

iVECTOR.

A NEW GENERATION OF
INTELLIGENT FAN CONVECTORS



NOW INCLUDING
the iVECTOR 4-pipe



heating through innovation.



MODERN HEATING
SOLUTIONS.

In the USA today, we consume vast quantities of energy in our buildings. For example, the power we use to heat our homes and provide us with hot water alone accounts for more than 20% of our national CO₂ emissions!

In today's world of growing environmental concerns and rising fuel prices it is clear that the challenge for modern heating solutions is how to provide indoor comfort in the most energy efficient way possible.

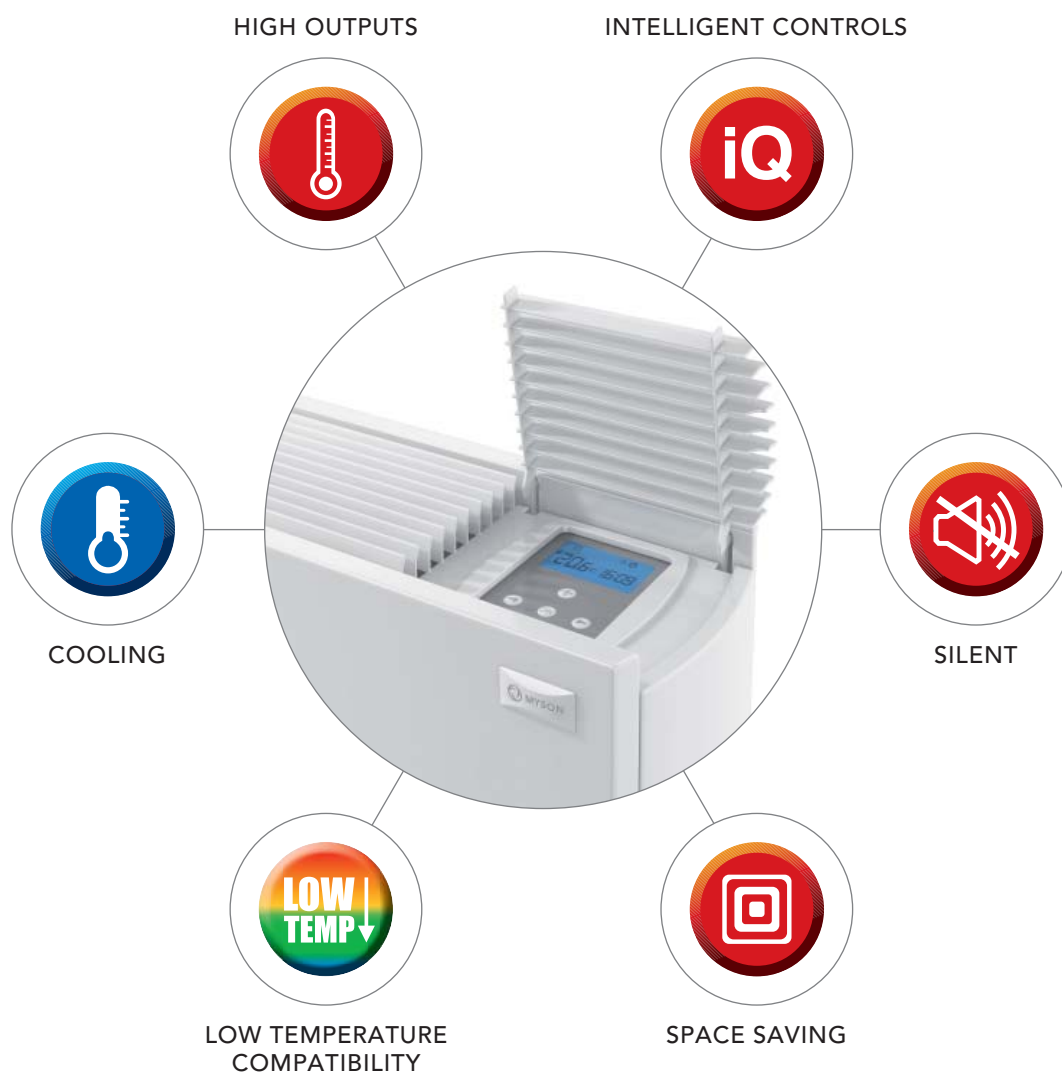


MYSON is one of the oldest and most respected names in the heating industry. We have been manufacturing fan convectors for over 50 years. As one of North America's leading brands, with a reputation for maximising the role of innovation and technology in our operations, we are committed to helping reduce national CO₂ emissions by developing energy efficient products that are capable of operating effectively at low flow temperatures.

The iVECTOR.

The **iVECTOR** is the first in a new generation of intelligent fan convectors. It has been designed specifically to combine all the traditional advantages of a fan convector with a range of new product features made possible by our latest energy efficient heating technology. Overall, the **iVECTOR** provides an exciting package of significant benefits:

INTRODUCTION
TO INTELLIGENT
HEATING.



EFFICIENT &
EFFECTIVE
PERFORMANCE.



High outputs

The **iVECTOR** has a large surface area heat exchanger. This feature combined with forced convection from its in-built fan produces high heat outputs.



Space saving

Due to these high heat outputs, **iVECTORs** are much smaller than panel radiators with equivalent outputs and so take up less wall space.



Silent

Sound levels were a key consideration during the development stage of the **iVECTOR**. **MYSON** is proud to have now delivered the quietest fan convector we have ever made, with no compromise on heat outputs.



Rapid heat

The **iVECTOR** has a much lower water content than other heat emitters, such as panel radiators and underfloor heating. In fact, the water content is less than 10% of that of a traditional radiator. Its lower thermal mass means the **iVECTOR** works quickly and efficiently.



Style

With its compact size and modern design, the **iVECTOR** is a product that delivers indoor comfort without compromising on style.



Intelligent controls

The **iVECTOR** has the most advanced controller that **MYSON** have ever developed and it is flexible enough to suit all lifestyle requirements with both 'easy' and 'full' operating modes plus an in-built option to link to a building management system (BMS).



Low temperature compatibility

The **iVECTOR** works efficiently with both low temperature systems, such as heat pumps, and traditional systems, such as gas/oil-fired boilers.



Easy to install

Due to its solid, one-piece casing the **iVECTOR** is extremely easy to install.



Cooling

Not only is the **iVECTOR** great at heating spaces but, when connected to a chilled water supply, it can now rapidly cool spaces as well.





4-Pipe Model

The 4-pipe **iVECTOR** model has two pipes connecting to a heat source and two pipes connecting to a chiller. This feature enables an enhanced facility for indoor comfort within a building whereby the **iVECTOR** can provide both heating and cooling to different parts of the same building at the same time -an extremely useful option when one area is in shade whilst another concurrently has a sunny aspect i.e. north and south facing aspects.

- The main difference between the 2 and 4-pipe **iVECTOR** is that the 4-pipe **iVECTOR** has 2 heat exchangers, one for heating and one for cooling.
- This means that each heat exchanger has its own set of flow and return pipes, one from a boiler and one from a chiller.
- Critically this means, from a system design point of view, that if a system has multiple **iVECTOR**s installed some can be used for heating whilst others can be used for cooling at the same time.
- When would this facility be required? A large building may experience different temperatures in different areas. For example, a south facing façade will typically be warmer than a north facing one. This means that while heating may be required on the north side of the building, the south side with its increased solar gains may require cooling.
- This means that the **iVECTOR** allows a system to work to its full flexibility and buildings can maintain an all-round comfortable temperature throughout the year.

Note: The 4-pipe **iVECTOR** will require the 4-pipe valve kit for heating and cooling modes.



2-Pipe 3/4" BSP Connection



4-Pipe 3/4" BSP Connection

TECHNICAL DATA.

2-Pipe.

Dimensions.

Model	Nominal Height (inches)	Depth (inches)	Length (inches)
iV60x080	23 5/8	6	31 1/2
iV60x100	23 5/8	6	39 3/8
iV60x120	23 5/8	6	47 1/4
iV60x140	23 5/8	6	55 1/8
iV60x160	23 5/8	6	63

Sound Levels.

Model	Sound Pressure (dBA) (at 2.5m)		
	Normal	Medium	Boost
iV60x080	24.8	37.7	47.9
iV60x100	27	35.8	47.9
iV60x120	24	40.5	51.7
iV60x140	24.9	35.5	54.8
iV60x160	27	35	56.3

Sound levels tested in accordance with ISO 3741.

Weight, Water Content and Motor Power.

Model	Motor Power (W)	Water Content (gal)	Unpacked Weight (lbs)
iV60x080	32	0.174	50
iV60x100	35	0.243	61
iV60x120	44	0.314	72
iV60x140	53	0.383	83
iV60x160	65	0.454	94

Flow Rates/Pressure Losses - Heating/Cooling.

Flow (GPM)	Pressure Drop (FT HD)				
	iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
0.44	1.00	1.50	1.92	2.16	2.50
0.66	2.16	3.00	3.92	4.33	5.00
0.97	3.66	5.00	6.50	7.08	3.16
1.45	5.50	7.42	9.58	10.33	11.92
2.20	7.66	10.33	13.08	14.16	16.16
3.30	10.25	13.58	17.08	18.41	21.08

Air Flow Rates.

Condition	Fan Speed	Air Flow CFM				
		iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
Heating	Normal	53	80	106	132	159
	Medium	87	130	174	217	261
	Boost	145	218	290	363	436
Cooling	Normal	38	58	77	96	115
	Medium	65	97	129	162	194
	Boost	119	178	237	297	356

Performance Data.

Model	Fan Speed	Heat Output (Btu/H)								Cooling (Btu/H)	
		Flow (GPM)	EWT / Entering Air Temp @65 Degrees						Condition 45-54-81		
			120	130	140	150	160	170	180	Total	Sensible
iV60x080	Normal	1.5	3791	4543	5304	6073	6850	7634	8423	2412	1798
	Medium	1.5	4998	5988	6990	8003	9026	10058	11098	3842	2829
	Boost	1.5	6709	8035	9377	10733	12102	13483	14874	5623	4187
iV60x100	Normal	2	5190	6218	7260	8313	9377	10450	11531	3450	2569
	Medium	2	6817	8167	9533	10915	12310	13717	15134	5459	4019
	Boost	2	9291	11126	12984	14862	16757	18668	20593	7861	5855
iV60x120	Normal	2.65	6261	7503	8761	10033	11317	12613	13919	5186	3177
	Medium	2.65	8334	9984	11655	13345	15051	16771	18505	6688	4920
	Boost	2.65	11876	14222	16597	18996	21419	23862	26323	9956	7414
iV60x140	Normal	3.1	7361	8821	10299	11795	13305	14829	16364	5084	3787
	Medium	3.1	9856	11807	13783	15781	17798	19832	21882	7916	5824
	Boost	3.1	14329	17158	20023	22918	25840	28787	31755	12055	8977
iV60x160	Normal	3.5	8486	10169	11784	13597	15338	10094	18864	5899	4395
	Medium	3.5	11377	13630	15911	18217	20546	22895	25262	9141	6728
	Boost	3.5	16776	20089	23443	26832	30253	33702	37178	14150	10536

Relative Humidity: Sensible cooling at 50%.

4-Pipe.

Dimensions.

Model	Nominal Height (inches)	Depth (inches)	Length (inches)
iV60x080	23 5/8	6	31 1/2
iV60x100	23 5/8	6	39 3/8
iV60x120	23 5/8	6	47 1/4
iV60x140	23 5/8	6	55 1/8
iV60x160	23 5/8	6	63

Sound Levels.

Model	Sound Pressure (dBA) (at 2.5m)		
	Normal	Medium	Boost
iV60x080	24.8	37.7	47.9
iV60x100	27	35.8	47.9
iV60x120	24	40.5	51.7
iV60x140	24.9	35.5	54.8
iV60x160	27	35	56.3

Sound levels tested in accordance with ISO 3741.

Weight, Water Content and Motor Power.

Model	Motor Power (W)	Water Content (gal)		Unpacked Weight (lbs)
		Heating	Cooling	
iV60x080	32	0.087	0.174	115
iV60x100	35	0.122	0.243	140
iV60x120	44	0.159	0.314	164
iV60x140	53	0.192	0.383	189
iV60x160	65	0.227	0.454	215

Electrical Data: All iVECTOR models require an electrical supply of 120V 60Hz.

Flow Rates/Pressure Losses - Cooling.

Flow (GPM)	Pressure Drop (FT HD)				
	iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
.44	1.00	1.50	1.92	2.16	2.50
.66	2.16	3.00	3.92	4.33	5.00
.97	3.66	5.00	6.50	7.08	8.16
1.45	5.50	7.42	9.58	10.33	11.92
2.20	7.66	10.33	13.08	14.16	16.16
3.30	10.25	13.58	17.08	18.41	21.08

Flow Rates/Pressure Losses - Heating.

Flow (GPM)	Pressure Drop (FT HP)				
	iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
0.44	2.00	3.00	3.83	4.33	5.00
0.66	4.33	6.00	7.83	3.66	10.00
0.97	7.33	10.00	13.00	14.16	16.33
1.45	11.00	14.83	19.16	20.66	23.83
2.20	15.33	20.66	26.16	28.33	32.33

Air Flow Rates.

Condition	Fan Speed	Air Flow CFM				
		iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
Heating	Normal	53	80	106	132	159
	Medium	87	130	174	217	261
	Boost	145	218	290	363	436
Cooling	Normal	38	58	77	96	115
	Medium	65	97	129	162	194
	Boost	119	178	237	297	356

Performance Data.

Model	Fan Speed	Heat Output (Btu/H)								Cooling (Watts)		
		Flow (GPM)	EWT / Entering Air Temp @65 Degrees						Condition 45-54-81			
			120	130	140	150	160	170	180	Flow (GPM)	Total	Sensible
iV60x080	Normal	1.32	2681	3213	3752	4296	4846	5401	5961	1.5	2292	1708
	Medium	1.32	3546	4249	4961	5681	6408	7141	7880	1.5	3650	2687
	Boost	1.32	4782	5728	6686	7655	8633	9619	10613	1.5	5342	3977
iV60x100	Normal	1.54	3652	4376	5109	5850	6599	7355	8116	2	3277	2441
	Medium	1.54	4804	5756	6720	7694	8678	9670	10671	2	5186	3818
	Boost	1.54	6564	7862	9175	10503	11843	13195	14557	2	7468	5562
iV60x120	Normal	1.76	4373	5240	6118	7006	7903	8807	9717	2.65	4927	3018
	Medium	1.76	5816	6967	8133	9311	10501	11702	12911	2.65	6353	4674
	Boost	1.76	8277	9911	11565	13237	14925	16626	18340	2.65	9458	7044
iV60x140	Normal	1.98	5131	6148	7179	8221	9273	10334	11404	3.1	4830	3598
	Medium	1.98	6861	8218	9593	10983	12386	13801	15227	3.1	7520	5533
	Boost	1.98	9949	11913	13901	15909	17937	19980	22040	3.1	11452	8528
iV60x160	Normal	2.20	5907	7077	8263	9462	10673	11894	13125	3.5	5604	4175
	Medium	2.20	8118	9729	11360	13009	14674	16355	18048	3.5	8684	6392
	Boost	2.20	12082	14473	16895	19343	21815	24308	26820	3.5	13442	10009

Relative Humidity: Sensible cooling at 50%.



MYSON

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