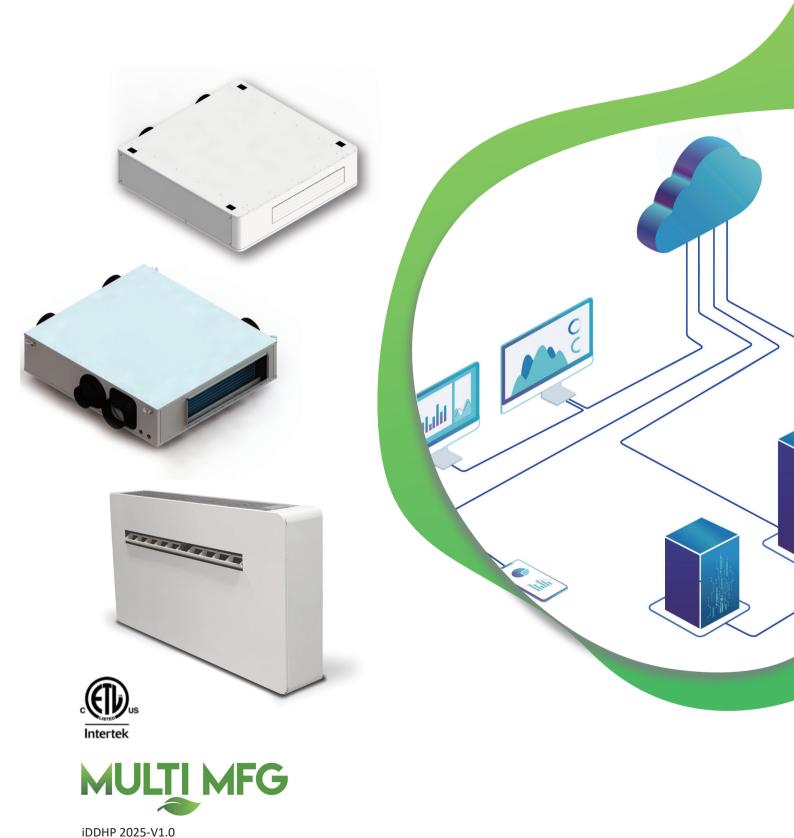
# **Integrated Dual Duct Heat Pump**





## Quality products; Sustainable solutions; Superior service

This document is dedicated to those looking for advanced and specialized solutions for heating, cooling, domestic hot water, air-conditioning, renewal and purification of air in the residential area.

Our systems are designed to increase the comfort level in the places where we live or work, including but not limited to single-family homes, multi-family facilities, hospitality, or other applicable installations.

Our double-duct heat pumps will provide year round comfort, focused on substantial energy savings, outside air for ventilation, and a reduction in CO2 emissions.

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## **ABOUT MFG**

## **OUR BUSINESS PHILOSOPHY IS SIMPLE**

Our success is entirely dependent on our ability to contribute to our customers' success.

## **WE STRIVE TO:**

- 1. Manufacture the highest quality product available.
- 2. Design high efficiency product, with common sizes and styles that can be installed in retrofit or new construction projects.
- 3. Offer product with thorough and thoughtful design, with features that make it easier to install and service our product.
- 4. Provide the best customer service and customer support experience.

With our 25+ years' experience in the Multi-family Residential Industry, we integrate recommendations and ideas given to us by our Architects, Specifying Engineers and Mechanical Contractors into the design of our product. We listen to our customers and are constantly looking for ways to improve product for our industry.

Our goal is to manufacture the highest efficiency product, with the best customer service and product support.





# INTEGRATED DUAL DUCT HEAT PUMP





## WALL MOUNTED

Wall Mounted units are slim and sleek. The Inspiron Air Double-Duct,wall Mounted heat pump can be located high or low on a wall using a factory-supplied bracket, making installation quick and simple. Special adapters enable the unit to be installed perpendicular to an outside wall, used with many louver styles, or even vented through an existing window frame with no construction required. An electronically controlled louver with an auto-swing function distributes airflow comfortably and uniformly throughout the space. Wall Mounted units are ideal for any area with free wall space. Our Wall Mounted unit is available with an optional ERV module. The powerful exhaust fan with 0.45" WC ESP enables flexibility in venting and high efficiency.

#### MAIRHP-35-WM-ERV



## Supply air

Supply air is provided an electronically controlled louver that can be set at any angle or continuously swinging.

#### Return air

Return air from the space enters the unit through the integral grille located on top of the unit.

#### Outside air intake

The 8-inch round outside air intake connection can be ducted or used with an adapter with up to 0.5" WC external static pressure (combined between intake and exhaust). Use with any approved or custom louvers/ as long as they comply with the minimum requirements.

#### Outside air exhaust

The extremely powerful 1800 RPM ECM backward exhaust fan protrudes from the rear of the unit by 2-8" inches; this is designed to sit inside the duct or adapter. The fan's outside diameter is 11-inch, and there must be clearance around the fan so it does not vibrate against the duct when it is operating. We recommend a duct diameter of at least 8-inch. Use with any of the approved or custom louvers/as long as they comply with the minimum requirements.

#### **Key Features**

Compact unit
Easy to install
Paintable sleek cabinet
Electronically controlled air louver
Auto-restart
Washable filters
220V /1Ph /60Hz or 115V /1Ph /60Hz
R32 refrigerant

#### Operation

Cool, heat, dehumidify, and auto Selectable fan speeds, low, med, high and auto Fresh air ERV - field configurable amount of fresh air

#### Mounting

High wall Low wall Sidewall with adapter Multiple adapter options



#### Air flow

Dual 8" external vents.

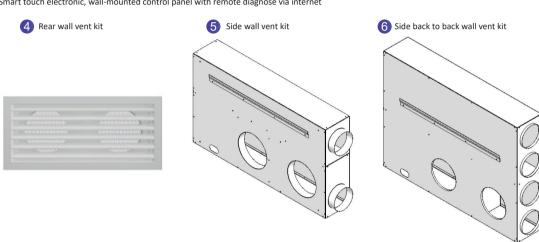
Available 0.5" WC for external ducting, adapters, and louvers.

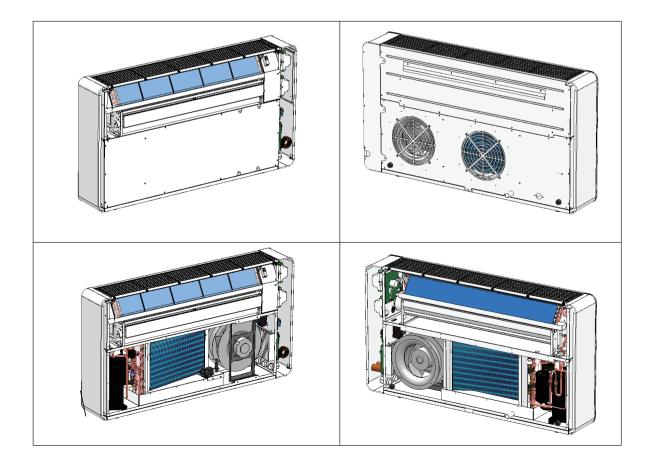
#### Included controls

Touch electronic wall-mounted control panel Remote handset

#### Options

- 1 900 or 1,800W electric heat
- 2 With or without ERV
- 3 Smart touch electronic, wall-mounted control panel with remote diagnose via internet







The total capacity and efficiency of the heat pump and the ERV cannot be used to heat/cool the room and is only shown to demonstrate the capacity and efficiency when compared to a system without an ERV. A percentage of the heat pump capacity is required to heat/cool the outdoor air, which is not recovered by the ERV.

**ERV** performance

General								
Flow type	counter flow entl	halpy exchanger						
Material	Mold and bacteri	Mold and bacteria resistant, washable polymer membrane.						
		30CFM 40CFM 80CFM						
Efficiency of core in v	vinter							
Sensible	%	81.40	77.50	72.80				
Latent	70	68.50	62.30	56.40				
Efficiency of core in s	ummer							
Sensible	%	70.20	65.10	58.20				
Latent	70	52.40 53.50		54.80				
Filter								
Indoor air	Mont		Merv3/optional Merv13	}				
Outside air	Merv	Merv13						
Leakage								
Internal	W.C.	2.6% at 0.40"	2.4% at 0.40"	2.2% at 0.40"				
External	vv.C.	2.8% at 1.0"	2.7% at 1.0"	2.5% at 1.0"				

#### Cooling

Indoor: 80°F, W.B. 67°F; Outdoor: 95°F, W.B. 75°F

		30CFM	40CFM	80CFM						
Heat pump										
Range	D4/l-		6500~12000							
Nominal	Btu/h		9600							
Input power	W		864							
- Cfficion ou	EER		11.1							
Efficiency	SEER 14.8									
ERV										
Sensible recovery	Btu/hr	440	700	1000						
Latent recovery	Btu/III	300	500	660						
Input power	W	24	36	70						
Efficiency	EER	16.12	13.68	9.77						
Combined Heat Pump	+ ERV									
Range	Btu/h 7240~12740		7700~13200	8160~13660						
Nominal	Btu/II	10340	10800	11260						
Input power	W	888 900		934						
Efficiency	EER	11.6	12.0	12.05						

#### Heating 47°

Indoor: 70°F, W.B. 60°F; Outdoor: 47°F, W.B. 43°F

		30CFM	40CFM	80CFM					
Heat pump									
Range	Btu/hr	6760~12500							
Nominal	Btu/III		9400						
Input power	W		810						
Efficiency	COP		3.41						
ERV									
Recovery	Btu/hr	700	1100	1600					
Input power	W	16	30	60					
Efficiency	СОР	12.82	10.75	7.82					
<b>Combined Heat Pump</b>	+ ERV								
Range	Dt/b	7460~13200	7860~13600	8360~14100					
Nominal	Btu/h	10100	10500	11000					
Input power	W	826	840	870					
Efficiency	COP	3.58	3.66	3.7					



#### Heating 13°F

Indoor: 70°F, W.B. 60°F; Outdoor: 13°F, W.B. 9°F

		30CFM	40CFM	80CFM					
Heat pump									
Range	Dt/b.n		4735~7600						
Nominal	Btu/hr		5800						
Input power	W		750						
Efficiency	СОР		2.26						
ERV									
Recovery	Btu/hr	1860	2960	4300					
Input power	W	16	30	60					
Efficiency	СОР	34.07	28.92	21					
Combined Heat Pump	+ ERV								
Range	Dt/b	6595~9460	7695~10560	9035~11900					
Nominal	Btu/h	7660	8760	10100					
Input power	W	766	780 810		766 780				
Efficiency	СОР	2.93	3.29	3.65					

#### Fresh air Volume

Indoor	Туре	ECM centrifugal					
	CFM	200 - 450					
	Available ESP	N/A					
	Supply connection	Integrated					
	Return connection	Integrated					
	Speeds	High, Medium, Low and Auto					
	Filter	Merv3					
Fresh air	Туре	ECM centrifugal					
intake	CFM	30~80					
	Connection	Integrated					
	Speeds	High, Medium, Low and Auto					
	Filter	MERV 13					
Stale air	Туре	ECM centrifugal					
intake	CFM	30~80					
	Connection	Integrated					
	Speeds	High, Medium, Low and Auto					
	Filter	MERV 3					
outdoor	Туре	ECM centrifugal					
	CFM	400~650					
	Available ESP	0.5					
	Supply connection	8" round					
	Return connection	8" round					
	Speeds	Auto					



#### **Electrical**

General		220V	115V	
Volt range		207~251	103~126	
Hz/ phase		60/sing	gle	
Power supply		LCDI powe	r cord	
Power factor		0.96		
Cooling (nominal)		5	10	
Cooling (max)	A	5.5	11	
Heating-heat pump only (nom.)		4.5	9	
Heating - heat pump only (max)		5.2	10.4	
Input power (standby)	W	10.8		
Input power (off mode)	W	1.7		
compressor	RLA	5.5	11	
	LRA	9.3	18.6	
Indoor ECM fan motor	W(max)	100		
	F.L.A	0.43	0.86	
Fresh air intake ECM fan motor	W(max)	40		
	F.L.A	0.18	0.36	
Stale air exhaust ECM fan motor	W(max)	0.18		
	F.L.A	41	82	
outdoor ECM fan motor	W(max)	210	120	
	F.L.A	0.91	5	

Circuit breakers	V	220	115
MCA - heat pump only		10	20
Recommended breaker size	A	15	30
MOCP		20	40

Compressor						
Type BLDC inverter						
Refrigerant /pound	Туре	R32 /1.55				
Oil	OZ	21.87				

#### **Physical Data**

,s.ca. Da	•••					
	\A/:+b	Net	49 5/16" W x 26" H x 14 13/16" D			
Dimensions	With ERV	Gross	53 7/8" W x 29 1/16" H x 20" D			
Difficusions	W/O EDV	Net	49 5/16" W x 26" H x 7 13/16" D			
	W/O ERV	Gross	53" W x 29 1/16" H x 12 1/8" D			
	With ERV	Net	230 lbs			
Weight		Gross	240 lbs			
weight	W/O EDV	Net	170 lbs			
	W/O ERV	Gross	180 lbs			
Cabinet	Finish	RAL 9003 signal white				
Cabinet	Material	Steel				



## Dimensional drawings

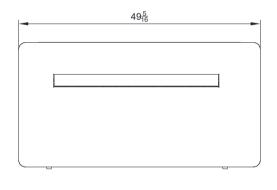
#### **Sound Power Noise Level data**

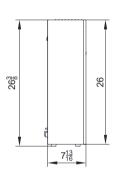
Unit Model: MAIRHP-35										
Rated Cooling	A weighted Sound	Octave-bands Frequency Hz								
Capacity		63	125	250	500	1K	2K	4K	8K	16K
Btu/Hr	dB(A)			Soul	nd Powe	r in 1/3 (	Octave-b	ands		
11500	60.7	23.2	38.8	48.2	50.5	50.0	46.1	41.8	32.4	23.8
9500	56.9	19.5	34.7	46.2	47.6	46.7	41.7	36.7	27.5	29.2

#### **Sound Pressure Noise Level data**

Unit Model: MAIRHP-35										
Rated Cooling	A weighted Sound		Octave-bands Frequency Hz							
Capacity	Pressure Level	63	125	250	500	1K	2K	4K	8K	16K
Btu/Hr	dB(A)		Sound	Power in	1/3 Oct	ave-ban	ds unde	r ESP:0.	3 in.wg.	
11500	51.2	13.7	29.3	38.7	41.0	40.5	36.6	32.3	22.9	14.3
9500	47.4	10.0	25.2	36.7	38.1	37.2	32.2	27.2	18.0	19.7

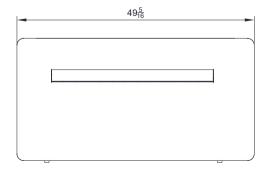
#### **MAIRHP-35 W/O ERV Dimensions**

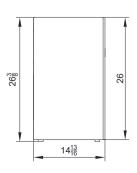


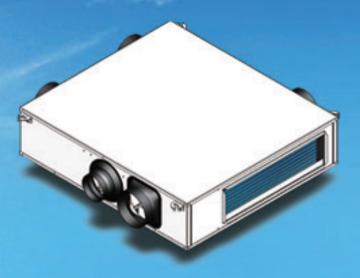




#### **MAIRHP-35 With ERV Dimensions**







#### Supply air

The rectangular 8" H x 27.6" W supply air connection is ideal for a supply grille or ducting, with up to 0.5" external static pressure (combined between return and supply).

#### Stale air exhaust

The six-inch round stale air exhaust connection can be used as part of a plenum return without any ducting or can be ducted to a bathroom or multiple locations with up to 0.3" WC external static pressure. If configuring Ceiling Ducted with a bottom return, the stale air can also be pulled from the bottom return.

#### Outside air exhaust

The single 8" round outside air exhaust connection is for the condenser portion and the stale air exhaust. This can be ducted with up 0.5" WC external static pressure (combined between intake and exhaust)

#### Return air - bottom option

The bottom  $8" \times 29.2"$  return is designed to be used with a ceiling-mounted return grille or an access panel with an integrated return grille

## **CEILING DUCTED**

#### **Ceiling Ducted Overview**

Ceiling Ducted can be discreetly installed above a ceiling and is ideal for single or multi-room applications. The return can be from the sides or the bottom for maximum flexibility. With up to 0.5" WC external static pressure, this unit can be used where ducting is required. Use with any interior grille and louver to provide additional design flexibility. A bathroom exhaust can connect to the dedicated stale air exhaust. Ceiling Ducted units are available with or without the integrated ERV.

- MAIRHP-35-CC
- MAIRHP-35-CC-ERV

#### Return air - side options

The left and right side 8" round connection can be ducted to one or more rooms with up to 0.5" external static pressure (combined between return and supply). It can also be left open as a side plenum return. Duct both, leave both open or duct one, and leave one open to a plenum

#### Outside air intake

The single 8" round outside air intake connection provides air for the condenser portion and fresh air for ventilation. This can be ducted with up 0.5" WC external static pressure (combined between intake and exhaust).

#### **Key Features**

Compact unit
Easy to install
High ESP for internal and external ducting
Electronically controlled air louver
Bottom or sides return
Bathroom exhaust connection
Auto-restart
Washable filters
220V /1Ph /60Hz or 115V /1Ph /60Hz
R32 refrigerant

#### Operation

Cool, heat, dehumidify, and auto Selectable fan speeds, low, med, high and auto Fresh air ERV - field configurable amount of fresh air

## Integrated Dual Duct Heat Pump



#### Mounting

Ceiling concealed

Multiple adapter options

#### Air flow

Dual 8" external vents

Available 0.3" WC for internal ducting and louvers

#### Included controls

Remote handset
Touch electronic wall-mounted control panel

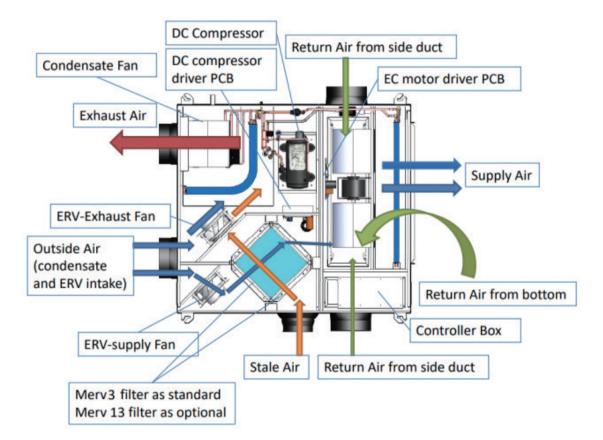


#### **Options**

- 900 or 1,800W electric heat
- 2 With or without ERV
- 3 Smart touch electronic wall-mounted control panel with remote diagnose connected via internet
- 4 LLA Grille Kit

#### Optional controller

Smart touch electronic wall-mounted control panel with remote diagnose connected with via internet





The total capacity and efficiency of the heat pump and the ERV cannot be used to heat/cool the room and is only shown to demonstrate the capacity and efficiency when compared to a system without an ERV. A percentage of the heat pump capacity is required to heat/cool the outdoor air, which is not recovered by the ERV.

#### **ERV** performance

General							
Flow type	counter flow ent	counter flow enthalpy exchanger					
Material	Mold and bacteri	Mold and bacteria resistant, washable polymer membrane.					
		45CFM	75CFM	100CFM			
Efficiency of core	in winter			•			
Sensible	%	86.7 85.2					
Latent		72.5	65.1	60.3			
Efficiency of core	in summer						
Sensible	0/	71.1 69.4		68.1			
Latent		56.2 54.5		51.2			
Filter							
Indoor air	N.4		Merv3/optional Merv13				
Outside air	Merv	Merv13					
Leakage							
Internal	W 6	2.6% at 0.40"	2.4% at 0.40"	2.2% at 0.40"			
External	W.C.	2.8% at 1.0"	2.7% at 1.0"	2.5% at 1.0"			

#### Cooling

Indoor: 80°F, W.B. 67°F; Outdoor: 95°F, W.B. 75°F

		45CFM	75CFM	100CFM		
Heat pump						
Range	Btu/h		6500~12000			
Nominal	Blu/II		9600			
Input power	W		864			
Cffi ai an au	EER		11.1			
Efficiency	SEER	14.8				
ERV						
Sensible recovery	Btu/hr	755	1110	1420		
Latent recovery	Blu/III	488	712	912		
Input power	W	36	56	74		
Efficiency	EER	34.5	32.53	31.53		
Combined Heat Pump	p + ERV					
Range	Dt /l-	7743~13243	8322~13822	8832~14332		
Nominal	Btu/h	10843	11422	11932		
Input power	W	900 920 938				
Efficiency	EER	12.05	12.41	12.72		

#### Heating 47°

Indoor: 70°F, W.B. 60°F; Outdoor: 47°F, W.B. 43°F

111d001.701, W.B. 00	, Outdoor.		1	I
		50CFM	75CFM	100CFM
Heat pump				
Range	Btu/hr		6760~12500	
Nominal	Blu/III		9400	
Input power	W		810	
Efficiency	COP		3.41	
ERV				
Recovery	Btu/hr	1650	2500	3100
Input power	W	36	56	74
Efficiency	COP	13.48	13.19	12.31
Combined Heat Pump + E	RV			
Range	Dav. /h	8410~14150	9260~15000	9860~15600
Nominal	- Btu/h	11050	11900	12500
Input power	W	846	866	884
Efficiency	COP	3.82	4.02	4.14



#### Heating 13°F

Indoor: 70°F, W.B. 60°F; Outdoor: 13°F, W.B. 9°F

		50CFM	75CFM	100CFM
Heat pump				
Range	Dt /h		4735~7600	
Nominal	Btu/hr		5800	
Input power	W		750	
Efficiency	COP		2.26	
ERV				
Recovery	Btu/hr	3200	5100	6500
Input power	W	36	56	74
Efficiency	СОР	26.35	26.55	25.98
Combined Heat Pum	ıp + ERV			
Range	D4/b	7935~10800	9835~12700	11235~14100
Nominal	Btu/h	9000	10900	12300
Input power	W	786	806	824
Efficiency	СОР	3.35	3.96	4.37

#### Fresh air Volume

Indoor	Туре	ECM centrifugal
	CFM	300- 600
	Available ESP	0.3"WC
	Supply connection	8" H x 27.6" W
	Return connection	Two 8" round on sides or bottom 8" x 29.2"
	Speeds	High, Medium, Low and Auto
	Filter	Merv3
Fresh air intake	Туре	ECM centrifugal
	CFM	40 - 100
	Speeds	High, Medium, Low and Auto
	Filter	MERV 13
Stale air intake	Туре	ECM centrifugal
	CFM	40 - 100
	Connection	6.2" round
	Speeds	High, Medium, Low and Auto
	Filter	MERV 3
outdoor	Туре	ECM centrifugal
	CFM	400 - 700
	Available ESP	0.5"WC
	Supply connection	8" round
	Return connection	8" round
	Speeds	Auto



#### **Electrical**

Liectricai				
General		220V	115V	
Volt range		200~250	104~126V	
Hz/ phase		60/s	ingle	
Power supply		LCDI po	wer cord	
Power factor		0.	96	
Cooling (nominal)		5.0	10	
Cooling (max)	A	5.5	11	
Heating-heat pump only (nom.)	<b>A</b>	4.5	9	
Heating - heat pump only (max)		5.2	10.4	
Input power (standby)	W	10	).8	
Input power (off mode)	W	1.7		
	RLA	5.5	11	
compressor	LRA	9.3	18.6	
Indeed COM for motors	W(max)	10	00	
Indoor ECM fan motor	F.L.A	0.43	0.86	
5 1 : : : 1 50146	W(max)	4	0	
Fresh air intake ECM fan motor	F.L.A	0.18	0.36	
C. I I FCM.	W(max)	4	<u> </u>	
Stale air exhaust ECM fan motor	F.L.A	0.18	0.36	
	W(max)	210		
outdoor ECM fan motor	F.L.A	0.91	1.82	

Circuit breakers	V	220	115
MCA - heat pump only		10	20
Recommended breaker size	A	15	30
MOCP		20	40

Compressor						
Туре		BLDC inverter				
Refrigerant /pound	Туре	R32 /1.55				
Oil	OZ	21.8				

#### **Sound Power Noise Level data**

Unit Model: MAIRHP-35										
Rated Cooling	A weighted Sound	Octave-bands Frequency Hz								
Capacity	Power Level	63	125	250	500	1K	2K	4K	8K	16K
Btu/Hr	dB(A)			Sou	ınd Powe	er in 1/3	Octave-b	ands		
12000	67.4	29.4	38.4	53.9	56.9	56.8	56.2	49.5	44.5	28.5
9600	57.4	41.7	32.2	44.5	48.3	48.3	44.7	36.3	32.3	21.4

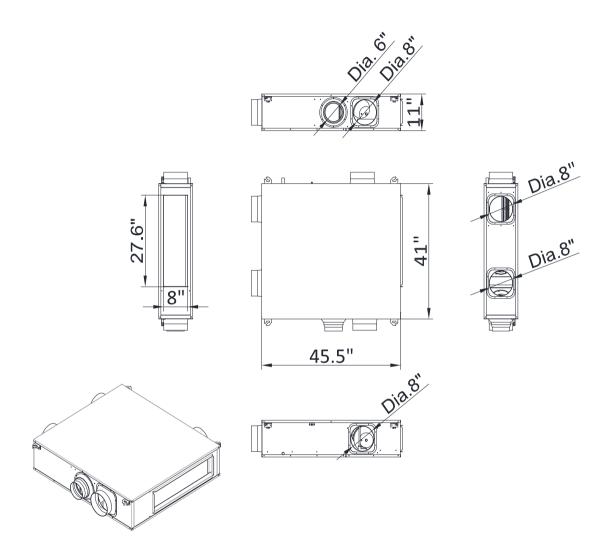
#### **Sound Pressure Noise Level data**

	Unit Model: MAIRHP-35									
Rated Cooling A weighted Sound			Octave-bands Frequency Hz							
Capacity	Pressure Level	63	125	250	500	1K	2K	4K	8K	16K
Btu/Hr	dB(A)		Sound	d Power	in 1/3 Oc	tave-ban	ds unde	r ESP:0.3	in.wg.	
12000	58.4	20.4	29.4	44.9	47.9	47.8	47.2	40.5	35.5	19.5
9600	48.4	32.7	23.2	35.5	39.3	39.3	35.7	27.3	23.3	12.4



## Dimensional drawings

MAIRHP-35-CC & MAIRHP-35-CC-ERV



## **CEILING SUSPENDED**



#### Supply air

The supply air is through an electronically controlled louver that can be set at any angle or continuously swung.

#### Stale air exhaust

The six-inch round stale air exhaust connection can be used as part of a plenum return without any ducting or can be ducted to a bathroom or multiple locations with up to 0.3" WC external static pressure. If configuring Ceiling Suspended with a bottom return, the stale air can also be pulled from the bottom return

#### Outside air exhaust

The single 8" round outside air exhaust connection is for the condenser portion and the stale air exhaust. This can be ducted with up 0.5" WC external static pressure (combined between intake and exhaust)

#### Return air - bottom option

The bottom  $8" \times 35-7/8"$  return is designed to be used with a ceiling-mounted return grille

#### Outside air intake

The single 8" round outside air intake connection provides air for the condenser portion and fresh air for the inside. This can be ducted with up 0.5" WC external static pressure (combined between intake and exhaust).

#### **Ceiling Suspended Overview**

Ceiling Suspended unit is designed to be mounted below the ceiling. These units are ideal for retrofit applications where it is desirable to have the unit "out of reach" and when there is not enough space to locate above the ceiling. Ceiling Suspended units are suitable for dormitories, apartments, hospitality, or anywhere a ceiling-mounted unit is desired. Ceiling Suspended units are available with or without an integrated ERV and can be vented directly outside or through ductwork.

- MAIRHP-35-CS
- MAIRHP-35-CS-ERV

#### **Key Features**

Touch electronic wall-mounted control panel Remote handset

#### **Optional controllers**

Compact unit
Easy to install
High ESP for external ducting
Electronically controlled air louver
Bottom or sides return
Bathroom exhaust connection
Auto-restart
Washable filters
220V /1Ph /60Hz or 115V /1Ph /60Hz
R32 refrigerant

#### Operation

Cool, heat, dehumidify, and auto Selectable fan speeds, low, med, high and auto Fresh air ERV - field configurable amount of fresh air



#### Mounting

Ceiling exposed Multiple adapter options

#### Air flow

Dual 8" external vents

#### Included controls

Remote handset
Touch electronic wall-mounted control panel

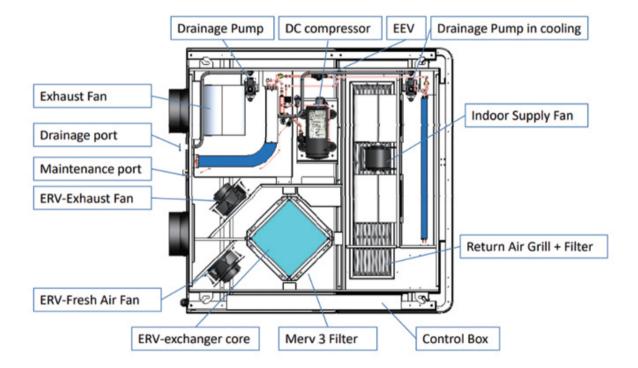


#### **Options**

- 900 or 1,800W electric heat
- With or without ERV
- 3 Smart touch electronic wall-mounted control panel with remote diagnose via internet
- 4 LLA Grille Kit

#### Optional controller

Smart touch electronic wall-mounted control panel with remote diagnose connected with via internet





The total capacity and efficiency of the heat pump and the ERV cannot be used to heat/cool the room and is only shown to demonstrate the capacity and efficiency when compared to a system without an ERV. A percentage of the heat pump capacity is required to heat/cool the outdoor air, which is not recovered by the ERV.

**ERV** performance

General							
Flow type	counter flow enthalpy exchanger						
Material	Mold and bacteria resistant, washable polymer membrane.						
		45CFM	75CFM	100CFM			
Efficiency of core in w	inter						
Sensible	0/	86.7	85.2	83.1			
Latent	- %	72.5	65.1	60.3			
Efficiency of core in su	ummer						
Sensible	%	71.1	69.4	68.1			
Latent	70	56.2	54.5	51.2			
Filter							
Indoor air	N.4		Merv3/optional Merv13				
Outside air	Merv	Merv13					
Leakage							
Internal	W.C.	2.6% at 0.40"	2.4% at 0.40"	2.2% at 0.40"			
External	vv.C.	2.8% at 1.0"	2.7% at 1.0"	2.5% at 1.0"			

#### Cooling

Indoor: 80°F, W.B. 67°F; Outdoor: 95°F, W.B. 75°F

1110001. 80 F, W.B. 67	r, Outdoor. 95 r,	VV.D. /3 F				
		45CFM	75CFM	100CFM		
Heat pump						
Range	Btu/h		6500~12000			
Nominal	Біш/п		9600			
Input power	W		864			
Efficiency	EER		11.1			
Efficiency	SEER	14.8				
ERV						
Sensible recovery	Btu/hr	755	1110	1420		
Latent recovery	Blu/III	488	712	912		
Input power	W	36	56	74		
Efficiency	EER	34.5	32.53	31.53		
Combined Heat Pump	+ ERV					
Range	Btu/h	7743~13243	8322~13822	8832~14332		
Nominal	Biu/n	10843	11422	11932		
Input power	W	900	920	938		
Efficiency	EER	12.05	12.41	12.72		

#### Heating 47°

Indoor: 70°F. W.B. 60°F: Outdoor: 47°F. W.B. 43°F

maoor. 70 F, W.B. 00 F, Outdoor. 47 F, W.B. 43 F								
		50CFM	75CFM	100CFM				
Heat pump								
Range	Btu/hr		6760~12500					
Nominal	Blu/III		9400					
Input power	W		810					
Efficiency	COP		3.41					
ERV								
Recovery	Btu/hr	1650	2500	3100				
Input power	W	36	56	74				
Efficiency	COP	13.48	13.19	12.31				
Combined Heat Pump +	ERV							
Range	Btu/h	8410~14150	9260~15000	9860~15600				
Nominal	Blu/II	11050	11900	12500				
Input power	W	846	866	884				
Efficiency	COP	3.82	4.02	4.14				



#### Heating 13°F

Indoor: 70°F, W.B. 60°F; Outdoor: 13°F, W.B. 9°F

		50CFM	75CFM	100CFM				
Heat pump								
Range	Btu/hr		4735~7600					
Nominal	Dlu/III		5800					
Input power	W		750					
Efficiency	COP		2.26					
ERV								
Recovery	Btu/hr	3200	3200 5100					
Input power	W	36	56	74				
Efficiency	СОР	26.35 26.55 25.98						
Combined Heat Pump +	ERV							
Range	Btu/h	7935~10800	9835~12700	11235~14100				
Nominal	םנט/וו	9000	10900	12300				
Input power	W	786	806	824				
Efficiency	СОР	3.35	3.96	4.37				

#### Fresh air Volume

Indoor	Туре	ECM centrifugal
	CFM	300-600
	Available ESP	0.3"WC
	Supply connection	8" H x 27.6" W
	Return connection	Two 8" round on sides or bottom 8" x 29.2"
	Speeds	High, Medium, Low and Auto
	Filter	Merv 3
Fresh air intake	Туре	ECM centrifugal
	CFM	40 - 100
	Speeds	High, Medium, Low and Auto
	Filter	MERV 13
Stale air intake	Туре	ECM centrifugal
	CFM	40 - 100
	Connection	6.2" round
	Speeds	High, Medium, Low and Auto
	Filter	MERV 3
outdoor	Туре	ECM centrifugal
	CFM	400 - 700
	Available ESP	0.5"WC
	Supply connection	8" round
	Return connection	8" round
	Speeds	Auto



#### **Electrical**

General		220V	115V	
Volt range		200~250	104~126	
Hz/ phase		60/sir	ngle	
Power supply		LCDI pow	er cord	
Power factor		0.9	6	
Cooling (nominal)		5.0	10.0	
Cooling (max)	A	5.5	11.0	
Heating-heat pump only (nom.)	^	4.5	9.0	
Heating - heat pump only (max)		5.2	10.4	
Input power (standby)	W	10.	8	
Input power (off mode)	W	1.7	7	
	RLA	5.5	11.0	
compressor	LRA	9.3	18.6	
Indoor ECM fan motor	W(max)	10	0	
Indoor ECM fan motor	F.L.A	0.43	0.86	
Fords of the Lands of Charles and the	W(max)	40		
Fresh air intake ECM fan motor	F.L.A	0.18	0.36	
0.1	W(max)	40	)	
Stale air exhaust ECM fan motor	F.L.A	0.18	0.36	
outdoor ECM fan motor	W(max)	21	0	
outdoor ECM fan motor	F.L.A	0.91	1.82	
Circuit breakers	V	220	115	
MCA - heat pump only		10	20	
Recommended breaker size	Α	15	30	

MCA - heat pump only		10	20
Recommended breaker size	А	15	30
МОСР		20	40

Compressor							
Туре	BLDC inverter						
Refrigerant /pound	Туре	R32 /1.55					
Oil	OZ	21.8					

#### **Sound Power Noise Level data**

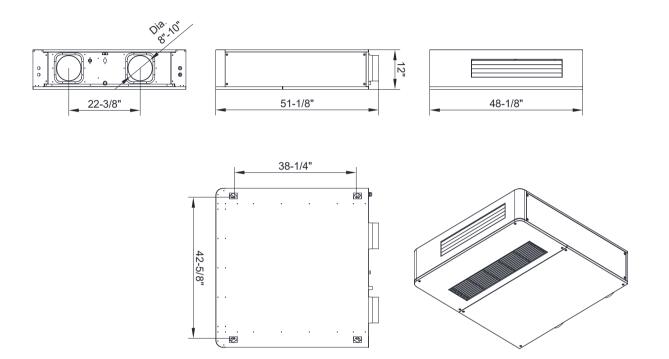
	Unit Model: MAIRHP-35									
Rated Cooling	A weighted Sound	Sound Octave-bands Frequency Hz				Hz				
Capacity	acity Power Level	63	125	250	500	1K	2K	4K	8K	16K
Btu/Hr	dB(A)	Sound Power in 1/3 Octave-bands								
12000	67.4	29.4	38.4	53.9	56.9	56.8	56.2	49.5	44.5	28.5
9600	57.4	41.7	32.2	44.5	48.3	48.3	44.7	36.3	32.3	21.4

#### **Sound Pressure Noise Level data**

		-								
Unit Model: MAIRHP-35										
Rated Cooling	A weighted Sound	Octave-bands Frequency Hz								
Capacity Pressure Level	63	125	250	500	1K	2K	4K	8K	16K	
Btu/Hr	dB(A)	Sound Power in 1/3 Octave-bands under ESP:0.3 in.wg.								
12000	58.4	20.4	29.4	44.9	47.9	47.8	47.2	40.5	35.5	19.5
9600	48.4	32.7	23.2	35.5	39.3	39.3	35.7	27.3	23.3	12.4

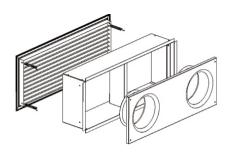


#### MAIRHP-35-CS & MAIRHP-35-CS-ERV





#### LOUVERS FLANGED LOUVER ASSEMBLY



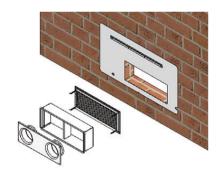
#### **LLA-HORIZONTAL**

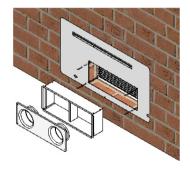
#### ·HORIZONTAL CONFIGURATION

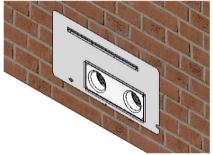
Designed for use with the Inspiron Air series heat pumps, the standard flanged linear louver assembly offers clean architectural lines and excellent airflow performance. Our louvers are designed to prevent water penetration. The two-part optional assembly consisting of a plenum box and separate louver enables flexible and easy installation. Concealed screws on the side of the louver fasten to the plenum box, so no screws mar the front. Louver assembly can be finished in any custom color.

#### **INSTALLING LLA GRILLE**

- There are 3 parts to the LLA grill kit
- Put the intake grill through rectangular hole
- Connect 4-springs on the grill to middle part
- Using 4-srew connecting 2-round flanges with middle part

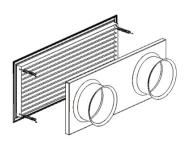


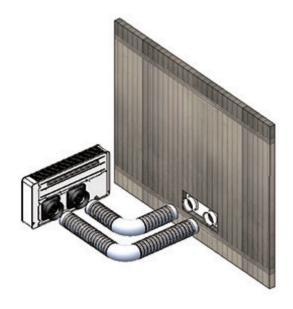




#### **INSTALL UNIT WITH FLEXIBLE HOLES**

- -There are two parts for dual ducts
- -Put the intake grill through rectangular hole
- -Connecting 4-springs on the grill with 2-round flange
- -Connection dual ducts with flexible ducting less than 3m (9.8 feet)







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