# Modular Hi-Rise Replacment Series FAN COIL TECHNICAL CATALOG



A NIBE GROUP MEMBER



# Modular Hi-Rise Replacement Series FAN COIL TECHNICAL CATALOG

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# Modular Hi-Rise Replacement Series FAN COIL TECHNICAL CATALOG

### **Portfolio**

The Modular Hi-Rise Replacement Series allows for the retrofit of aging hi-rise fan coils without waiting for a complete whole room renovation budget. These products are designed to retrofit old IEC units and most competitive units by sliding into existing cabinets that have had their internal components removed. The fast, minimally disruptive installation eliminates downtime, offers energy savings, as well as features that can enhance indoor environmental quality.



# MRY – ReStora Mod® Hi-Rise 300 CFM to 1200 CFM

The **ReStora**Moo® fan coil unit comes in several sizes that are designed to fit into IEC units manufactured after 1980 and many competitive units where more space is available in the existing cabinet. The product is available with an optional EC motor to save energy and provide quiet operation.

### **Features and Benefits**

### Versatility in Design and Installation

Modular Hi-Rise replacement fan coil units are designed specifically for replacement or retrofit applications. Since these units are designed to slide into existing, older cabinets their unit arrangements will be somewhat dependent upon the configurations of those existing units. Our Modular Hi-Rise Replacement Units still

offer a wide variety of options that can be delivered as a factory-assembled and integrated package. These units provide minimally disruptive installation, while also providing low visual impact in the room. A wide variety of finish options are available to help the product blend with any décor.

#### **Design Features**

- 18-gauge galvanized-steel cabinet
- 2 Double-deflection supply air grille
  - Removable acoustical return air blockoff/access panel (not shown)
- 3 Powder-coated return air access panel
- Removable motor and blower assembly with quick-connect plug
- S Removable coil draw-through coil\*
- 6 Insulated drain pan with p-trap (not shown)
  - \* Available applications are 2-pipe, 4-pipe, 2-pipe auxiliary electric heat, and 2-pipe total electric heat



MRY - ReStoramod®



**FAN COIL TECHNICAL CATALOG** 

### **Features and Benefits**

#### **Application Fit**

- Partially-concealed, slide in replacement cabinets with up to 9 standard airflow configurations (many more optional configurations) provide solutions for multiple retrofit applications
- A variety of aesthetically pleasing grille and finish options will blend with most decor
- Units are designed for quiet operation

#### **Design Flexibility**

- Product integrated into IEC's computer rating program for quick performance calculations to aid in unit selection
- Wide variety of coil configurations to match the heating and cooling loads of the space
- Standard EC motor/blower assemblies are available for better energy efficiency are available to meet the needs of applications where ductwork is required
- Wide variety of valve packages factory/fieldinstalled to meet desired control specifications
- Higher efficiency MERV rated filter media available to address IAQ requirements
- Extensive offering of control options available, including 24V and line voltage control schemes
- Variety of insulation material available to address IAQ or sound concerns
- Stainless steel, insulated drain pan with preformed rubber p-trap

#### Ease of Installation

- Units slide into a variety of existing cabinets configurations where internal components have been removed for fast installation
- Quick Finish Wall Panel covers rough opening to eliminate the need for finish work such as carpentry, drywall, painting, etc.
- Proper project coordination allows for finished installation in 4 hours or less with minimal clean-up.

#### **Ease of Service**

- Filters are easily accessible by removing return air panel
- Coil assemblies are removable for easier cleaning and maintenance
- All serviceable components and assemblies are designed to be removed in 15 minutes or less

#### **Quality and Safety**

- Rigorous multi-point inspection at the factory for trouble-free start-up
- ETL listed for safety compliance to UL 1995, US & Canada
- AHRI certified for performance to AHRI 440
- All hydronic coils are pressure tested to 300 psig



### **FAN COIL TECHNICAL CATALOG**

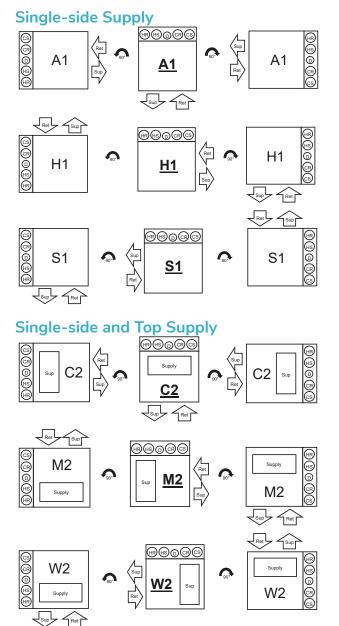
### **Product Application**

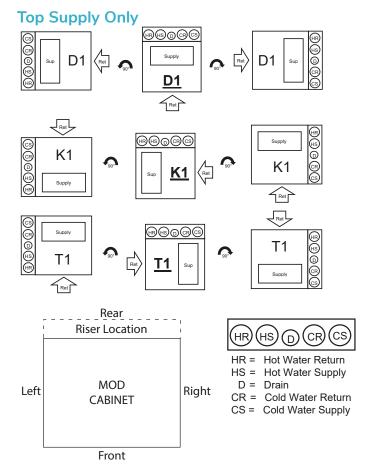
### **Versatile Standard Unit Arrangement Options**

The Modular Hi-Rise Replacement Series is available in a number of different unit configurations to fit most hi-rise retrofit applications. When selecting the best unit design configuration for a specific application, the footprint of the existing cabinet, as well as the stub-out location, will need to be considered to provide the best solution. These units are designed for a minimally disruptive retrofit to keep room downtime to a minimum and save on installation costs.

Modular Hi-Rise Replacement fan coils are designed to be unobtrusive in the room and blend with a wide variety of decors. Units can be specified with up to two discharge openings, as well as a top discharge for ducted applications.

Below are examples of the standard unit arrangement possibilities for the Modular Hi-Rise Replacement fan coil series.





- **NOTES:** 1. Risers pictured are shown for reference purposes only and adhere to the IEC standard convention.
  - 2. MRY equipment is designed to use existing risers, so risers are typically not sold with these models.
  - 3. Riser supply-return configurations & temperature should be labeled prior to demolition, and must be verified prior to installation, as they may differ from the IEC standard convention.

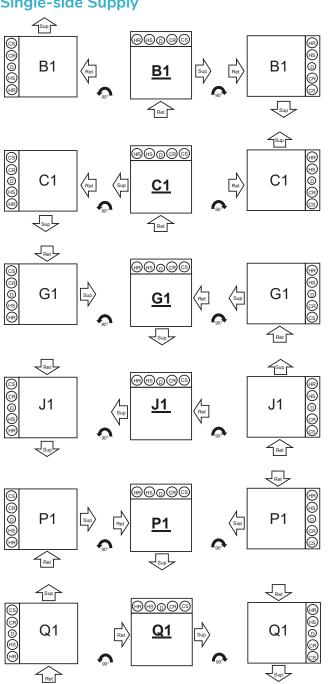


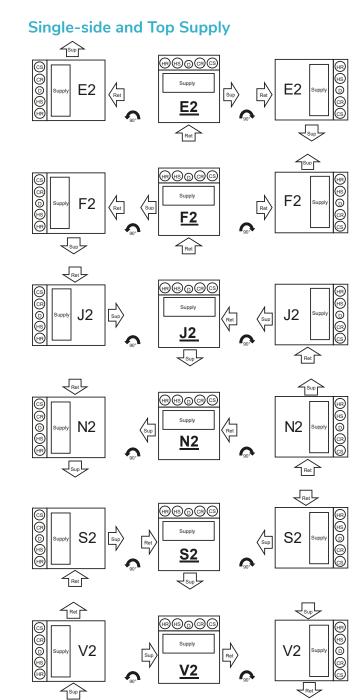
**FAN COIL TECHNICAL CATALOG** 

## **Product Application**

### **Special Arrangement Options:**

### **Single-side Supply**

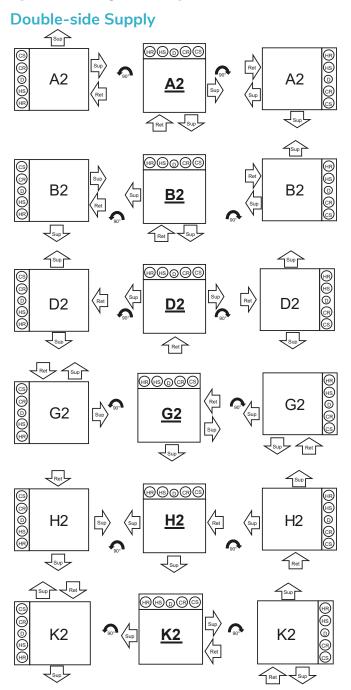


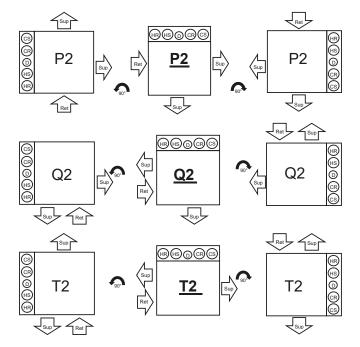


### **FAN COIL TECHNICAL CATALOG**

## **Product Application**

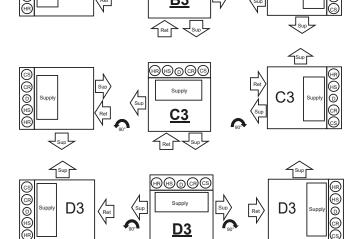
### **Special Arrangement Options:**





### **Double-side and Top Supply**

**B**3



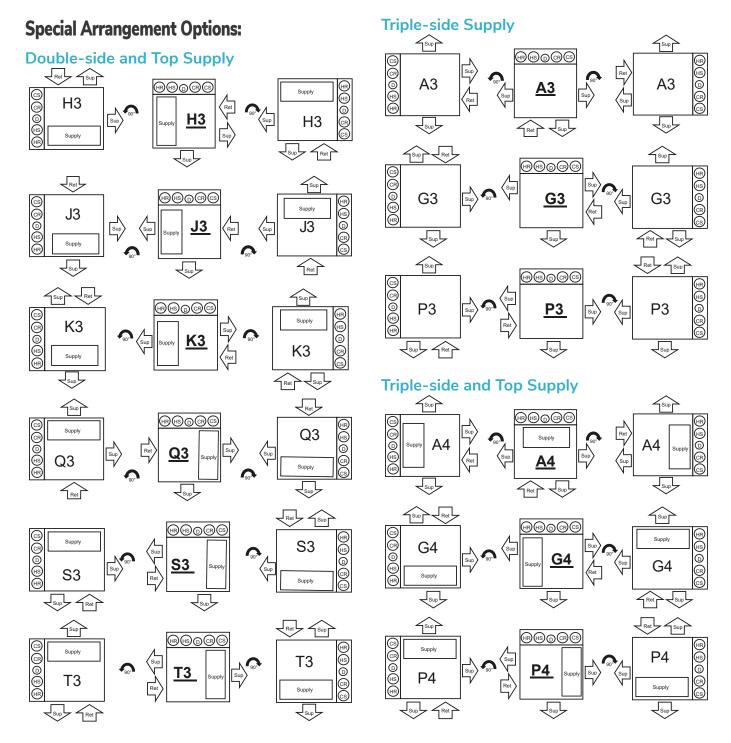
Arrangement options continued on next page



B3

**FAN COIL TECHNICAL CATALOG** 

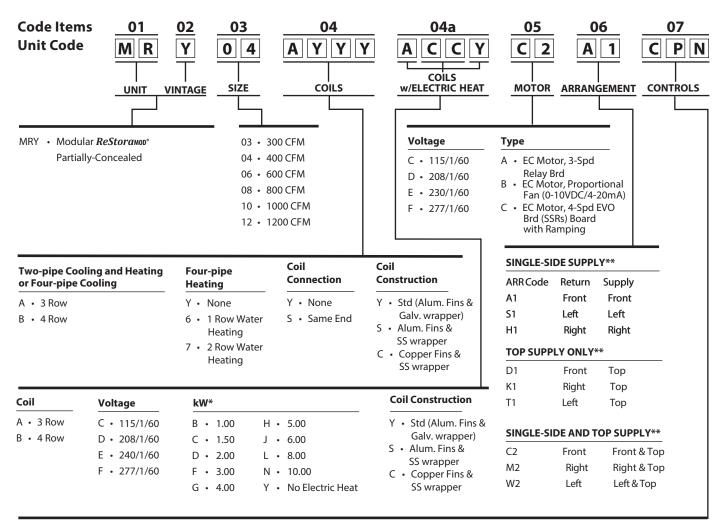
## **Product Application**



- NOTES: 1. For special supply/return arrangement options, please contact IEC for pricing and availability.
  - 2. Any special supply/return arrangement may affect sound and performance.
  - 3. Risers pictured are shown for reference purposes only and adhere to the IEC standard convention.
  - 4. MRY equipment is designed to use existing risers, so risers are typically not sold with these models.
  - Riser supply-return configurations and temperatures should be labeled prior to demolition, and must be verified prior to installation, as they may differ from the IEC standard convention.
  - 6. Special arrangements may require special supply grilles, baffling and lab testing to validate actual performance.



## **Unit Model Key – Standard Footprint Cabinet – MRY**



Volt	age
------	-----

### **System Operation**

#### B • 24V

C • 120 V

D • 208 V

E • 240 V F • 277 V

#### **Manual Fan Operation**

A1 • Standard Unit Mount (Switch Only)

#### **Function Control**

G · 2-Pipe Heat Only

H • 2-Pipe Cool Only

K • 2-Pipe Heat and Cool

M • 2-Pipe Heat and Cool w/ Aux. Elec. Heat

• 2-Pipe Cool w/ Total Elec. Heat

R • 4-Pipe Heat and Cool

#### Thermostat Type & Changeover

- P Basic 24V Digital Programmable, ACO
- N · Basic 24V Digital Non-Programmable,
- F Premium 24V Digital 7-Day Programmable, with Proportional Fan/Valves Option, ACO
- G Premium 24V Digital BACnet with Proportional Fan/Valves Option, ACO



Note that kWs depend on voltage and unit size.

For additional unit arrangements, please consult the factory for pricing and availability.

**FAN COIL TECHNICAL CATALOG** 

### **Ratings and Listings**

#### **AHRI Certification**

IEC's Modular Hi-Rise Replacement Series units are certified in compliance with Air-Conditioning,



Heating, and Refrigeration Institute (AHRI) industry standard AHRI-440 for room fan coil units. Approved standard ratings are tabulated below.

### **C-ETL-US Listing**

IEC's Modular Hi-Rise Replacement Series units are listed by ETL. The C-ETL-US listing signifies that IEC's fan coil units have been examined by ETL and are in compliance with both the U.S. and Canadian applicable standards.



Intertek 3061627

**HEATING AND COOLING EQUIPMENT** 

### Standard Ratings

Stariu	Standard Ratings										
	Unit		Cooling Capacity		Water		Power				
Rows	Coil Size	Nom. CFM	Total MBH	Sen- sible MBH	Flow Rate (GPM)	WPD (ft. wg.)	Input Watts PSC				
	03	300	11.5	7.0	2.7	4.4	85				
	04	400	13.6	9.0	2.8	5.0	115				
3-Row	06	600	21.9	14.0	4.1	4.1	135				
3-K0W	80	800	27.5	17.8	4.4	4.7	250				
	10	1000	37.7	24.5	6.3	11.9	325				
	12	1200	43.1	28.4	6.7	13.4	440				
	03	300	12.2	7.3	3.2	8.6	85				
	04	400	15.6	9.6	3.5	10.0	115				
4.5	06	600	26.0	15.3	5.1	8.3	135				
4-Row	08	800	31.4	19.5	5.6	9.9	250				
	10	1000	42.2	25.6	7.5	9.4	325				
	12	1200	46.5	30.5	8.0	10.8	440				

- NOTES: 1. Ratings are based on 80°F DB and 67°F WB EAT, 45°F EWT, 10°F water temperature rise, high fan speed, motor voltage 115/1/60, and airflow under dry coil conditions.
  - 2. For all application ratings, use IEC's computer selection program, the quickselection ratings provided in this catalog, or contact your local IEC representative.
  - For additional information, please consult AHRI's website at www.ahrinet.org. Test performance at AHRI440 conditions WITHOUT filter, supply grilled or Quick Finish Wall Panel.
  - 5. Ratings are based on the Standard Coil Circuit and FPI option.

### **Hydronic Heating – Base Capacity**

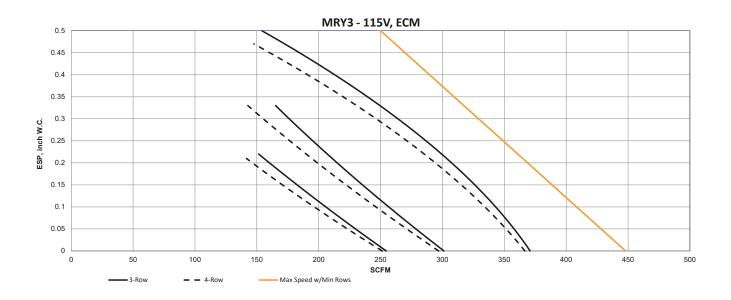
		Unit Coil	GPM						
Rows	EWT	Size	0.5	1.0	2.0	3.0	4.0	6.0	8.0
		03	11.3	14.0	15.8	16.5	-	-	-
		04	11.5	14.4	16.3	17.1	-	_	_
	4.CO°E	06	1	19.8	23.3	24.7	25.4	_	_
1-Row	160°F	08	_	20.1	23.9	25.4	26.2	-	_
		10	_	25.2	31.1	33.6	34.9	_	_
		12	-	25.4	31.6	34.1	35.5	-	_
		03	15.9	21.0	24.2	_	_	_	_
		04	16.2	21.8	25.6	27.0	_	-	_
2 D	1 C O ° E	06	_	27.2	35.5	37.4	39.0	_	_
2-Row	160°F	08	_	28.0	36.1	39.5	41.1	-	_
		10	_	33.2	45.5	50.8	53.8	56.9	_
		12	-	33.7	46.6	52.5	55.8	59.3	61.2
		03	14.3	20.0	23.5	24.8	_	_	_
		04	14.6	20.8	25.0	26.5	_	-	_
2 D	1 40°E	06	_	25.1	32.9	36.0	37.7	_	_
3-Row	140°F	08	-	25.7	34.6	38.3	40.3	-	-
		10	_	_	41.7	47.8	51.1	54.6	_
		12	-	-	42.9	49.7	53.5	57.7	-
		03	_	21.0	25.1	_	-	_	_
		04	-	22.0	27.1	28.9	-	-	-
1 David	1 40°F	06	_	27.6	36.9	40.4	42.1	_	_
4-Row	140°F	08	-	28.4	39.3	43.7	46.0	-	-
		10	_	-	_	53.1	57.1	61.2	63.3
		12	-	-	-	55.7	60.5	65.5	68.1

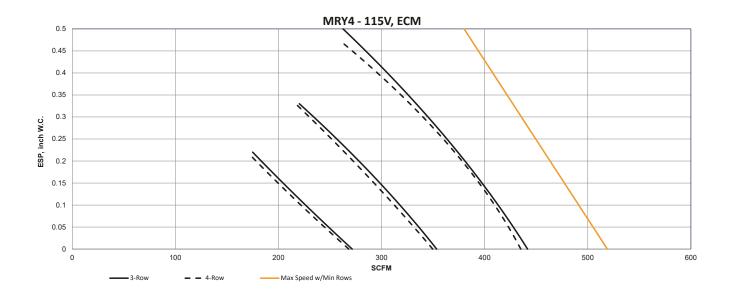
NOTES: 1. All base hot water capacities are given in thousands of Btuh (MBH). Ratings are based on nominal CFM at 70°F EAT and 160°F EWT.

- 3. For information regarding performance at specific conditions, please use the IEC
- rating program or consult your IEC representative for assistance
- Test performance at AHRI440 conditions WITHOUT filter, supply grilled or Quick Finish Wall Panel.
- Ratings are based on the Standard Coil Circuit and FPI option.



## **Fan Performance Curves**

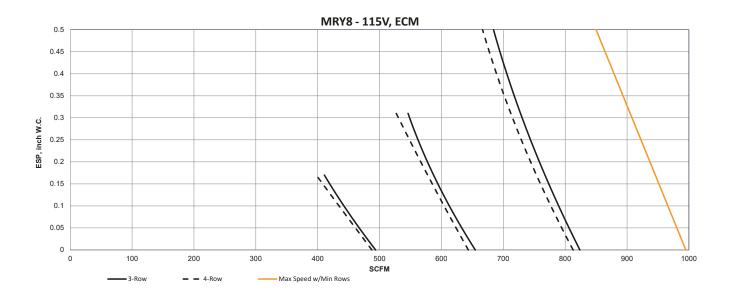


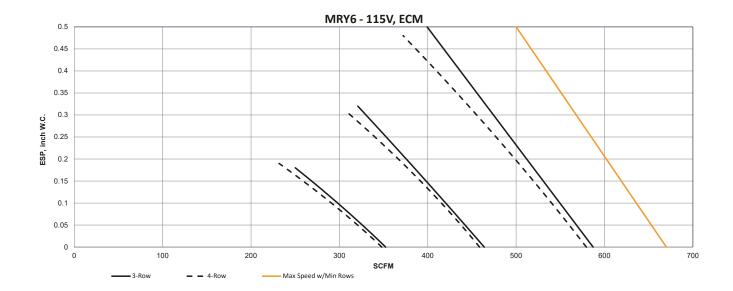




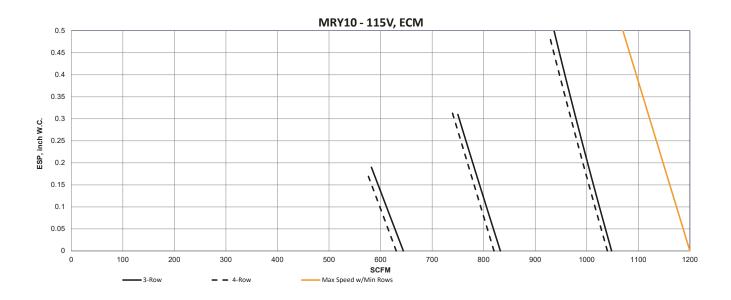
# **Modular Hi-Rise Replacement Series** FAN COIL TECHNICAL CATALOG

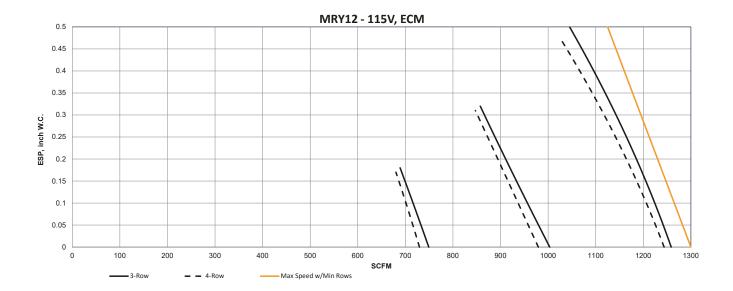
## **Fan Performance Curves**





## **Fan Performance Curves**







**FAN COIL TECHNICAL CATALOG** 

## **Electric Heating**

Electric heaters are available on IEC Modular Hi-Rise Replacement Series fan coil units for the following applications.

#### **Total Electric Heat**

Heating and/or cooling may be available on an individual basis throughout the year. Two-pipe chilled water is used for cooling, and the electric heater is used for heating. Individual room controls can be supplied for either manual or automatic changeover.

#### **Auxiliary Electric Heat**

Auxiliary electric heat is ideal for tempering room-air between seasons and during the cooling season when chilled water is being circulated. Individual room controls are supplied to provide electric heat only when a low temperature is sensed on the hot water riser lines. When a boiler is supplying hot water during the normal heating season, the hydronic heating coils will provide heat.

#### Construction

Heater coils of high-grade resistance wire are supported by ceramic insulators on plated steel brackets. These heating elements are located at the discharge area of the motor/blower. High limit thermal cutouts protect the unit in the event of airflow loss. There are many special applications and control sequences for electric heat. For special applications please consult the factory.

#### **Electric Heater Selection**

		Unit Size					
Voltage	kW	03	04	06	08	10	12
	1.0	•	•	•	•	•	•
120V	1.5	•	•	•	•	•	•
1200	2.0	•	•	•	•	•	•
	3.0	•	•	•	•	•	•
	1.0	•	•	•	•	•	•
	1.5	•	•	•	•	•	•
	2.0	•	•	•	•	•	•
208V	3.0	•	•	•	•	•	•
2067	4.0	_	•	•	•	•	•
	5.0	-	-	•	•	•	•
	6.0	-	-	•	•	•	•
	8.0	-	-	-	•	•	•
	1.0	•	•	•	•	•	•
	1.5	•	•	•	•	•	•
	2.0	•	•	•	•	•	•
	3.0	•	•	•	•	•	•
240V 277V	4.0	-	•	•	•	•	•
	5.0	-	-	•	•	•	•
	6.0	-	-	•	•	•	•
	8.0	-	-	-	•	•	•
	10.0	_	_	_	_	•	•

### **Modular Hi-Rise Replacement Series FAN COIL TECHNICAL CATALOG**

### **Motor Data**

#### **Thermal Overload Protection**

The motor is either thermally protected by an internal solid state thermal switch – current sensing device (208V+), or by electronic sensing circuitry (120V). The motor shuts off completely and waits for the temperature to drop back below the set point, at which time the motor powers back up.

All motors furnished by IEC contain internal thermal overload protection. The overload automatically resets when the temperature returns to a safe limit.

Underwriters Laboratories Inc. approves the motor and thermal overload combination at locked rotor conditions only.

#### **ECM Performance Data**

	T	Unit Size	03	04	06	08	10	12
Voltage	Fan Speed	Nominal HP	1/4	1/4	1/4	1/2	1/2	1/2
	l II ada	Amps	0.64	0.94	1.60	2.00	3.20	5.21
	High	Watts	44	68	120	159	257	461
115V	N4 1:	Amps	0.43	0.58	0.92	1.18	1.78	2.97
60HZ 1-Phase	Medium	Watts	28	40	64	89	136	259
1 i ilase		Amps	0.32	0.37	0.54	0.61	0.96	1.4
	Low	Watts	19	23	35	42	69	129
		Amps	0.41	0.61	1.02	1.32	1.94	3.27
	High	Watts	40	67	121	168	253	455
208-240V	Medium	Amps	0.30	0.38	0.58	0.79	1.11	1.77
60HZ 1-Phase		Watts	25	39	63	96	135	245
1111030		Amps	0.25	0.27	0.34	0.43	0.58	0.83
	Low	Watts	19	23	31	48	65	119
	11: 1	Amps	0.36	0.51	0.78	1.10	1.57	2.61
	High	Watts	39	67	116	170	260	447
277V		Amps	0.29	0.36	0.49	0.64	0.91	1.42
60HZ 1-Phase	Medium	Watts	24	39	63	95	143	243
1 1 11030		Amps	0.25	0.27	0.33	0.29	0.45	0.65
	Low	Watts	18	22	34	39	64	110

NOTES: All data is based on 3R/14 fpi dry coil with deco, filter and supply grill @ 0.00 inc ESP.

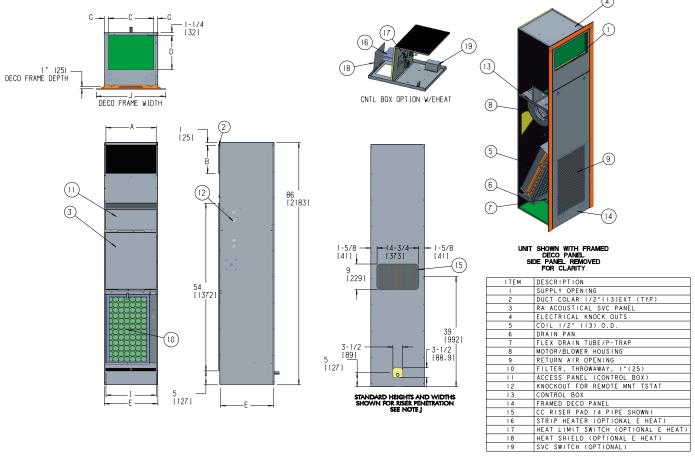
These values are based on Broad Ocean EC motors.



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### **Submittal Data**

### MRY – ReStoramod® 86 inch Partially-Concealed Hi-Rise



	Dimension – Inches (Millimeters)								
Unit Model	Single	Supply	Top Supply			Dimer	nsions		Unit Weight*
	Α	В	С	D	Е	G	I	J	Weight
MRY 03	14 (356)	8 (203)	14 (356)	10 (254)	16 (406)	1 (25.4)	14 (356)	21-1/2 (546)	180 (82)
MRY 04	14 (356)	12 (305)	14 (356)	10 (254)	16 (406)	1 (25.4)	14 (356)	21-1/2 (546)	225 (102)
MRY 06	18 (457)	10 (254)	16 (406)	12 (305)	19 (483)	1-1/2 (38)	18 (457)	24-1/2 (622)	240 (109)
MRY 08	18 (457)	12 (305)	16 (406)	12 (305)	19 (483)	1-1/2 (38)	18 (457)	24-1/2 (622)	260 (118)
MRY 10	22 (559)	16 (406)	18 (457)	16 (406)	23 (584)	2-1/2 (63.5)	22 (559)	28-1/2 (724)	280 (127)
MRY 12	22 (559)	16 (406)	18 (457)	16 (406)	23 (584)	2-1/2 (63.5)	22 (559)	28-1/2 (724)	305 (138)

- Unit weights are approximate (shown in pounds and kg) and are based on dry coils, minimum rows and exclude packaging, valves or other components.
  - Units are fabricated of galvanized steel with a 16-gauge galvanized fan deck.

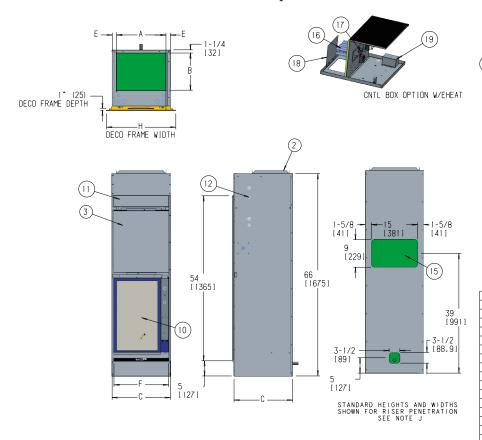
  - Threaded fittings must be field tightened.
    Thermostats shipped loose for field installation.
  - All risers ship separately from unit if ordered.
  - Blower, motor, valves, coil, and filter are accessible through the return air opening.
  - Standard riser penetration height is 39 inches A.F.F. Contact factory for alternate heights.
  - Deco frame not shown in main view unless otherwise noted for dimension values.
  - Hoses ship with unit (not shown).
  - Opening provided in the back panel for coil connection to permit expansion and contraction of risers. Coil connections to be at the center of the slots.
  - See unit arrangements for supply and return air orientation.
  - Dimensions are in inches, dimension in ( ) are in millimeters.

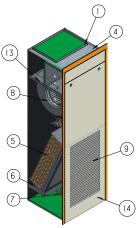
Drawing is provided for reference only. Dimensions may vary with options ordered. Consult IEC website for submittal drawings.



### **Submittal Data**

### MRY - ReStoramod® 66 inch Partially-Concealed Hi-Rise





UNIT SHOWN WITH FRAMED DECO PANEL SIDE PANEL REMOVED FOR CLARITY

ITEM	DESCRIPTION
I	SUPPLY OPENING
2	DUCT COLAR I"(25)EXT (TYP)
3	RA ACOUSTICAL SVC PANEL
4	ELECTRICAL KNOCK OUTS
5	COIL 1/2" (13) O.D.
6	DRAIN PAN
7	FLEX DRAIN TUBE/P-TRAP
8	MOTOR/BLOWER HOUSING
9	RETURN AIR OPENING
10	FILTER
11	ACCESS PANEL (CONTROL BOX)
12	KNOCKOUT FOR REMOTE MNT TSTAT
13	CONTROL BOX
14	FRAMED DECO PANEL
15	CC RISER PAD (4 PIPE SHOWN)
16	STRIP HEATER (OPTIONAL E HEAT)
1.7	HEAT LIMIT SWITCH (OPTIONAL E HEAT)
18	HEAT SHIELD (OPTIONAL E HEAT)
19	SVC SWITCH (OPTIONAL)

	Dimension – Inches (Millimeters)							
Unit Model	Top S	Top Supply		Dime	nsions		Unit Weight*	
	А	В	С	Е	F	Н		
MRY 03	14 (356)	10 (254)	16 (406)	1 (25.4)	14 (356)	21-1/2 (546)	360 (163)	
MRY 04	14 (356)	10 (254)	16 (406)	1 (25.4)	14 (356)	21-1/2 (546)	450 (204)	
MRY 06	16 (406)	12 (305)	19 (483)	1-1/2 (38)	18 (457)	24-1/2 (622)	480 (217)	
MRY 08	16 (406)	12 (305)	19 (483)	1-1/2 (38)	18 (457)	24-1/2 (622)	520 (236)	
MRY 10	18 (457)	16 (406)	23 (584)	2-1/2 (63.5)	22 (559)	28-1/2 (724)	560 (254)	
MRY 12	18 (457)	16 (406)	23 (584)	2-1/2 (63.5)	22 (559)	28-1/2 (724)	610 (276)	

- Unit weights are approximate (shown in pounds and kg) and are based on dry coils, minimum rows and exclude packaging, valves or other components.
  - Units are fabricated of galvanized steel with a 16-gauge galvanized fan deck.

  - Threaded fittings must be field tightened.
    Thermostats shipped loose for field installation.
  - All risers ship separately from unit if ordered.
  - Blower, motor, valves, coil, and filter are accessible through the return air opening.
  - Unit and control box are insulated.
  - Standard riser penetration height is 39 inches A.F.F. Contact factory for alternate heights.
  - Deco frame not shown in main view unless otherwise noted for dimension values.
  - Hoses ship with unit (not shown).
  - Opening provided in the back panel for coil connection to permit expansion and contraction of risers. Coil connections to be at the center of the slots.
  - See unit arrangements for supply and return air orientation.
  - Dimensions are in inches, dimension in ( ) are in millimeters

Drawing is provided for reference only. Dimensions may vary with options ordered. Consult IEC website for submittal drawings.



# **Modular Hi-Rise Replacement Series**FAN COIL TECHNICAL CATALOG

# **Standard Features and Options**

		Availability	
Factory-Installed Features & Options	Standard	Optional	Special (SFR Required)
Air Flow Arrangement			
See Unit Configurations - A1, H1, S1, D1, C1, T1, C2, M2 & W2	X	Х	
Other/Special Arrangements			X
Coils			
3-Rows 2-Pipe	X		
4-Rows 2-Pipe		Х	
5-Rows 2-Pipe			X
3/1, 3/2, or 4/1-Rows (CW/HW), 4-Pipe		Х	
Manual Air Vent	X		
Automatic Air Vent		Х	
Drain Pan			
Stainless Steel Externally Coated with a 2-part closed cell foam	X		
Antimicrobial Coating		Х	
Coil Construction			
Aluminum Fins with Galvanized Wrapper	X		
Aluminum Fins with Stainless Steel Wrapper		Х	
Copper Fins with Stainless Steel Wrapper & Bottom Coil Baffle		Х	
Electric Heat			
Nichrome Wire Strip Electric Heater		Х	
Filters			
1" Throwaway non-woven synthetic	X		
1" Permanent (washable media)		Х	
1" MERV 8 Pleated		X	
Insulation			
1/2" Standard dual-density fiberglass	X		
1/2" Premium IAQ Fiberglass, sealed edges			X
1/2" Foil Face, taped edges		Х	
1/4" Closed Cell		Х	
Other/Special Insulation Types			X
Motor Type			
EC Motor w/ 3-Speed Fan Potentiometer Board	X		
EC Motor w/Proportional Fan		X	
EC Motor w/4-speed EVO Board (Fan Speed SSRs)		Х	
Motor Voltage			
120/1/60	Х		
208/230/277/1/60		X	

Table continued on next page



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# **Standard Features and Options**

### Table continued from previous page

		Availability	
Factory-Installed Features & Options	Standard	Optional	Special (SFR Required)
Cabinet Modifications			
81" Cabinet Height			
86" Cabinet Height	X		
66" Cabinet Height		X	
Custom Cabinet Height			X
Cabinet Footprint Upsize (L x W)		X	
Controls			_
Service Switch with Lockout Tabs		X	
Incoming Power Fusing		X	
24V Controls		X	
Line Voltage Controls	X		
Condensate Overflow Switch		X	
Solid State Relays (SSRs) - Electric Heat			X
DDC/Special/Customer Supplied Control			X
Thermostats			
Unit Mounted (Behind RA Panel)			X
Outside Air Dampers			
Manual Controlled Damper			Х
Motorized Controlled Damper			X
Supply Grilles			
Double Deflection, Aluminum Supply Grille		X	
Double Deflection, Aluminum Supply Grille w/Opposed Blade Dampers		X	
Custom Supply Grille			X
Return Air Panel			
Quick Finish Wall Panel Kit, Type "U" (Front/Side Supply)		X	
Quick Finish Wall Panel Kit, Type "V" (Top Supply Only)		X	
Custom Return Air Panel			X
Paint Options			
Bright White	X		
Arctic White		X	
Special Color			X
Thermostats			
Surface Mounted (with Device Tile Ring on RA Panel Surface)			Х
Wall or Remote Mounted		X	



**FAN COIL TECHNICAL CATALOG** 

### **Standard Features and Options**

As detailed in the table below, we offer a control for most of our customer's needs. Additional controls and devices are available to meet even the most demanding operating logic.

#### 3-speed Fan Control

All of our basic control schemes utilize a thermostat with a 3-speed switch to modulate the cooling output, to maximize the percentage of latent heat removal, and to further minimize the sound level when maximum cooling or heating performance is not required.

#### Low Voltage Control (24V)

An optional low voltage control is available with all of our control schemes.

#### **Condensate Overflow Switch**

This switch shuts down the unit when the water level in the drain pan reaches an unsafe level. New versions of building codes across the US are constantly being adopted, and may require this type of device.

#### **Fusing**

We offer optional incoming power fusing as well as blower motor and control sub-fusing for units that use electric heat.

#### **Thermostats**

Contain Commette lite	Thermostat Type*					
System Compatibility	Р	N	F	G		
2-Pipe, Heat Only	X	X	X	X		
2-Pipe, Cool Only	X	X	X	X		
2-Pipe, Heat/Cool	X	X	X	X		
2-Pipe, Heat/Cool with Auxilary Electric Heat	X	X	X	X		
2-Pipe, Cool with Total Electric Heat	X	X	X	X		
4-Pipe, Heat & Cool	X	X	X	X		
	Features					
24VAC	X	X	X	X		
Programmable	X		X			
Non-Programmable		X		X		
Surface Mount	X	X	X	X		
Remote/Wall Mount	X	X	X	X		
3-Speed Fan	X	X	X	X		
Proportional Fan (0-10VDC)			X	X		
Continuous Fan	Opt	Opt	Opt	Opt		
Cycling Fan	Opt	Opt	Opt	Opt		
Remote Temp Sensor	X	X	X	X		
"Adjustable Operating Range (Range Stop Kit)"	SFR	SFR	SFR	SFR		
Digital Display & Buttons	X	X	X	X		
Local Temp. Set-Back	X	X				
Water Temp. Purge Cycle	X	X				
Changeover Pipe Sensor	X	X	X	X		
Aqua Stat						
Proportional Control Valves			X	X		
Floating Ctrl. Valves (2P Only)			X	X		

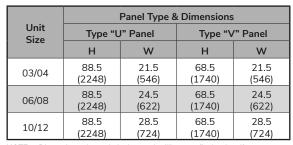
NOTE: All manufacturer thermostats are auto-changeover - Thermostat switches between heating and cooling on its own.

- \*LEGEND: P Basic 24V Digital Programmable Venstar

  - N Basic 24V Digital Non-Programmable Venstar F Premium 24V Digital 7-Day Programmable
  - $w/Proportional\ Options -\ Neptronic$  G  $\bullet$  Premium 24V Digital BACnet with Proportional Options Neptronic



## **Standard Features and Options**



NOTE: Dimensions shown in inches and millimeters (inches(mm)).



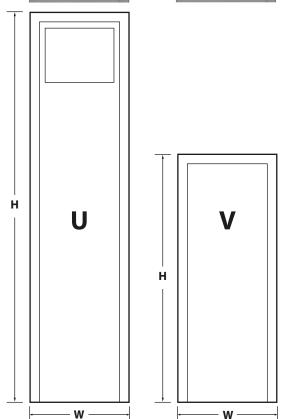
- Heavy-gauge galvanized-steel with Bright White powder-coated finish (standard color)
- Rear of panel is insulated with ½-inch dual-density fiberglass
- Integral stamped steel return air grille
- 1/4-turn tamper-proof fasteners for panel removal
- Removal of return air deco and acoustical RA block-off panels provide service access to all internal components
- Framed panel series requires separate field installation of frame

### **Return Air/Access Panel Application**

	Control Mounting Options	Availability
1.	Surface mounted controls: This requires a tile ring mounted on the return air panel and quick-connect plug wiring on the thermostat. The thermostat plug will be attached to a matching plug in the unit and the thermostat will be fastened to the tile ring.	SFR
2.	Unit mounted: Thermostat is mounted behind the acoustical RA block-off panel.	SFR
3.	Remote wall mounted: Thermostat is mounted on a wall remote from the cabinet and wiring from the unit to thermostat is done in the field.	Option





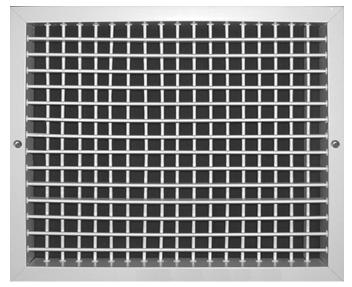




**FAN COIL TECHNICAL CATALOG** 

## **Standard Features and Options**

### **Supply Air Grilles**



NOTE: Standard double-deflection supply air grille shown.

Unit Size	Nom. CFM	Recommended Grille Sizes				
		Single Supply*	Double Supply	Top Supply		
03	300	14 (356) x 8 (203)	14 (356) x 6 (152)	14 (356) x 10 (254)		
04	400	14 (356) x 12 (305)	14 (356) x 6 (152)	14 (356) x 10 (254)		
06	600	18 (457) x 10 (254)	18 (457) x 6 (152)	16 (406) x 12 (305)		
08	800	18 (457) x 12 (305)	18 (457) x 6 (152)	16 (406) x 12 (305)		
10	1000	22 (559) x 16 (406)	22 (559) x 8 (203)	18 (457) x 16 (406)		
12	1200	22 (559) x 16 (406)	22 (559) x 8 (203)	18 (457) x 16 (406)		

#### **Specifications:**

Frame and blades are 6063 extruded aluminum alloy with 200-R1 satin anodized finish. The frame has a typical wall thickness of 0.050 inch and is separated from the blades with injection-molded nylon bushings. This method of assembly minimizes corrosion and vibration. The frame mounting holes are dimpled, allowing for a counter-sunk fastener head appearance.

All blades are airfoil in design, individually adjustable and spaced ¾ inch on center. At the outer edge of the frame is a specially engineered channel which retains an extruded flexible vinyl bulb gasket that produces a positive air seal at the mounting surface, minimizing smudging.

An optional opposed blade damper is screwdriveroperated through the face of the unit and has the same extruded aluminum construction and injection-molded nylon bushings.

The unit achieves an effective area of 80% with the blades set at a 0° pattern, thus eliminating high velocity and pressure drop at the grille face. Wider deflection with reduced throw may be achieved at the 22° and 45° blade settings with slightly increased sound levels.

Suitable for sidewall application. Available in clear anodized, white or a variety of custom colors. Contact the factory for available optional colors and color chart.

# **Standard Features and Options**

### **Filters**

Unit Size	Cab. Size	Nominal 1" Filter Size
03		12-1/2 (318) x 24-1/4 (616)
04		12-1/2 (318) × 24-1/4 (616)
06	0.0"	15-1/4 (387) × 26-3/4 (679)
08	86"	15-1/4 (387) × 26-3/4 (679)
10		19-1/2 (495) x 29-1/4 (743)
12		19-1/2 (495) × 29-1/4 (743)
03		12-1/2 (318) x 24-1/4 (616)
04	0.00	12-1/2 (318) × 24-1/4 (616)
06		15-1/4 (387) × 26-3/4 (679)
08	66"	15-1/4 (387) × 26-3/4 (679)
10		19-1/2 (495) x 29-1/4 (743)
12		19-1/2 (495) × 29-1/4 (743)

NOTE: Sizes shown are nominal ordering sizes.

### Filter Static Resistance (in w.c.)

		Filter Pressure Drop			
Unit Size	Nominal CFM	1" Throwaway	1" Permanent	1" Merv 8	
03	300	0.034	0.049	0.11	
04	400	0.045	0.074	0.13	
06	600	0.045	0.074	0.13	
08	800	0.058	0.114	0.16	
10	1000	0.056	0.106	0.15	
12	1200	0.065	0.141	0.17	



# **Modular Hi-Rise Replacement Series** FAN COIL TECHNICAL CATALOG

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# Modular Hi-Rise Replacement Series FAN COIL TECHNICAL CATALOG

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# **Modular Hi-Rise Replacement Series** FAN COIL TECHNICAL CATALOG



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