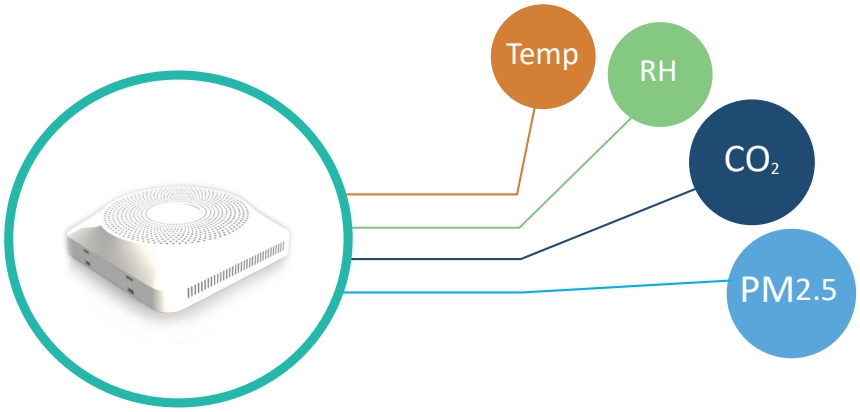


● SRCS manager Wiring Diagram



Power supply: AC/DC 12~24V (rated power 10W);
Network port: default IP address 192.168.1.88;
Full isolation RS485 interface: (COM1, COM2, COM3, COM4)
A positive (+) B negative (-) GND (ground)
Full isolation RS232 interface: Rx (2) TX (3) GND (5)
DB9-M: Gateway RX (2) ~~ device TX (3)
Gateway TX (3) ~~ device RX (2)
Gateway GND (5) ~~ equipment GND (5)
DB9-F: Gateway RX (2) ~~ device RX (2)
Gateway TX (3) ~~ device TX (3)
Gateway GND (5) ~~ equipment GND (5)

2. SRCS i Controller S5



Main functions

- Temperature control switch
- RH control switch
- CO2 sensor: 0~10Vdc output
- PM2.5 sensor: 0~10Vdc output
- Modbus protocol
- Power supply: 24Vac or Vdc
- Working environment: 0~50°C, 5~95%RH (no condensate)
- Self-power consumption: <2W
- Protection class: IP30

AQI technical parameters

▶ CO2 sensor

Detection principle	non-dispersive infrared spectroscopy (NDIR)
Detection range	400~2000PPM
Detection accuracy	±(50ppm+5% reading)
Stabilization time	120S

▶ PM2.5 sensor

Detection principle	Laser light scattering
Detection range	0~500ug/m3
resolution ratio of Particle mass concentration	1ug/m3
Minimum resolution particle size	0.3um
consistency (PM2.5 mass concentration) Test condition: (25±5)°C , RH: 50%	±10% @(0~500)ug/m3
Response time	<=3s

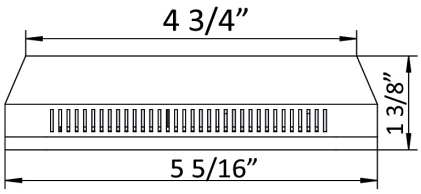
Temperature sensor

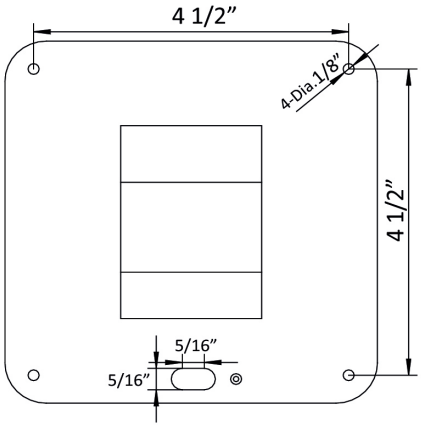
Parameter	Condition	Valve	unit
Accuracy tolerance	Typ. 10~55	±0.3	°C
Repeatability		0.1	°C
Specified range		-40~125	°C
Response time		>2	S

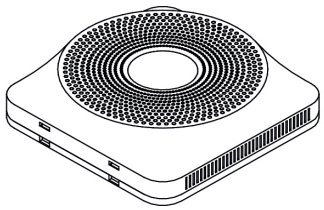
Humidity sensor

Parameter	Condition	Valve	unit
Accuracy tolerance	Typ.	±2	%RH
Repeatability		0.2	%RH
Specified range	Extended	0~100	%RH
Response time		>8	S
Hysteresis	At 25°C	±0.8	%RH

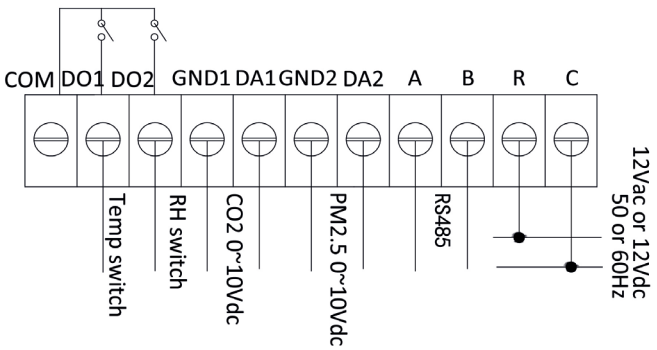
Dimensions and installation







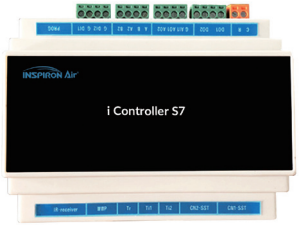
Wiring diagram



4. SRCS i Controller S7

M Controller S7 HVAC programmable controllers works with:

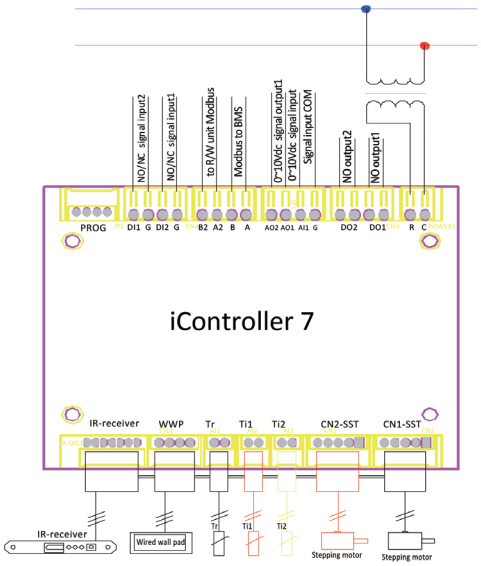
Fan control: analog (ECM) based on ESP or Room Temperature;
Water flow control: On/off, Delta T, Delta P and Constant water flow;
Internal/external occupancy input;
TTL1 ports for end of user;
BUS ports for AQI transducer or EC motor driver;
BUS ports for BMS communication;



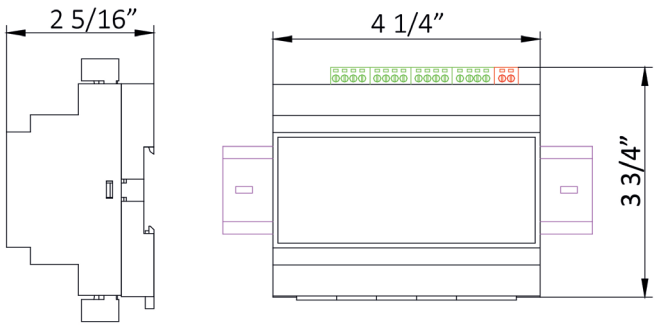
Technical data

I/O	Code	Description
Analogue Input	AL0~AL2	Type : NTC (10k at 25 °C) Temperature range : 0...70 °C Cable length： Max. 10 m
	0~10VDC	0~10VDC signal input
User interface	X-DIS 1	Digital communication port to LED / IR receiver board.
	TTL1	Digital communication port to Wired wall pad board.
Digital input	DI1~DI2	Operating action： Selectable (N.O./N.C.) Contact sensing： SELV DC 0...5 V/max. 5 mA
Power supply	C	Rated voltage: SELV AC/DC 24 V±20 % or AC 24 V class 2 Frequency: 50/60Hz Power consumption Max: 6.5VA
	R	
Digital output	DO1~DO2	Free of voltage outputs Rating: AC 230 V 5 A
Analogue output	AO1~AO2	Resolution SELV DC 0...10 V 39 mV Current Max. ±1 mA
Stepping Motor	CN1	Permanent magnet stepping motor +12Vdc (5 wires)
	CN2	
BUS port	A1/B1	Communication with EC fan driver
	A/B	Modbus network serial connection
Standards and directives		CB Approved ETL Approved

Wiring



Dimensions



5. SRCS i Controller S8

M Controller S8 HVAC programmable controllers works with:



Fan control: 1, 2 or 3-speed (auto/on), or analog (ECM) based on ESP or Room Temperature;

Water flow control: On/off, Delta T, Delta P and Constant water flow;

Reheat or E-heater control;

Recycle air volume control;

Filter control;

Internal/external occupancy input;

TTL1 ports for end of user;

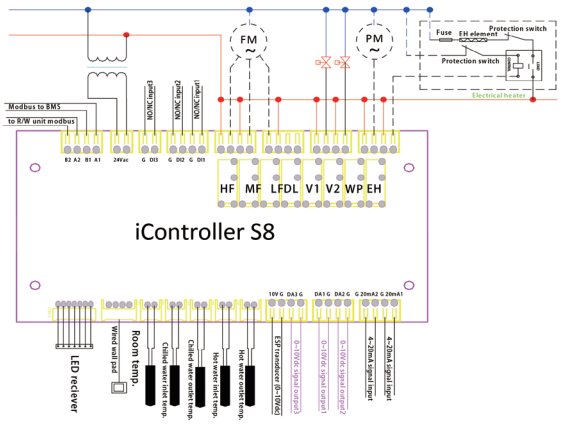
BUS ports for AQI transducer or EC motor driver;

BUS ports for BMS communication;

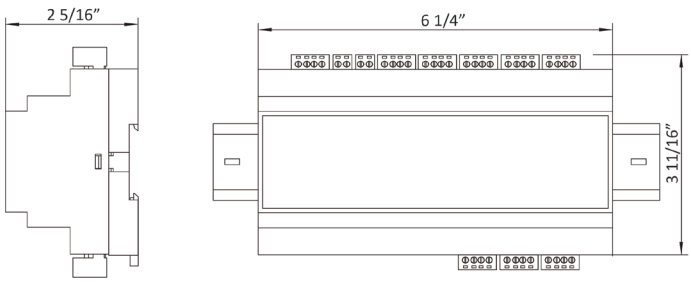
Technical data

I/O	Code	Description
Analogue Input	AL0~AI4	Type : NTC (10k at 25 °C) Temperature range : 0...70 °C Cable length： Max. 10 m
	0~10VDC	0~10VDC signal input
	4~20mA	4~20mA signal input
	4~20mA	4~20mA signal input
User interface	X-DIS 1	Digital communication port to LED / IR receiver board.
	TTL1	Digital communication port to Wired wall pad board.
Digital input	PRO1~PRO3	Operating action： Selectable (N.O./N.C.) Contact sensing： SELV DC 0...5 V/max. 5 mA
Power supply	C	Rated voltage: SELV AC/DC 24 V±20 % or AC 24 V class 2 Frequency: 50/60Hz Power consumption Max: 6.5VA
	R	
Digital output	HF~EH	Free of voltage outputs Rating: AC 230 V 5 A
Analogue output	DA1	Resolution SELV DC 0...10 V 39 mV Current Max. ±1 mA
	DA2	
	DA3	
BUS port	A1/B1	Communication with EC fan driver
	A/B	Modbus network serial connection
Standards and directives		CB Approved ETL Approved

Wiring



Dimension and Installation



6. SRCS controller iS17

iS17 is used to control modulating valve to get water flow dynamic balance based on delta T of water inlet and outlet. If water flow meter is connected, iS17 can read capacity of each unit.



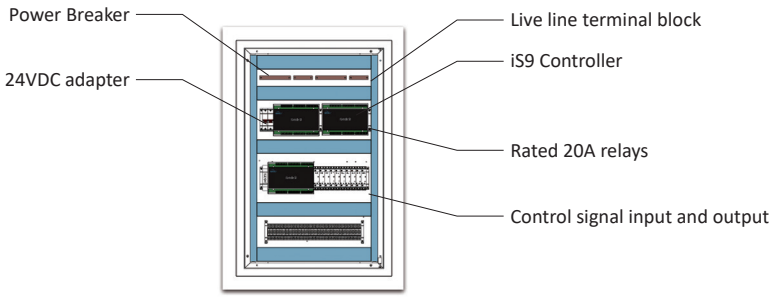
Technical data

I/O		Code	Description
Analogue Input	Temperature sensor (Ti1)	AI1	
	Temperature sensor (Ti2)	AI2	
	Temperature sensor (Ti3)	AI3	
	Temperature sensor (Ti4)	AI4	
Digital input	ON/OFF valve signal input1	DI1	24Vac input
	ON/OFF valve signal input2	DI2	24Vac input
	Float switch input	DI3	Free of voltage
Power supply	Working power supply	R	24VAC or24VDC
	GND	C	Grounding
Digital output	Alarm	Alarm	Voltage-free alarm contact: (a) Standard configuration is (NC).
Analogue output	Modulating signal 1	DA2	Modulating signal1, 0~10vdc
	Modulating signal 2	DA3	Modulating signal2, 0~10vdc
Communication port	BUS port	A1/B1	Communication with water flow meter
	BUS port	A/B	Modbus network serial connection

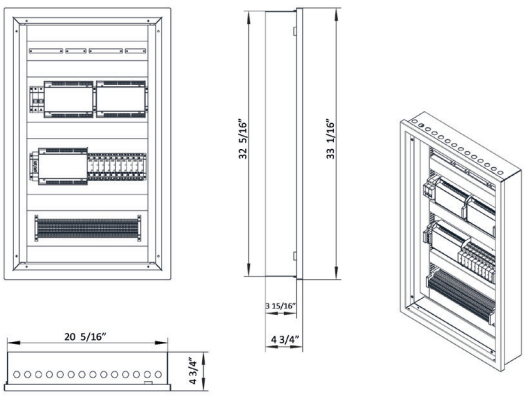
7. iCTRL-3S9

MCTRL-3S9 is used to control light, security, plugs, inverter pump or ventilation equipments.





Dimension



8.SRCS i Controller S9



i Controller S9 IOM controller works with:

- I/O equipment control;
- 3 analog outputs
- External digital inputs;
- 3 analog inputs
- BUS port for end of user;
- BUS ports for AQI transducer or EC motor driver;
- BUS ports for BMS communication;

Technical data

I/O		Code	Rated specification
Analogue Input	Transducer signal input	0~10VDC	0~10VDC signal input
		4~20mA1	4~20mA signal input1
		4~20mA2	4~20mA signal input2
Digital input	NO/NC input1~ NO/NC input10	X1~X10	Operating action： Selectable (N.O./N.C.)
			Contact sensing： SELV DC 0...5 V/max. 5 mA
Power supply	Working power supply	R	Rated voltage: SELV AC/DC 24 V±20 % or AC 24 V class 2
		C	Frequency: 50/60Hz
			Power consumption Max: 6.5VA
Digital output	Output1~ Output10	Y1~Y10	Free of Voltage, Rated current: 10A
LED 灯输出	LED1-LED3（Red）		Used to show working mode
	LED4-LED14（Red）		Used to show relays working status.
Analogue output	0~10Vdc output1	DA1	1st control signal 0~10VDC,
	0~10Vdc output2	DA2	2nd control signal 0~10VDC
	0~10Vdc output3	DA3	3rd control signal 0~10VDC
Communication	BUS port	A/B	Modbus network serial connection
	BUS port	A1/B1	Communication with iSENSORs (maximum 5)
	BUS port	A2/B2	WWP
Standards and directives		CB Approved	
		ETL Approved	

9. Flush-mounted room thermostat



iRTH-400

for 2-pipe, 2-pipe with E-heater, 2-pipe with radiator , 4-pipe fan coil units and radiator

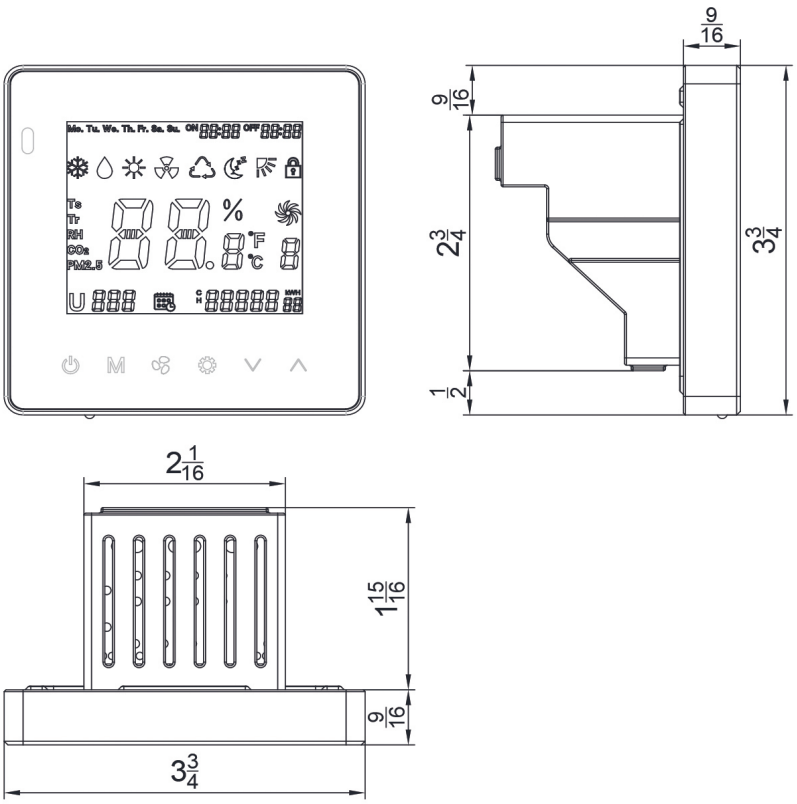
▶ iRTH-400

- Square box with 60.3 mm fixing centers
- AC/DC 12 operating voltage;
- Output for 3-speed or 1-speed fan;
- DC 0…10 V control outputs for EC motor, Modulating valves;
- 2 multifunctional inputs for keycard contact, external sensors etc.

Common features

- Operating modes: Comfort, Economy and Protection
- Automatic or manual fan speed control
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- User and parameter settings can be retained or restored with power loss;
- Backlit LCD;
- Infrared remote control receiver
- 7-day programmable timer
- Modbus communication

Dimensions



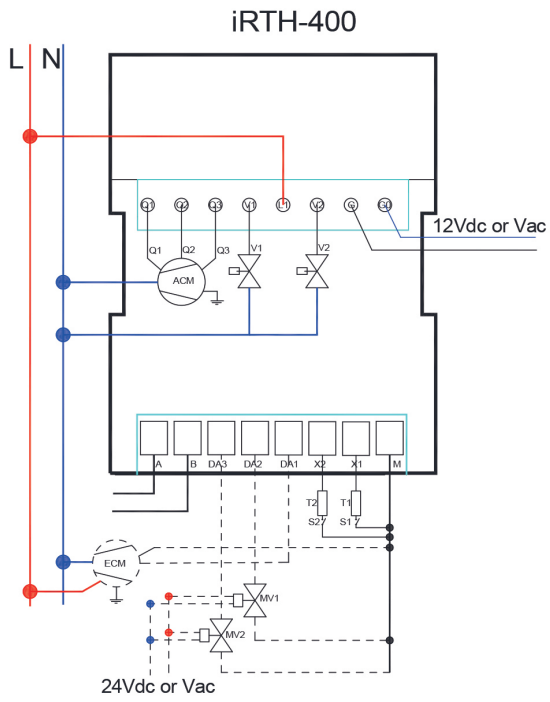
Technical data

Power supply:	Rated voltage	iRTH-400	12~15Vdc/Vac
	Frequency		50/60Hz
	Power consumption	iRTH-400	Max: 3.5VA
	External supply line protection (EU)		Power source with current limitation of max. 10 A

Outputs:	Fan control Q1, Q2, Q3-N Rating	AC 230 V 5 mA...5 A
	Control output DA1, DA2, DA3-G0	
	Resolution	SELV DC 0...10 V 39 mV
	Current	Max. ±1 mA
	Max. total load current through terminal "L" (Qx + DAx)	Max. 7 A

Inputs:	Multifunctional input X1-M/X2-M	
	Temperature sensor input:	
	Type	NTC (3 kW at 25 °C)
	Temperature range	0...70 °C
	Cable length	Max. 80 m
	Digital input:	
	Operating action	Selectable (N.O./N.C.)
	Contact sensing	SELV DC 0...5 V/max. 5 mA
	Parallel connection of several thermostats for one switch	Max. 20
	Insulation against mains voltage (SELV)	4 kV, reinforced insulation
Standards and directives	CB Approved	
	ETL Approved	

Wiring Diagram



iRTH-400

G, G0: Operating voltage thermostat AC or DC 12 V
L1: Operating voltage for fan AC 230 V
Q1: Control output “Fan speed 1 AC 230V”
Q2: Control output “Fan speed 2 AC 230V”
Q3: Control output “Fan speed 3 AC 230V”
DA1: Control output for DC 0...10 V EC motor
DA2: Control output for DC 0...10 V actuator
DA3: Control output for DC 0...10 V actuator
X1, X2: Multifunctional input for temperature sensor or switch
M: Measuring neutral for sensor and switch
A, B: Modbus connection

10. Flush-mounted room thermostat



iRTH-103

This Fan coil thermostats are widely used in all commercial and residential buildings room temperature control, accuracy control provides you comfortable environment, and have the effect of saving energy and reducing up to 30% power consumption.

Specification

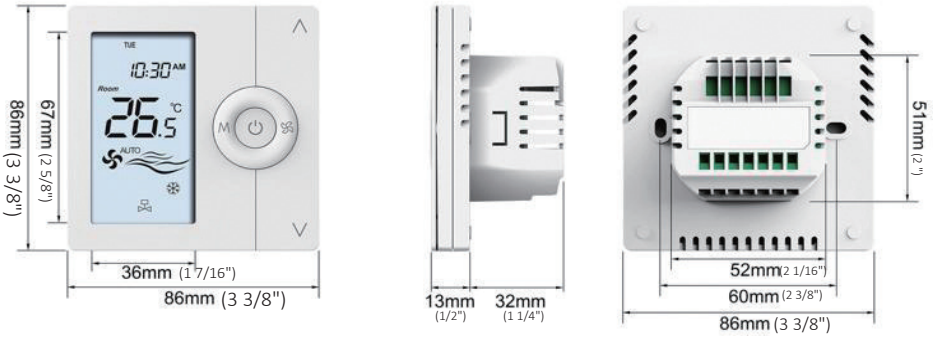
1.Power supply: 220VAC±10%, 50/60 Hz
2.Temperature setting range: 5-35°C
3.Temperature accuracy: ± 0.5°C
4.Temperature control Accuracy: ± 1°C
5.Fan type: Three-speed fan
6.Relay Rating: 5A
7.Valve Control: up to 2pcs ON/OFF valves
8.Remote Sensor Type: NTC10K, B=3950
9.Communication: Modbus 4800,9600,19200bps baud rate
10.Dry contact: for window, door or hotel card holder
11.Storage temperature: -20C~60C, Operating temperature: 0~50°C
12.Max Humidity: 5~95%
13.Power consumption: <2W
14.Grade of protection: IP30
15.Backlight: white
16.Installation type: Flush mounting, Hole pitch: 60mm
17.Dimension: H86XW86XD13 mm

Common features

This universal thermostats work with:

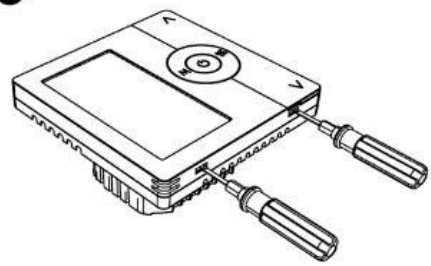
- 2-pipe/4-pipe fan coil units + Floor Heating
- 3-speed fan
- ON/OFF valves
- Timer/Programmable(model No. with T Only)
- Modbus communication(model No. with M Only)
- Dry contact for window or door, Hotel card holder
- External sensor for air or pipe temperature

Dimensions



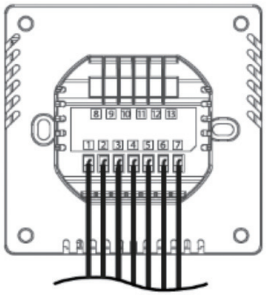
Installation

1

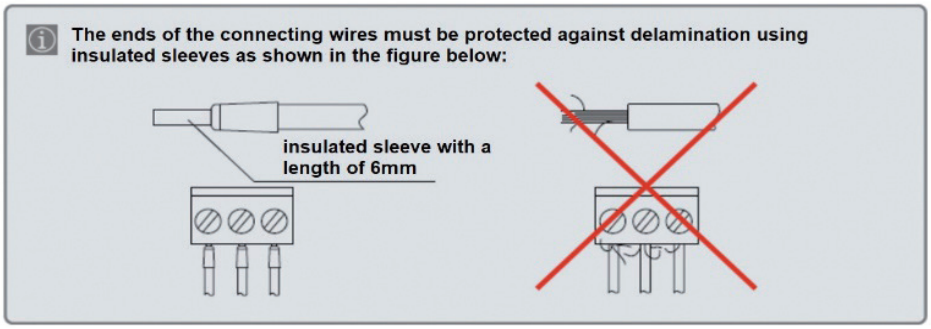


Remove the front cover by prying hooks with flat screwdriver at the bottom of the front panel

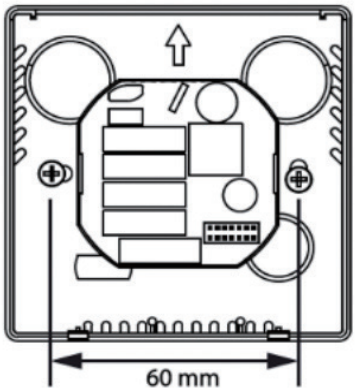
2



For the convenience of installation, the first step is to wire the volt-free wires, low-voltage wires then high-voltage wires. Check the wires are property connected.

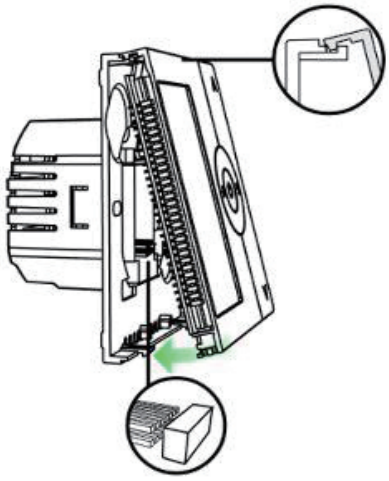


3



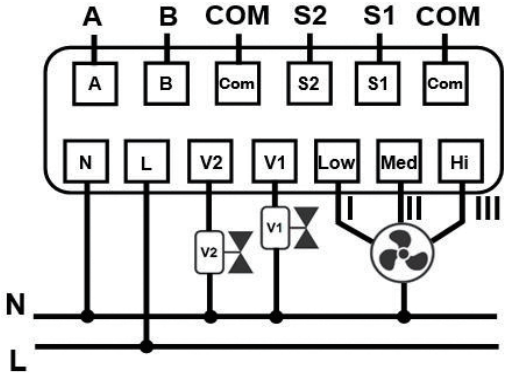
Surface mounting in a 60mm wall box. Make sure the back cover is in the appropriate position (according to the arrow on it)

4



Fit the front part of the casing to the top edge and make sure the pins are properly positioned. Push the front of the casing until you hear positive click.

Wiring Diagram

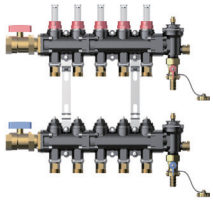


iRTH-103

2-pipe: V1 Cooling/Heating valve
4-pipe: V1: Cooling valve
V2: Heating valve
S1,COM: Dry contact
S2,COM: Remote sensor
A/B: Modbus

Please note:
If parameter item 01=2, V1: Cooling valve, V2: Floor heating
If item01=3, V1: Cooling/Heating valve, V2: Floor heating
If you use it as DX unit, the V1: Compressor, V2: Electric Heat

Fittings- Water flow control and mixing technology

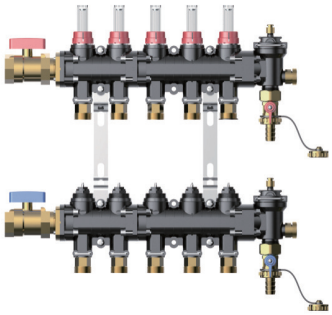









1. Radiation System manifold



1.Air Vents and Drain Valves

Air Vents can be found on the ‘flow’ and ‘return’ arms of the Manifold and are used to remove air from the underfloor heating system. The Drain Valves are used for the initial filling and draining of the system. Quick connector is used for air vent and drain valves, which is easy for maintenance.

2.Flow Gauges

The Manifold’s Flow Gauges are mounted to the flow arm, one per circuit. They are set during the installation to configure the correct flow rate for the circuit and to provide the designed heat output for that circuit – which is determined by the floor build-up and heat losses of the area. These flow gauges also provide a visual indication of the flow rate through each of the floor circuits.

3.Temperature meter

The temperature strip is installed on the ‘flow’ and ‘return’ arms of the Manifold. It is easy to read water temperatures.

4.Manifold Isolation and Commissioning Valves

Connected to the Manifold arms, or the Mixing Unit (if used), the Isolation Valves allow the Manifold to be isolated and tested without affecting the primary floor circuits. The Commissioning Valves control the water flow through the individual floor circuits, allowing the system to be filled, drained and pressure tested. The Commissioning Caps are removed and replace with Actuators, to provide individual circuit control.

5.Quick connector of circuits

EPDM sealing material is used for quick connector. It is easy for installation.

• Features

Manifolds are a key part of hydronic radiant systems, they connect the radiant system pipework (also known as radiant circuits) to the heat source and act as the termination point for these circuits. Manifolds are responsible for circulating water from the heating source through the radiant system circuits whilst controlling the pressure, flow-rates and, if using a mixing unit, controlling the circuit temperature too.

• ABS Manifold Components

The ABS Manifold by Inspiron Air is produced from engineering plastic, which is with features of high and low temperature resistance, corrosion resistance, good toughness, aging resistance and deformation resistance. The ABS manifold is available in a range of sizes and configurations with the ability to control between 3 to 10 zones, making it suitable for a wide variety of hydronic systems at different scales; from a small apartment to a large commercial project. The circuits of each zone are connected to the Manifold by ports on the Manifold’s Flow and Return arms.

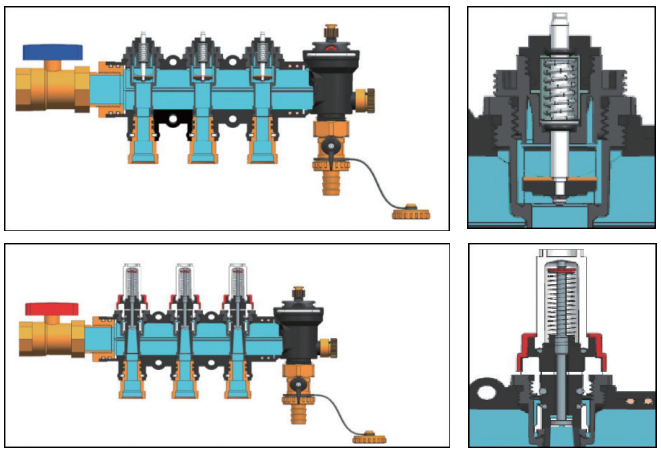
• Model Code

Modle	Connction	Circuits	Circuits con-nection
MHT-03C01	1”F	x 3	3/4”M
MHT-04C01	1”F	x 4	3/4”M
MHT-05C01	1”F	x 5	3/4”M
MHT-06C01	1”F	x 6	3/4”M
MHT-07C01	1”F	x 7	3/4”M

• Specification

Medium fluid	Water or Ethylene glycol solution	Temperatu-re range	5-60˚C
Maxi. Ethylene glycol percent	30%	Flow Gauges	1-5 l/min
Maxi. Working pressure	4bar	Flow Gauges toloracne	10%
Maxi testing pressure	6bar	Arms space	225mm
Maxi. Air vent pressure	6bar	Circuits space	50mm

• ABS Manifold Structure



2. Water Mixer for Radiation system

Water Mixer is used to divert water supply in cooling/ heating mode and change supply water temperature for radiation system according to dew point temperature avoiding the system condensate.



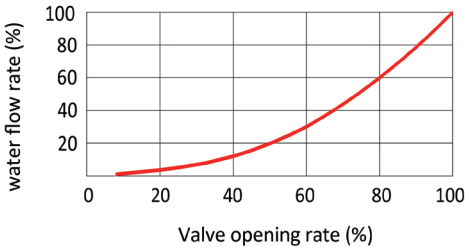
● Ball Valve material:

◈ Valve body: cast copper
◈ Valve ball & shaft: stainless steel
◈ Valve seat: PTFE
◈ Valve seal ring: NBR

● Ball Valve features:

◈ High Differential pressure up to 1MPa and strict closure
◈ High flux and no sediment due to direct flow through of valve
◈ Soft shut-off and open to eliminate water hammer in most applications
◈ Actuator can not be affected by temperature of valve and environment
◈ Quick and easy replacement by movable actuator
◈ The actuator can be installed after the application and pipe was fixed that is efficient for installation,Valve can be operated by general tools when actuator has been removed
◈ The actuator is available for all of 1/2"–1 1/4" ball valves

● Valve water flow curve

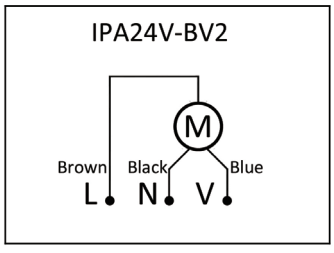
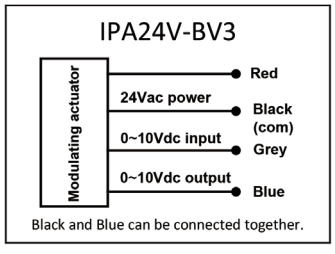


Valve size	KvS	Close Diff. Pressure (MPa)	Working Pressure(MPa)
1" (DN25)	10.0	0.6	2.0

● Valve Actuator

◇Valve Actuator types

There are 3 types of actuator. Two of them are on/off actuator, one of them is modulating actuator.
◇

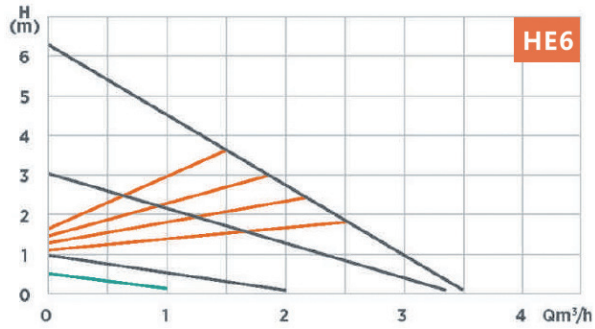
24Vac on/off actuator IPA24V-BV2	24Vac modulating actuator IPA24V-BV3
	

◈ Valve Actuator parameters

Running time: 45S (50Hz/90°)
Material: Upper cover : flame retardant ABS;
Bottom cover: flame retardant PC;
Gear: POM+ferrous powder metallurgy
Torque: 5Nm
IP code: IP40

- **Pump Specification**



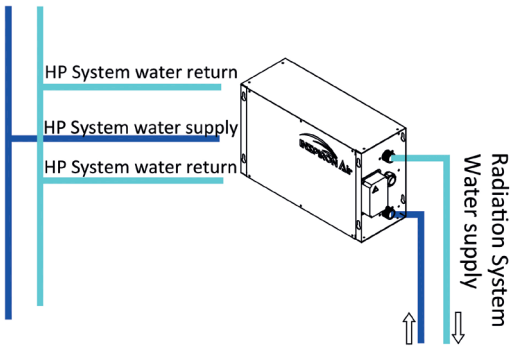


Motor data

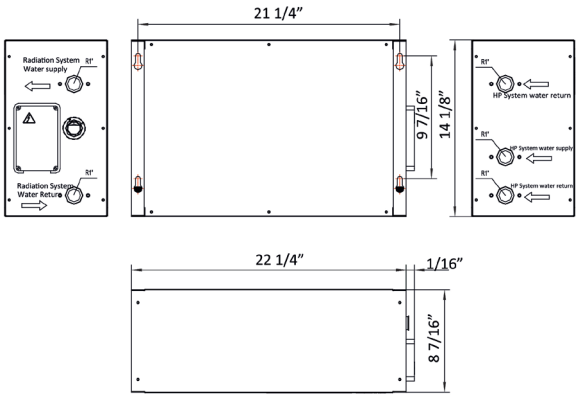
Max. pump lift: 6.0 m
Max. flow rate: 3.200 l/h
Power consumption: 3 - 38 W
Control 3 constant characteristics;
4 proportional characteristics;
Additional function: minimal operation function / manually night mode, automatically night mode, LCD consumption display, venting function, anti-block function
Supply voltage: 1 x 230V, 50 Hz

Motor protection: No external motor protection required
IP rating: IP 42
Ambient temperature: 0 °C to +40 °C
Media temperature: +5 °C to +110 °C
Temperature class: TF 110 as per CEN 335-2-51
Max. system pressure: 10 bar
Connection size DN 15
Pump housing material: 130 mm, 180 mm variant in grey cast iron cataphoresis coated;
EEI ≤ 0.20

- **Water Mixer for Radiation System Installation**

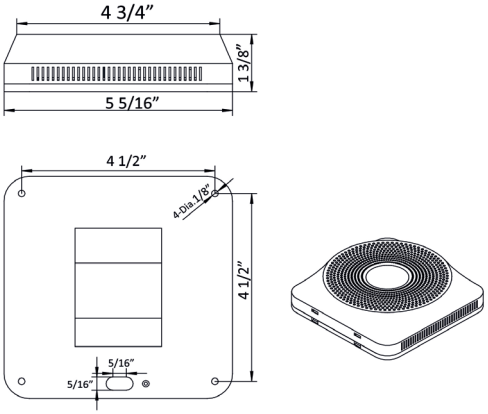


- **Water Mixer for Radiation System dimension drawing**



Remark: iWMK can be installed vertically and Horizontally.

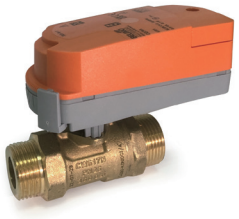
- **AQI transducer S5 (optional)**



3.Belimo Modulating valve

● Rotary actuator (CQ24A-SR) for zone valves

- Torque motor 1 Nm
- Nominal voltage AC/DC 24 V
- Control modulating 2...10 V
- Position feedback 2...10 V
- Snap-assembly of the actuator
- Flow setting variable



Technical data

● Electrical data

- Nominal voltage: AC/DC 24 V
- Nominal voltage frequency: 50/60 Hz
- Nominal voltage range: AC 19.2...28.8 V / DC 21.6...28.8 V
- Power consumption in operation: 0.3 W
- Power consumption in rest position: 0.3 W
- Power consumption for wire sizing: 0.6 VA
- Connection supply / control Cable: 1 m, 4 x 0.34 mm²

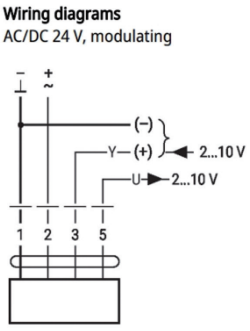
● Functional data

- Torque motor: 1 Nm
- Operating range: Y 2...10 V
- Input impedance: 100 kΩ
- Position feedback: U 2...10 V
- Running time motor: 75 s / 90°
- Sound power level: motor 35 dB(A)
- Position indication: Mechanical

● Safety data

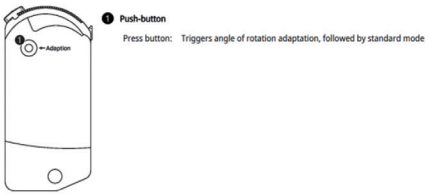
- Protection class IEC/EN: III Safety Extra-Low Voltage (SELV)
- Degree of protection: IEC/EN IP40
- EMC: CE according to 2014/30/EU
- Certification: IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14
- Ambient humidity: Max. 95% RH, non-condensing
- Ambient temperature: 5...40°C [41...104°F]
- Storage temperature: -40...80°C [-40...176°F]

● Electrical installation

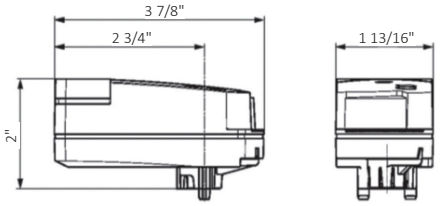


Wire colours: 1 = black 2 = red 3 = white 5 = orange

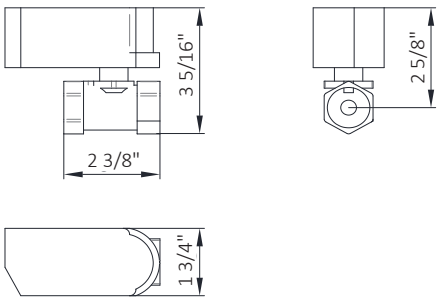
● Operating controls and indicators



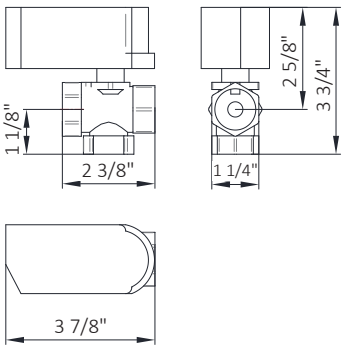
● Dimensions



● DN20 2-way Modulating Valve dimensions



● DN20 3-way Modulating Valve dimensions



4. Motorized Ball Valve



Ball valves are widely used in central air-conditioning cool/ heat water system. It can accurately control the flow of cool/ heat medium depending upon the requirements of the given application.

● Ball Valve features:

◇High Differential pressure up to 1MPa and strict closure
◇High flux and no sediment due to direct flow through of valve
◇Soft shut-off and open to eliminate water hammer in most applications
◇Actuator can't be affected by temperature of valve and environment
◇Quick and easy replacement by movable actuator
◇The actuator can be installed after the application and pipe was fixed that is efficient for installation.
◇Valve can be operated by general tools when actuator has been removed
◇The actuator is available for all of 1/2"-1 1/4" ball valves

Valve size	KvS	Close Diff. Pressure (MPa)	Working Pressure (MPa)
1/2" (DN20)	2.5	0.6	2.0
3/4" (DN20)	6.3	0.6	2.0
1" (DN25)	10.0	0.6	2.0
1-1/4" (DN32)	21.8	0.6	2.0

● Valve Actuator

◇ Valve Actuator types

There are 2 types of actuator. Two of them are on/off actuators.

110~240Vac on/off actuator IPA230V-BV1	24Vac on/off actuator IPA24V-BV2
IPA230V-BV1 M Brown Black Blue L N V	IPA24V-BV2 M Brown Black Blue L N V

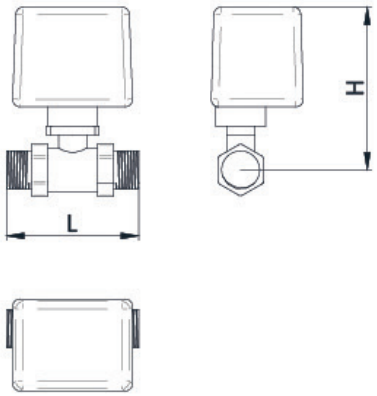
◇ Valve Actuator parameters

Running time: 45S (50Hz/90°)
Material: Upper cover : flame retardant ABS;
Bottom cover: flame retardant PC;
Gear: POM+ferrous powder metallurgy
Torque: 5Nm
IP code: IP40

● Ball Valve material:

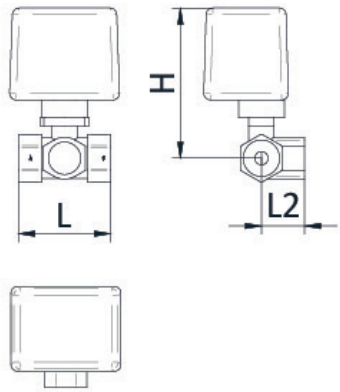
◇ Valve body: cast copper
◇ Valve ball & shaft: stainless steel
◇ Valve seat: PTFE
◇ Valve seal ring: NBR

● Dimensions of 2-way valve



2-way Valve	L	H
1/2" (DN15)	85	106
3/4" (DN20)	90	111
1" (DN25)	102	118
1-1/4" (DN32)	111	130

● Dimensions of 3-way valve



3-way Valve	L	L2	H
1/2" (DN15)	65	30	106
3/4" (DN20)	68	33	111
1" (DN25)	74	40	124

5. Modulating & ON/OFF Ball Valve

Ball valves are widely used in central air-conditioning cool/heat water system.It can accurately control the flow of cool/heat medium depending upon the requirements of the given application. It can be used as modulating valve and on/off valve.



• Ball Valve material:

◇ Valve body: cast copper
◇ Valve ball & shaft: stainless steel
◇ Valve seat: PTFE
◇ Valve seal ring: NBR

• Ball Valve features:

◇ High Differential pressure up to 1MPa and strict closure
◇ High flux and no sediment due to direct flow through of valve
◇ Soft shut-off and open to eliminate water hammer in most applications
◇ Actuator can not be affected by temperature of valve and environment
◇ Quick and easy replacement by movable actuator
◇ The actuator can be installed after the application and pipe was fixed that is efficient for installation,Valve can be operated by general tools when actuator has been removed
◇ The actuator is available for all of 1/2" — 1 1/4" ball valves

Valve size	KvS	Close Diff. Pressure (MPa)	Working Pressu-re(MPa)
1/2" (DN15)	2.5	0.6	2.0
3/4" (DN20)	6.3	0.6	2.0
1" (DN25)	10.0	0.6	2.0
1-1/4" (DN32)	21.8	0.6	2.0

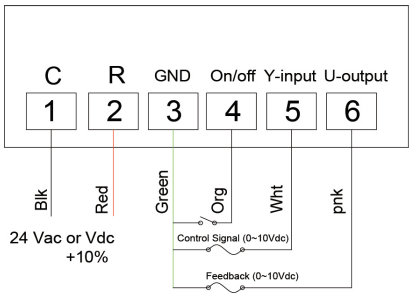
• Valve Actuator

◇ Valve Actuator Working Conditions

Power Supply: 24Vac/Vdc +10%
Control signal: 0~10Vdc, isolation circuit with power supply.
Torque: 10Nm
Power input: 3VA (1.5W)
Working temperature: -15°C ~60°C;
Storage temperature: -20°C ~70°C;
Storage RH: 40%~80% ;
Material:
Upper cover: flame retardant ABS, conform to UL764C;
Bottom cover: flame retardant PC; conform to UL764C

Running time: 45S (50Hz/90°)
Gear: POM+ferrous powder metallurgy

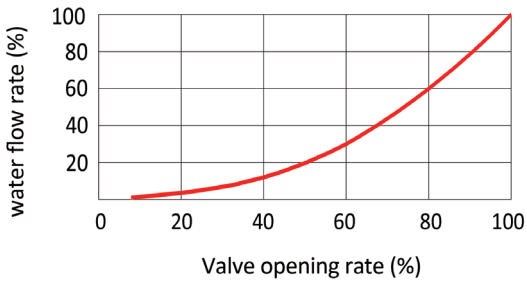
• Valve Actuator Wiring diagram



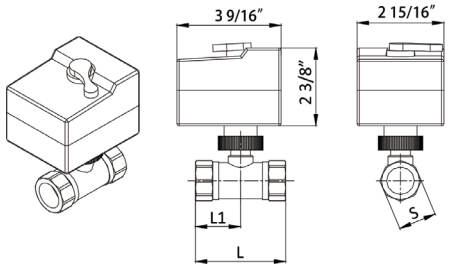
ON/OFF- GND: The contact is closed, Valve open 100%;
The contact is open, valve open control is based on Y input;

Y-GND: Valve open is from 0 to 100%, when Y signal input is from 2.5Vdc~10Vdc.
U-GND: The feedback is from 0~10Vdc;

• Valve water flow curve

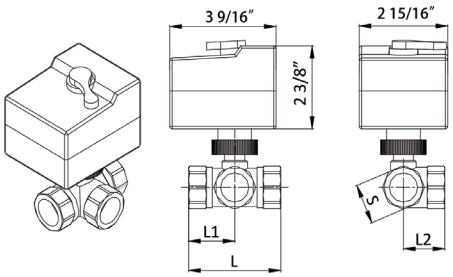


• Dimensions of 2-way valve



2-way valve	L	L1	S
3/4"(DN20)	2 7/16	1 1/4	1 1/4
1"(DN25)	2 15/16	1 7/16	1 9/16
11/4"(DN32)	3 1/4	1 5/8	1 7/8

• Dimensions of 3-way valve



3-way valve	L	L1	L2	S
3/4"(DN20)	2 11/16	2 11/16	1 5/16	1 1/4
1"(DN25)	2 15/16	2 15/16	1 9/16	1 9/16

6. Electronic Modulating Valve



Electronic Modulating Valve consist of electronic motorized actuator and valve body, which is used to adjust the room temperature by control the Open/close or modulating water flow volume .

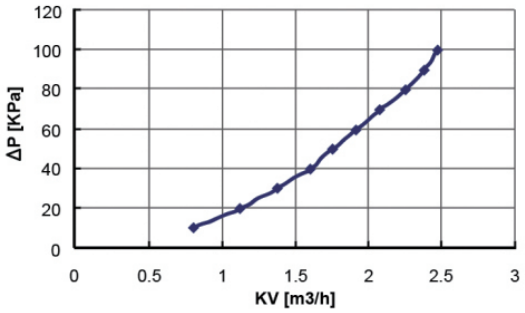
- Valve Body

Material	Valve body	Forging Brass HPb59-1
	Valve stem	Stainless steel (1Cr18Ni9)
	Spring	Stainless steel (1Cr18Ni9)
	Inner cover	PBT
	Piston	FRPA-66
	O-sealing-ring	Nitrile rubber
Valve body rating pressure	1MPa	
Stroke	5.0mm	
Medium	Water, water+ glycol	
Temperature	41~203°F	

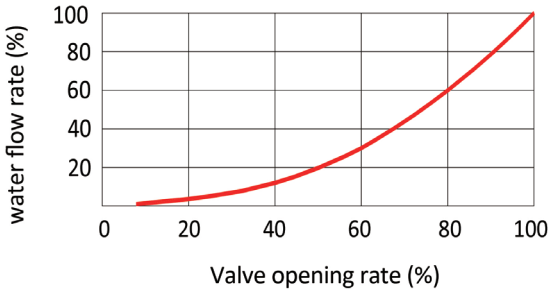
- Actuator Type

Model	IPA24V-EMV2
	Normal closed
Voltage	24Vac
Working force	90~125N
Time	4.5min
Power	3W
Full stroke	5.0mm
Imax	250mA
Wires	2-wire

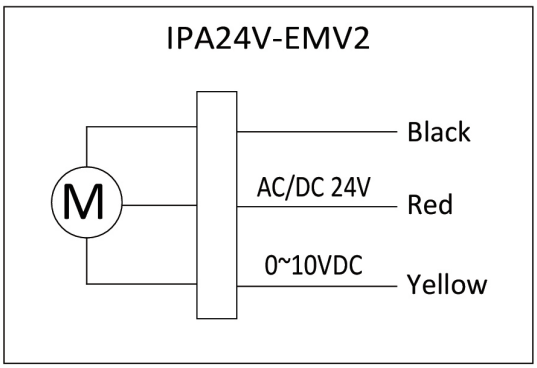
- Differential Pressure Chart



- Valve water flow curve

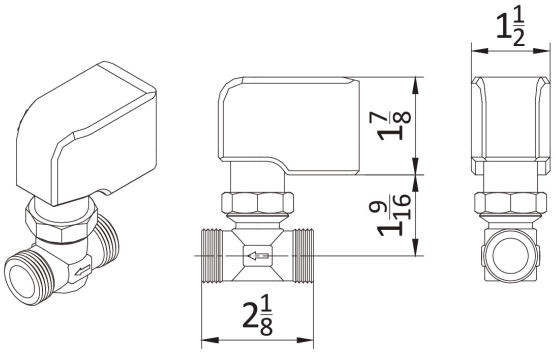


- Actuator wiring diagram



It is normal close valve. When control signal is more than 2Vdc, the valve is opening. When control signal is 10Vdc, the opening arriving at maximum position.

- Dimensions of 2-way valve



7. Electronic Thermal Valve

Electronic Thermal Valve consist of electronic thermal actuator and valve body, which is used to adjust the room temperature by control the Open/ close water flow .



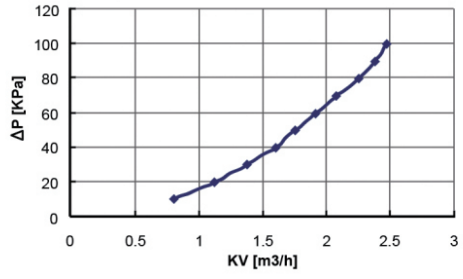
- Actuator Type

Model	THV21-Driver-230A	THV21-Driver-24A
	Normal closed	Normal closed
Voltage	230Vac	24Vac
Working force	90~125N	90~125N
Time	4.5min	4.5min
Power	3W	3W
Full stroke	3.5mm	3.5mm
Imax	150mA	250mA
Wires	2-wire	2-wire

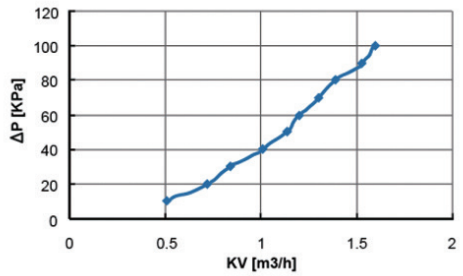
- Valve Body Specification

Material	Valve body	Forging Brass HPb59-1
	Valve stem	Stainless steel (1Cr18Ni9)
	Spring	Stainless steel (1Cr18Ni9)
	Inner cover	PBT
	Piston	FRPA-66
	O-sealing-ring	Nitrile rubber
Valve body rating pressure	1MPa	
Stroke	3.5mm	
Medium	Water, water+ glycol	
Temperature	5~95°	

- Differential Pressure Chart

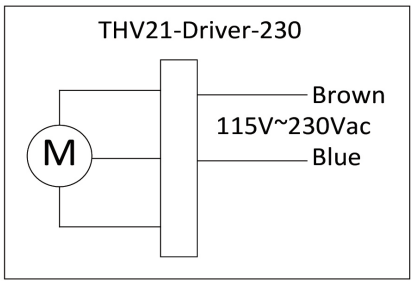


3/4" valve

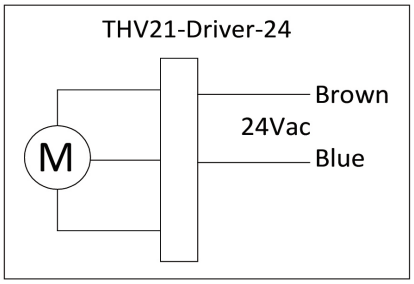


1/2" valve

- Actuator wiring diagram

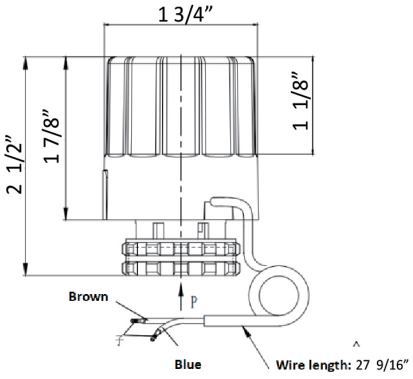


It is normal close valve. When it is powered, the valve is opened.

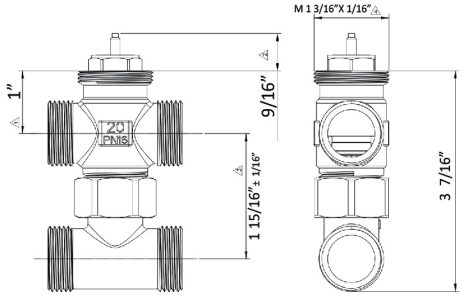


It is normal close valve. When it is powered, the valve is opened.

- Dimensions of Electronic Thermal Actuator



- Differential Pressure ChartDimensions of 3-way valve



8. Electronic Thermal Manual Adjustment Valve



Electronic Thermal Manual Adjustment Valve consist of electronic thermal actuator and valve body, which is used to adjust the room temperature by control the Open/close water flow . There are 6-position for 6 KV.

- Actuator Type

Model	THV21-Driver-230B	THV21-Driver-24B
	Normal open	Normal open
Voltage	230Vac	24Vac
Working force	90~125N	90~125N
Time	4.5min	4.5min
Power	3W	3W
Full stroke	3.5mm	3.5mm
Imax	150mA	250mA
Wires	2-wire	2-wire

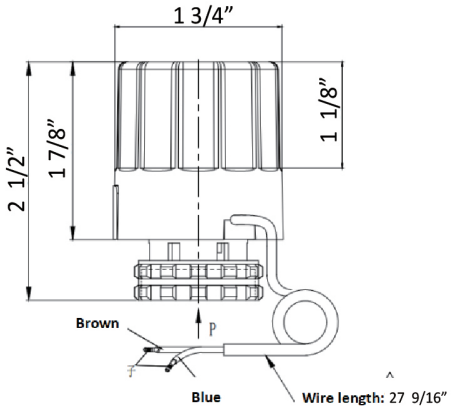
- Valve Body Specification

Material	Valve body	Forging Brass HPb59-1
	Valve stem	Stainless steel (1Cr18Ni9)
	Spring	Stainless steel (1Cr18Ni9)
	Inner cover	PBT
	Piston	FRPA-66
	O-sealing-ring	Nitrile rubber
Valve body rating pressure	1MPa	
Stroke	3.5mm ,5.0mm	
Medium	Water, water+ glycol	
Temperature	5~95°	

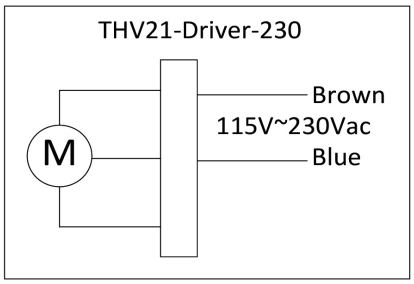
- KVS setting

Position Setting	1	2	3	4	5	6
KVS	0.096	0.1561	0.2257	0.2763	0.485	1.31136

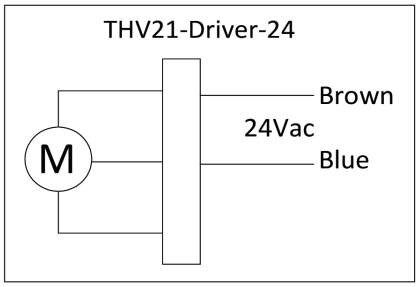
- Dimensions of Electronic Thermal Actuator



- Actuator wiring diagram

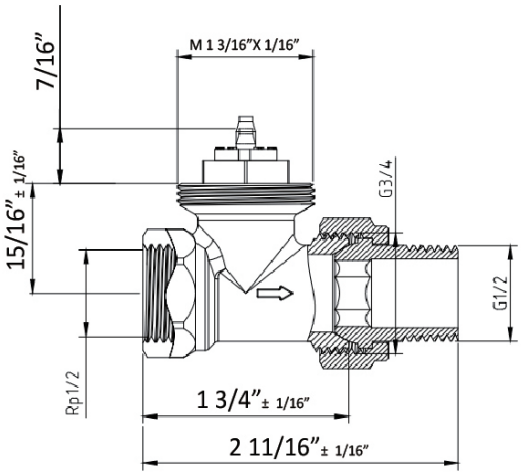


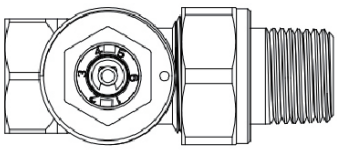
It is normal close valve. When it is powered, the valve is opened.



It is normal close valve. When it is powered, the valve is opened.

- Dimensions of 2-way valve





9. Ultrasonic heat meters

IPA - U - 15 A

A	A-Modbus RTU B-M-bus
Dia.	15, 20, 25, 32, 40
U	Ultrasonic heat meter
IPA	Inspiron Air

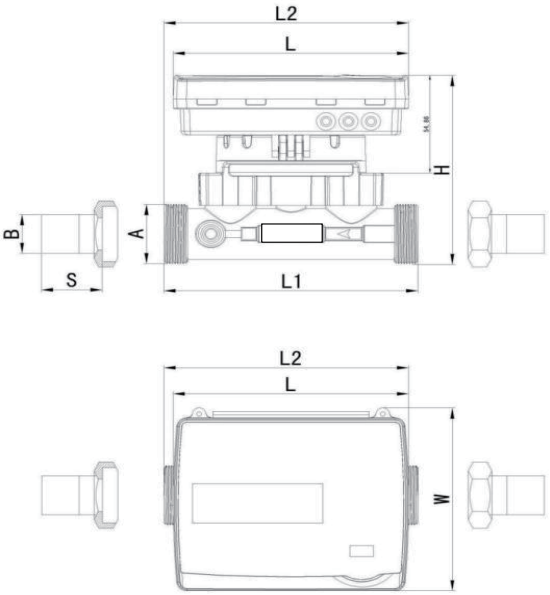


The compact design uses ultrasonic measurement technology

- Due to ultrasonic technology, constantly and high measurement sensitivity
- Wide dynamic measuring range and low pressure loss
- Via the LCD display providing access to meter data
- Due to the lack of moving parts, high measurement accuracy
- 12VDC power supply &Lithium battery as backup, 5 years lifetime
- Low pressure loss
- Can be mounted horizontally or vertically in position desired
- IP65 protection class
- Modbus RTU protocol
- Comprehensive fault indication
- MC certified

Dimensions

Nominal Dia.	DN15	DN20	DN25	DN32	DN40
A inch	G3/4”	G1”	G1-1/4”	G1-1/2”	G2”
B inch	R1/2”	R3/4”	R1”	R1-1/4”	R1-1/2”
L(inch)	4 3/4”	4 3/4”	4 3/4”	4 3/4”	4 3/4”
L1(inch)	4 5/16”	5 1/8”	6 1/4”	7 1/16”	7 7/8”
L2(inch)	4 9/16”	4 15/16”	5 1/2”	5 15/16”	6 5/16”
H(inch)	3 15/16”	4 3/16”	4 7/16”	4 11/16”	5 1/16”
W(inch)	4”	4”	4”	4”	4”
S(inch)	1 3/4”	1 15/16”	2 1/4”	2 1/4”	2 7/16”



C SUPPORT AND TOOLS



Inspiron Air’s software and support tools are designed to streamline all stages of project design, application, installation and service/maintenance.

Inspiron Air provides multiple tools to aid the design, selection, analysis, submission, and general support for its line up of VWV and VAV systems.
The tools have been designed to be simple to use, easily accessible and to address the various considerations and steps in the evolution of a residential or commercial project, aimed at helping the architect, consulting engineer, contractor, installation technician, and service company to enhance workflows and general project execution.

iFan Coil Unit Selection Software

A key tool for Reps, Consulting Engineers and Contractors to use is the suite of Fan Coil Unit Selection software.
It is a single plane version software to provide quick, easy and above all accurate selections of Fan Coil Units.



Inputs can be met a variety of project needs and has the following features and benefits:

» Selection based on water Delta T;

» Selection based on Water flow;

» Selected by Imperial or Metric

» Select and customize indoor unit types with options/accessories;

» CAD files for all products;

» PDF files for all products wiring diagram