Thermal SUPPLY INC.

Submittal Package Data

Date:	7/23/13
Project:	Duniway
Contractor:	Reitmeier Mech
Supplier:	Anna Miller Thermal Supply Phone 503-937-1753
Contents:	PURY-P288TSKMU-A CMB-P1016NU-HA PEFY-P15NMAU-E2 PEFY-P24NMAU-E2 PEFY-P27NMAU-E2 PEFY-P30NMAU-E2 PEFY-P36NMAU-E2 LGH-F1200RX5-E PAC-YT53CRAU-J GB-50ADA-A - Standard Filter Boxes

*Pumps and Low Ambient Wind Baffles included per Schedule

Note: Sea Cost Protection not available on M-series or SUZ models.

13-18413-MT 2

CITYMULTI® Outdoor Unit: 24-TON PURY-P288TSKMU-A (-BS)

MITSUBISHI ELECTRIC

(Consists of Two PURY-P144TKMU-A (-BS) and One CMY-R100XLCBK Twinning Kit)

Job Name: Duniway

Schedule Reference: HP-1,2 | Date:

OUTDOOR VRF HEAT PUMP WITH HEAT RECOVERY SYSTEM FEATURES

- INVERTER-driven compressor
- Air-source, simultaneous cooling and heating
- Long line lengths - for details see Engineering Manual
- Connects to CITY MULTI indoor units
- Controlled via CITY MULTI Controls Network

UNIT OPTION

- □ Standard Model.....PURY-P288TSKMU-A
- □ Sea Coast (BS) Model.....PURY-P288TSKMU-A-BS

OPTIONAL PARTS

- □ Twinning Kit*.....CMY-R100XLCBK
- □ T-Branch Joint (≤ 72,000 Btu/h).....CMY-Y102SS-G2
- □ T-Branch Joint (73,000 - 144,000 Btu/h).....CMY-Y102LS-G2
- □ Branch Joint (T-Branch: 145,000-234,000 Btu/h).....CMY-Y202S-G2
- □ Joint Adapter (Port Connector > 54,000 Btu/h).....CMY-R160C-J
- □ Main BC Controller.....CMB-P1016NU-HA
- □ Sub BC Controller.....CMB-P104/108NU-GB/1016NU-HB
- □ Low Ambient Kit .....for details see Low Ambient Kit Submittal

* Twinning Kit is necessary to combine the refrigerant flows of the modules and included in the outdoor unit set.

Specifications		System	Module 1	Module 2
Unit Type		PURY-P288TSKMU-A (-BS)	PURY-P144TKMU-A (-BS)	PURY-P144TKMU-A (-BS)
Nominal Cooling Capacity	Btu/h	288,000	144,000	144,000
Nominal Heating Capacity	Btu/h	320,000	160,000	160,000
Operating Temperature Range	Cooling (Outdoor) *1	Refer to Module Data	23~115° F (-5~46° C) DB	
	Heating (Outdoor)		-4~60° F (-20~15.5° C) WB	
External Dimensions (H x W x D)	In. / mm	Refer to Module Data	64-31/32 x 68-29/32 x 29-5/32 1,650 x 1,750 x 740	64-31/32 x 68-29/32 x 29-5/32 1,650 x 1,750 x 740
Net Weight	Lbs. / kg	1,430 (648)	715 (324)	715 (324)
External Finish		Refer to Module Data	Pre-coated galvanized steel sheet	
Electrical Power Requirements	Voltage, Phase, Hertz	Refer to Module Data**	208 / 230V, 3-Phase, 60Hz	
Cooling Power Input	kW	24.57	Refer to System Data	
Heating Power Input	kW	27.62		
Cooling Current (208/230V)	R.L.A.	75.7-68.5		
Heating Current (208/230V)	R.L.A.	85.1-77.0		
Minimum Circuit Ampacity (MCA)	A	Refer to Module Data**	53 / 48	53 / 48
Recommended Fuse/Breaker Size	A	Refer to Module Data**	60	60
Maximum Fuse Size	A	Refer to Module Data**	60	60
Piping Diameter				
From Twinning Kit to Indoor Units (Brazed) (In. / mm)	Liquid (High Pressure)	1-1/8 (28.58) Brazed	Refer to System Data	
	Gas (Low Pressure)	1-3/8 (34.93) Brazed		
Max. Total Refrigerant Line Length	Ft.	3,117	Refer to System Data	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541		
Max. Control Wiring Length	Ft.	1,650		
Indoor Unit	Total Capacity	50~150% of ODUs	Refer to System Data	
	Model / Quantity	P06~P96/2~50 (Max. No. Connectable Branches: 48)	Refer to System Data	
Sound Pressure Level	dB(A)	64	Refer to System Data	
Fan				
Type x Quantity		Refer to Module Data	Propeller fan x 2	Propeller fan x 2
Airflow Rate	CFM		11,300	11,300
External Static Pressure	In. WG (Pa)	Refer to Module Data	Selectable; 0, 0.12 or 0.24"WG; factory set to 0"W.G.	
Compressor Operating Range		7% to 100%	Refer to System Data	
Compressor Type x Quantity		Refer to Module Data	Inverter-driven Scroll Hermetic x 1	Inverter-driven Scroll Hermetic x 1
Refrigerant		Refer to Module Data	R410A x 26 lbs + 1 oz (11.8 kg)	R410A x 26 lbs + 1 oz (11.8 kg)
Protection Devices	High Pressure	Refer to Module Data	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit (Comp. / Fan)		Over-current protection	Over-current protection
	Fan Motor		Thermal switch	Thermal switch
AHRI Ratings (Ducted/Non-Ducted)	EER	11.2 / 11.3	Refer to System Data	
	IEER	17.6 / 18.6		
	COP	3.41 / 3.20		
Simultaneous Rating (Ducted/Non-Ducted)	SCHE *2	18.20 / 19.03	Refer to System Data	

Blue Fin Anti-corrosion Protection: Cellulose- and polyurethane-resin coating treatment applied to condenser coil that protects it from air contaminants
Standard: ≥1μm thick; Salt Spray Test Method - no unusual rust development to 480 hours.
Sea Coast (BS): ≥1μm thick; Salt Spray Test Method - no unusual rust development to 960 hours.

NOTES:

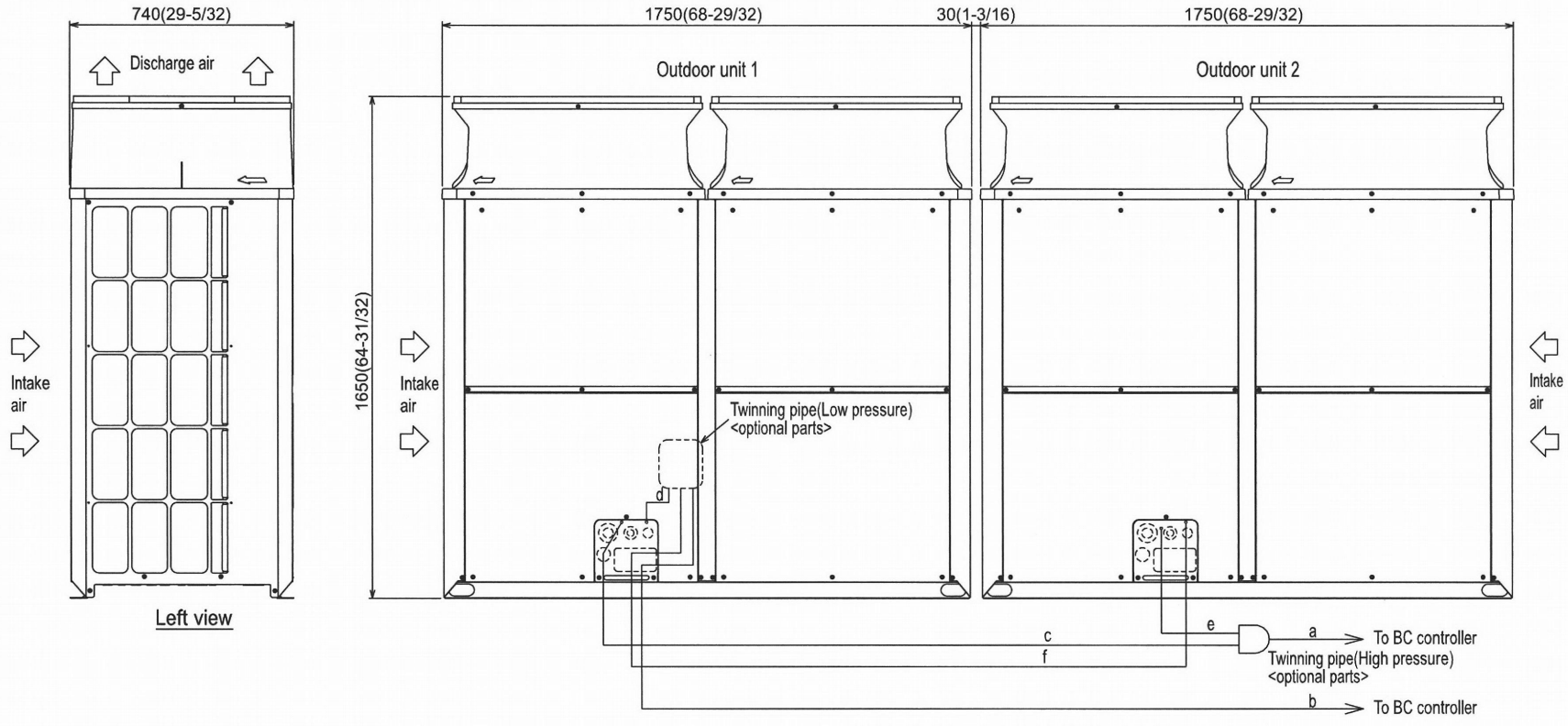
*1. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal.
*2. Simultaneous Cooling and Heating Efficiency

** Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

Specifications are subject to change without notice.

© 2013 Mitsubishi Electric US, Inc.

Outdoor Unit: PURY-P288TSKMU-A (-BS) – DIMENSIONS



Twinning pipe connection size

Package unit name			PURY-P240TSKMU-A(-BS)	PURY-P264TSKMU-A(-BS)	PURY-P288TSKMU-A(-BS)
Component unit name	Outdoor unit 1		PURY-P120TKMU-A(-BS)	PURY-P144TKMU-A(-BS)	PURY-P144TKMU-A(-BS)
	Outdoor unit 2		PURY-P120TKMU-A(-BS)	PURY-P120TKMU-A(-BS)	PURY-P144TKMU-A(-BS)
Outdoor Twinning Kit(optional parts)			CMY-R100XLCBK		
BC controller~Twinning pipe	High pressure	a	ø28.58(1-1/8)		
	Low pressure	b	ø34.93(1-3/8)		

	Unit model	P240				P264				P288			
	Component unit model	P120		P120		P144		P120		P144		P144	
Twinning Kit ~Outdoor unit	High pressure	c	ø19.05(3/4)	e	ø19.05(3/4)	c	ø22.2(7/8)	e	ø19.05(3/4)	c	ø22.2(7/8)	e	ø22.2(7/8)
	Low pressure	d	- (Note 5)	f	ø28.58(1-1/8)	d	- (Note 5)	f	ø28.58(1-1/8)	d	- (Note 5)	f	ø28.58(1-1/8)

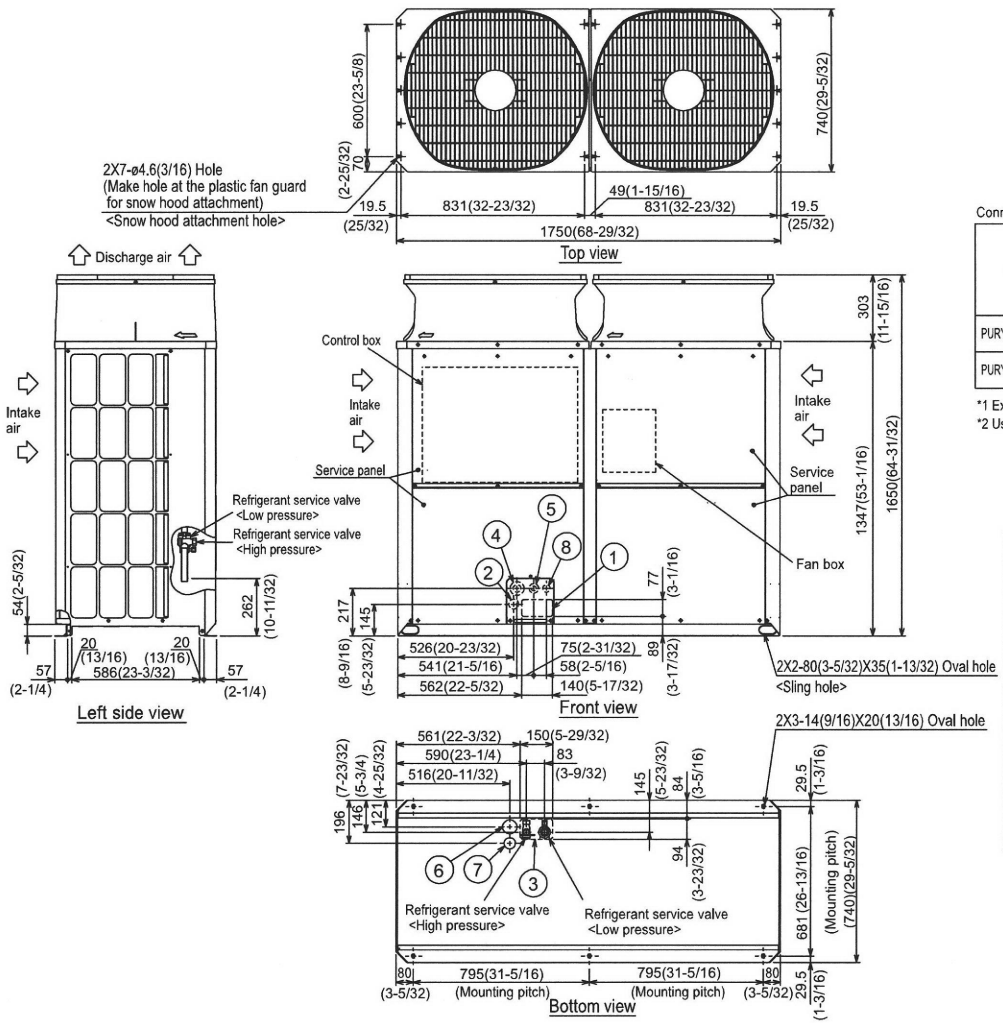
Note 1.Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2.Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
Be sure to see the Installation Manual for details of Twinning pipe installation.
3.The pipe section before the Twinning pipe (section "a" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
4.Only use the Twinning pipe by Mitsubishi (optional parts).
5.Connect the outdoor unit 1 with the Twinning pipe (Low pressure) (section "d" in the figure).

Unit : mm(in.)

Specifications are subject to change without notice.
© 2013 Mitsubishi Electric US, Inc.

Model: PURY-P144TKMU-A (-BS) – DIMENSIONS

Unit : mm(in.)



Note 1.Please refer to the engineering manual for information regarding necessary spacing around the unit and foundation work. Outdoor unit must be mounted at least 12" off the ground or 12" above the highest average snow depth, whichever is greater.

2.At brazing of pipes,wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-P120TKMU	ø19.05 Brazed (3/4) *2	ø28.58 Brazed (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)
PURY-P144TKMU	ø22.2 Brazed (7/8) *2	ø28.58 Brazed (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)

*1 Expand the on-site piping and connect to the refrigerant service valve piping.
*2 Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-17/32)(3-1/16)
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-25/32)
③		Bottom through hole	150 × 94 Knockout hole (5-29/32)(3-23/32)
④	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-15/32) (1-3/8)
⑤		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑥		Bottom through hole	ø65 Knockout hole (2-9/16)
⑦		Bottom through hole	ø52 Knockout hole (2-1/16)
⑧	For transmission cables	Front through hole	ø34 Knockout hole (1-11/32)

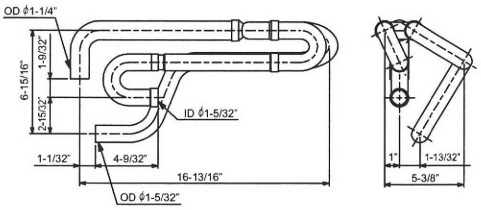
Specifications are subject to change without notice.
© 2013 Mitsubishi Electric US, Inc.

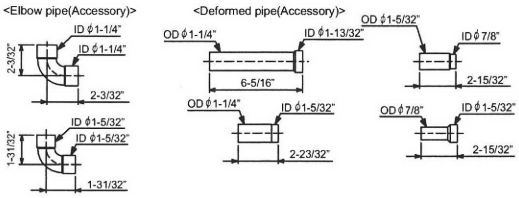
Twinning Kit: CMY-R100XLCBK

CMY-R100XLCBK

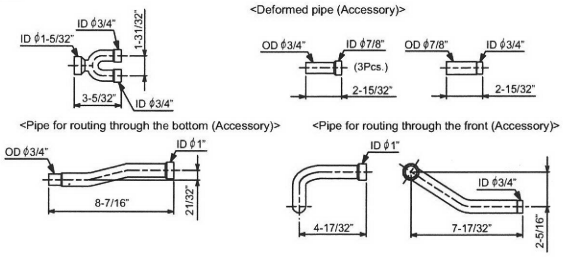
unit : inch

Low-pressure pipe twinning kit





High-pressure twinning pipe



Notes:

AHRI CERTIFIED™ www.ahridirectory.org Variable Refrigerant Flow (VRF) Multi-Split AC and HP AHRI Standard 1230

ETL LISTED US Intertek

Energy ENERGY STAR PARTNER

INVERTER

R410A

MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

1340 Satellite Boulevard
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822
www.mehvac.com

FORM# PURY-P288TSKMU-A (-BS) - 201306
Specifications are subject to change without notice.
© 2013 Mitsubishi Electric US, Inc.

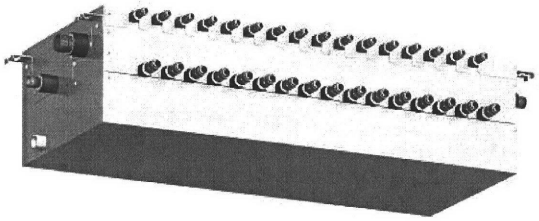
CITY MULTI®

Model: CMB-P1016NU-HA

MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: BCC-1 | Date:



BC CONTROLLER FEATURES

- R410A refrigerant
- Use with modular R2-Series outdoor units and WR2-Series water-source units with R410A refrigerant (T[S]HMU, Y[S]HMU, T[S]JMU, and Y[S]JMU versions)
- Each branch supports 54,000 Btu/h or less
- Use optional port connector when combining two branches if the total unit capacity is more than 54,000 Btu/h
- Included reducers are necessary for indoor units 18,000 Btu/h or less

MAIN BC CONTROLLER SPECIFICATIONS

Power

Power Source.....208 / 230V, 1 phase, 60Hz
Power Input
Cooling.....0.274 / 0.353 kW/h
Heating.....0.137 / 0.177 kW/h
Current
Cooling (208 / 230).....1.32 / 1.54 A
Heating (208 / 230).....0.66 / 0.77 A
Minimum Circuit Ampacity (MCA).....1.63 A
Maximum Overcurrent Protection (MOCP).....15 A

External Finish.....Galvanized Steel Plate
Lower Drain Pan: Pre-coated Galvanized Sheets with Powder Coating

External Dimensions
Inches.....11-7/16 H x 43-3/4 W x 20-1/2 D
mm.....289 H x 1,110 W x 520 D

Net Weight.....172 lbs. / 78 kg

Number of Branches.....16

Indoor Unit Capacity Connectable to one Branch
- Model P54 or smaller
- Use optional port connector when combining two branches if the total unit capacity exceeds 54,000 Btu/h
- Use the reducer (standard accessory) when an indoor unit of 18,000 Btu/h or smaller is connected

Refrigerant.....R410A

R410A

Refrigerant Piping Diameter
To Outdoor and Water-source Units

P72
High Pressure Pipe . . . . . .5/8" / 15.88 mm Brazed
Low Pressure Pipe . . . . . .3/4" / 19.05 mm Brazed

P96
High Pressure Pipe . . . . . .3/4" / 19.05 mm Brazed
Low Pressure Pipe . . . . . .7/8" / 22.2 mm Brazed

P120
High Pressure Pipe . . . . . .3/4" / 19.05 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed

P144/P168/P192
High Pressure Pipe . . . . . .7/8" / 22.2 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed

P216
High Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed

P240
High Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Low Pressure Pipe (R2) . . 1-3/8" / 34.93 mm Brazed
Low Pressure Pipe (WR2) 1-1/8" / 28.58 mm Brazed

P264/P288
High Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Low Pressure Pipe . . . . . 1-3/8" / 34.93 mm Brazed

To Indoor Unit
Liquid Pipe. . . . . 3/8" / 9.52 mm Flare
(1/4" / 6.35 mm with attached reducer used
1/2" / 12.7 mm with optional port connector used)
Gas Pipe . . . . . 5/8" / 15.88 mm Flare
(1/2" / 12.7 mm with attached reducer used,
3/4" / 19.05 mm and 7/8" / 22.2 mm
with optional port connector used)

To Sub BC Controller
Total indoor unit capacity ≤72,000 Btu/h
High Gas Pressure Pipe . . . .5/8" / 15.88 mm Brazed
Low Gas Pressure Pipe. . . . .3/4" / 19.05 mm Brazed
Liquid Pipe. . . . . .3/8" / 9.52 mm Brazed

Total indoor unit capacity 73,000 to 108,000 Btu/h
High Gas Pressure Pipe . . . .3/4" / 19.05 mm Brazed
Low Gas Pressure Pipe. . . . . .7/8" / 22.2 mm Brazed
Liquid Pipe. . . . . .3/8" / 9.52 mm Brazed

Total indoor unit capacity 109,000 to 126,000 Btu/h
High Pressure Pipe . . . . . .3/4" / 19.05 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Liquid Pipe. . . . . .1/2" / 12.7 mm Brazed

Total indoor unit capacity 127,000 to 144,000 Btu/h
High Pressure Pipe . . . . . .7/8" / 22.2 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Liquid Pipe. . . . . .1/2" / 12.7 mm Brazed

Total indoor unit capacity 145,000 to 168,000 Btu/h
High Pressure Pipe . . . . . .7/8" / 22.2 mm Brazed
Low Pressure Pipe . . . . . 1-1/8" / 28.58 mm Brazed
Liquid Pipe. . . . . .5/8" / 15.88 mm Brazed

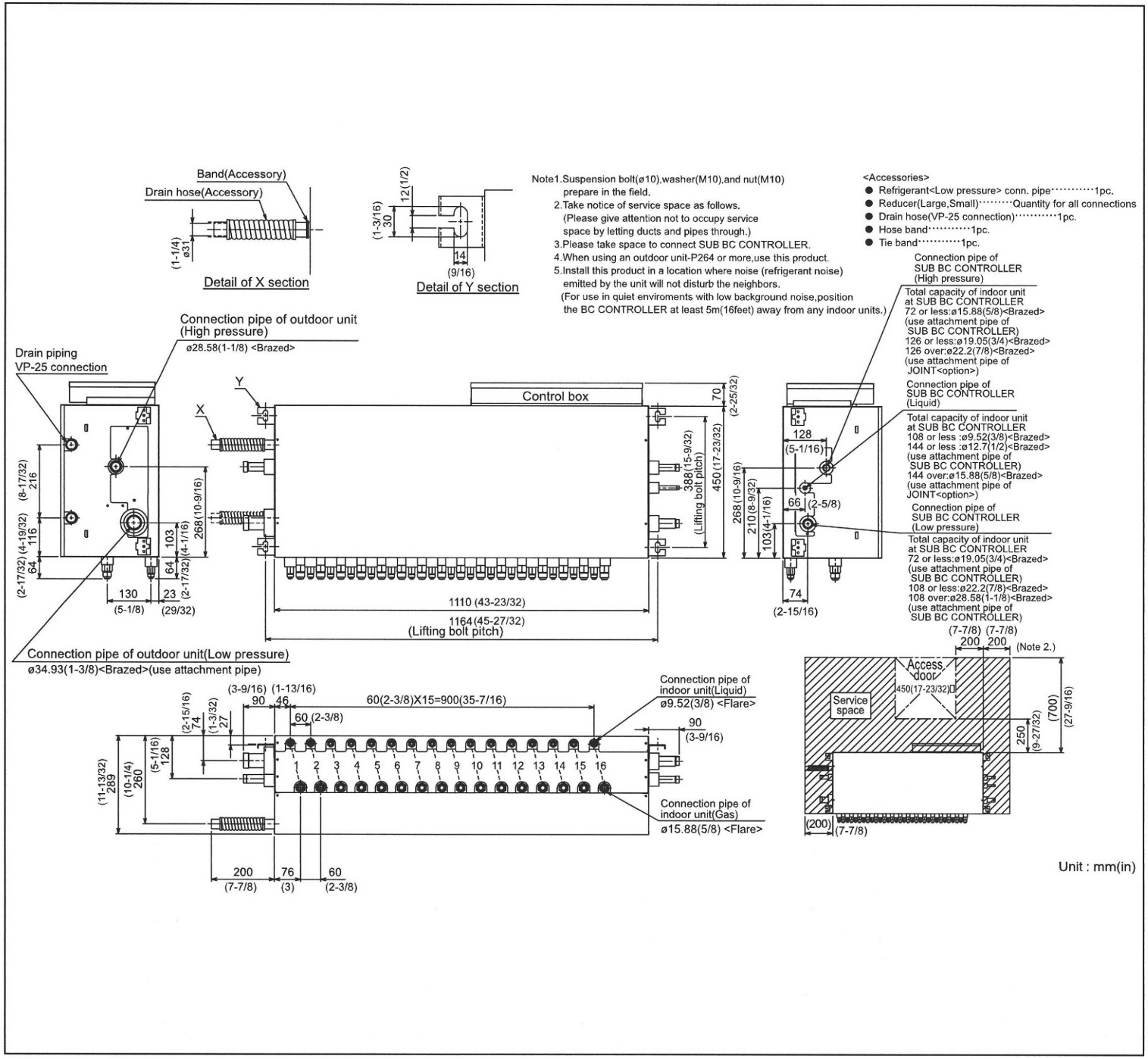
Drainpipe. . . . . O.D. 1-1/4" / 32 mm

OPTIONS
□ Joint Adapter (Port connector). CMY-R160-J
□ Branch Joint (T-Branch) CMY-Y102S-G2
□ Condensate Pump SI3100-230
□ Ball Valve (3/8" SAE Flare) BV38FFSI
□ Ball Valve (5/8" SAE Flare) BV58FFSI

Specifications are subject to change without notice.

© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: CMB-P1016NU-HA – DIMENSIONS



AHRI CERTIFIED™ www.ahridirectory.org Variable Refrigerant Flow (VRF) Multi Split AC and HP AHRI Standard 1230

Intertek

LISTED ETL US

ENERGY STAR PARTNER

MITSUBISHI ELECTRIC

COOLING & HEATING — Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#3)
www.mehvac.com

Specifications are subject to change without notice.

FORM# CMB-P1016NU-HA - 201205

Specifications are subject to change without notice.

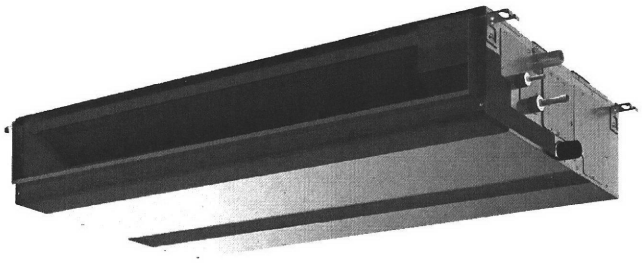
© 2012 Mitsubishi Electric & Electronics USA, Inc.

CITYMULTI® Model: PEFY-P15NMAU-E2

MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: FC-2,6 | Date:



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

OPTIONS

- ☐ External Heater Adapter.....CN24RELAY-KIT-CM3
- ☐ Filter Box (Includes 2" MERV 13 filter).....FBM2-2

SPECIFICATIONS

Capacity*
Cooling.....15,000 Btu/h
Heating.....17,000 Btu/h

Power
Power Source.....208 / 230V, 1-phase, 60Hz
Power Consumption
Cooling.....0.09 kW
Heating.....0.07 kW
Current
Cooling.....0.67 A
Heating.....0.56 A
Minimum Circuit Ampacity (MCA).....1.45 A
Maximum Overcurrent Protection (MOCP) Fuse.....15 A

External Finish.....Galvanized-steel Sheet

External Dimensions
Inches.....9-7/8 H x 35-7/16 W x 28-7/8 D
mm.....250 H x 900 W x 732 D

Net Weight.....58 lbs. / 26 kg

Coil Type.....Cross Fin
(Aluminum Plate Fin and Copper Tube)

Fan
Type x Quantity.....Sirocco Fan x 1
Airflow Rate (Low-Mid-High)..... 353 - 424 - 494 CFM
External Static Pressure.....0.14 - 0.20 - 0.28 - 0.40 - 0.60"WG
Motor Type.....DC Motor

Air Filter.....Polypropylene Honeycomb

Refrigerant Piping Dimensions
Liquid (High Pressure).....1/4" / 6.35 mm (Brazed)
Gas (Low Pressure).....1/2" / 12.7 mm (Brazed)

Drainpipe Dimension.....O.D. 1-1/4" / 32 mm

Sound Pressure Levels
Low-Mid-High.....28 - 30 - 34 dB(A)

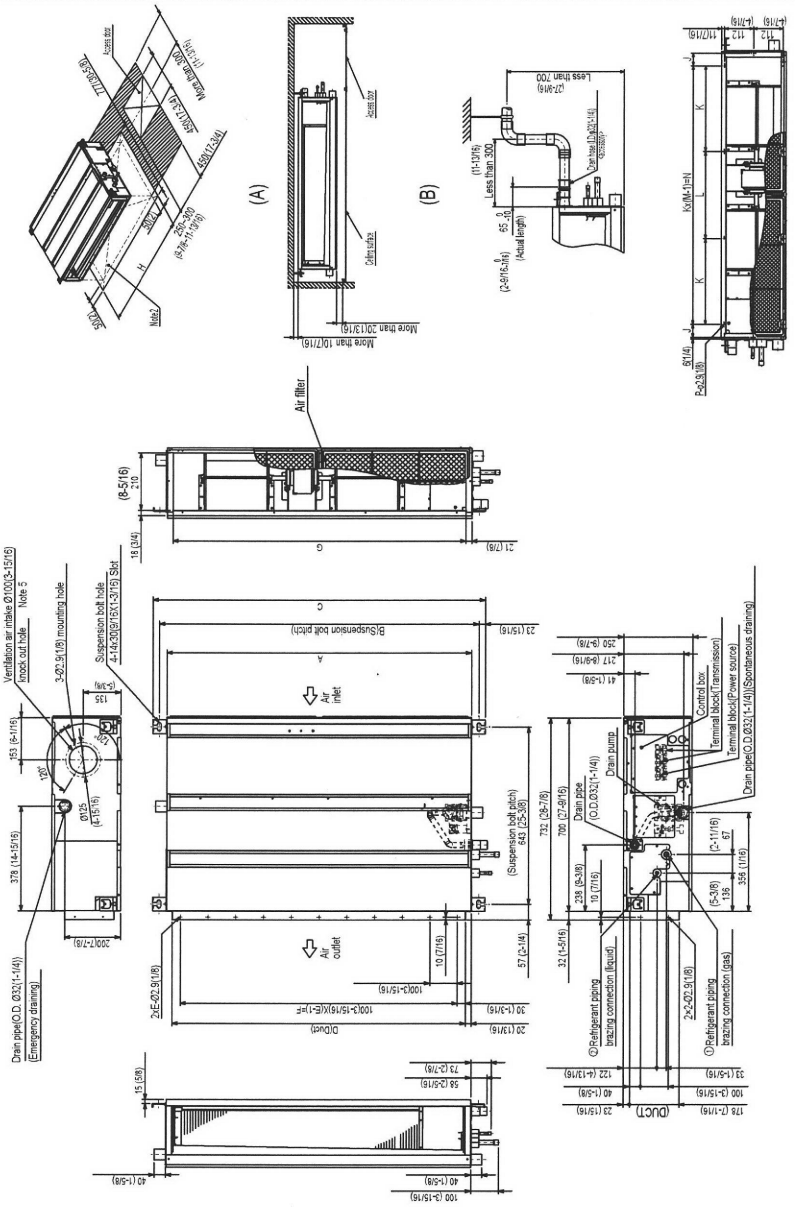
* Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB,
Cooling | Indoor: Outdoor 95° F (35° C) DB
Heating | Indoor: 70° F (21° C) DB,
Heating | Outdoor 47° F (8° C) DB / 43° F (6° C) WB

Notes:

R410A

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PEFY-P15NMAU-E2 – DIMENSIONS



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Ⓖ Gas pipe	Ⓛ Liquid pipe
PEFY-P06,08,12NMAU-E2	700 (27-9/16)	734 (29-1/16)	800 (31-1/2)	660 (26)	7	800 (25-3/8)	638 (25-15/16)	800 (31-1/2)	44 (1-3/4)	150 (5-15/16)	300 (11-13/16)			10	Ø12.7 (1/2)	Ø6.35 (1/4)
PEFY-P15,P18NMAU-E2	920 (36-1/4)	954 (37-9/16)	1000 (39-3/8)	850 (33-7/8)	9	1000 (31-1/2)	838 (33-13/16)	1000 (39-3/8)	54 (2-3/16)	260 (10-1/4)		4	780 (30-3/4)	10		
PEFY-P24,27,30NMAU-E2	1150 (45-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1038 (41-11/16)	1200 (47-1/4)	49 (1-15/16)	330 (13)		4	990 (39)	10	Ø15.88 (5/8)	Ø9.52 (3/8)
PEFY-P36,48NMAU-E2	1410 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1300 (53-9/16)	14	1300 (51-3/16)	1338 (53-1/2)	1500 (59-1/16)	54 (2-3/16)	320 (12-5/8)		5	1280 (50-7/16)	12		
PEFY-P54NMAU-E2	1600 (63)	1634 (65-1/16)	1700 (66-15/16)	1500 (61-7/16)	16	1500 (59-1/16)	1538 (61-3/8)	1700 (66-15/16)	54 (2-3/16)	370 (14-5/8)		5	1460 (58-5/16)	12		

(A) Space required for service and maintenance.

(B) Provide an access door for maintenance at the bottom.

Note
1. Use M10 suspension bolts. (not supplied)
2. Provide an access door for maintenance at the bottom.
3. The dimensions in the table are those of the PEFY-P24, 27, 30, 36, 48, 54NMAU-E2 models, which have 2 fans. The PEFY-P06, 08, 12, 15, 18NMAU-E2 model have 1 fan.
4. To connect an intake duct, uninstall the air filter on the unit, and install a field supplied air filter on the intake duct on the intake side.
5. If using a ventilation air connection, air temperature must be at neutral conditions.

Intertek

FORM# PEFY-P15NMAU-E2 - 201207

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com

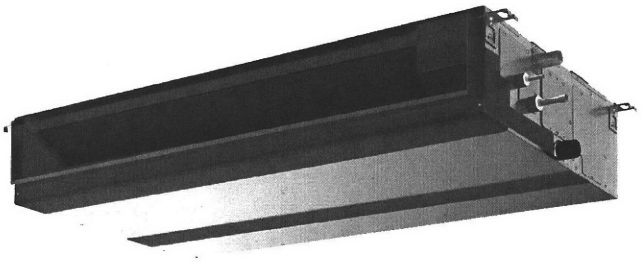
Specifications are subject to change without notice.

CITYMULTI® Model: PEFY-P24NMAU-E2

MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: FC-1,3,11,12 | Date:



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

OPTIONS

- ☐ External Heater Adapter.....CN24RELAY-KIT-CM3
- ☐ Filter Box (Includes 2" MERV 13 filter).....FBM2-3

SPECIFICATIONS

Capacity*
Cooling.....24,000 Btu/h
Heating.....27,000 Btu/h

Power
Power Source.....208 / 230V, 1-phase, 60Hz
Power Consumption
Cooling.....0.17 kW
Heating.....0.15 kW
Current
Cooling.....1.31 A
Heating.....1.20 A
Minimum Circuit Ampacity (MCA).....2.73 A
Maximum Overcurrent Protection (MOCP) Fuse.....15 A

External Finish.....Galvanized-steel Sheet

External Dimensions
Inches.....9-7/8 H x 43-5/16 W x 28-7/8 D
mm.....250 H x 1,100 W x 732 D

Net Weight.....67 lbs. / 30 kg

Coil Type.....Cross Fin
(Aluminum Plate Fin and Copper Tube)

Fan
Type x Quantity.....Sirocco Fan x 2
Airflow Rate (Low-Mid-High).....618 - 742 - 883 CFM
External Static Pressure.....0.14 - 0.20 - 0.28 - 0.40 - 0.60"WG
Motor Type.....DC Motor

Air Filter.....Polypropylene Honeycomb

Refrigerant Piping Dimensions
Liquid (High Pressure).....3/8" / 9.52 mm (Brazed)
Gas (Low Pressure).....5/8" / 15.88 mm (Brazed)

Drainpipe Dimension.....O.D. 1-1/4" / 32 mm

Sound Pressure Levels
Low-Mid-High.....30 - 34 - 39 dB(A)

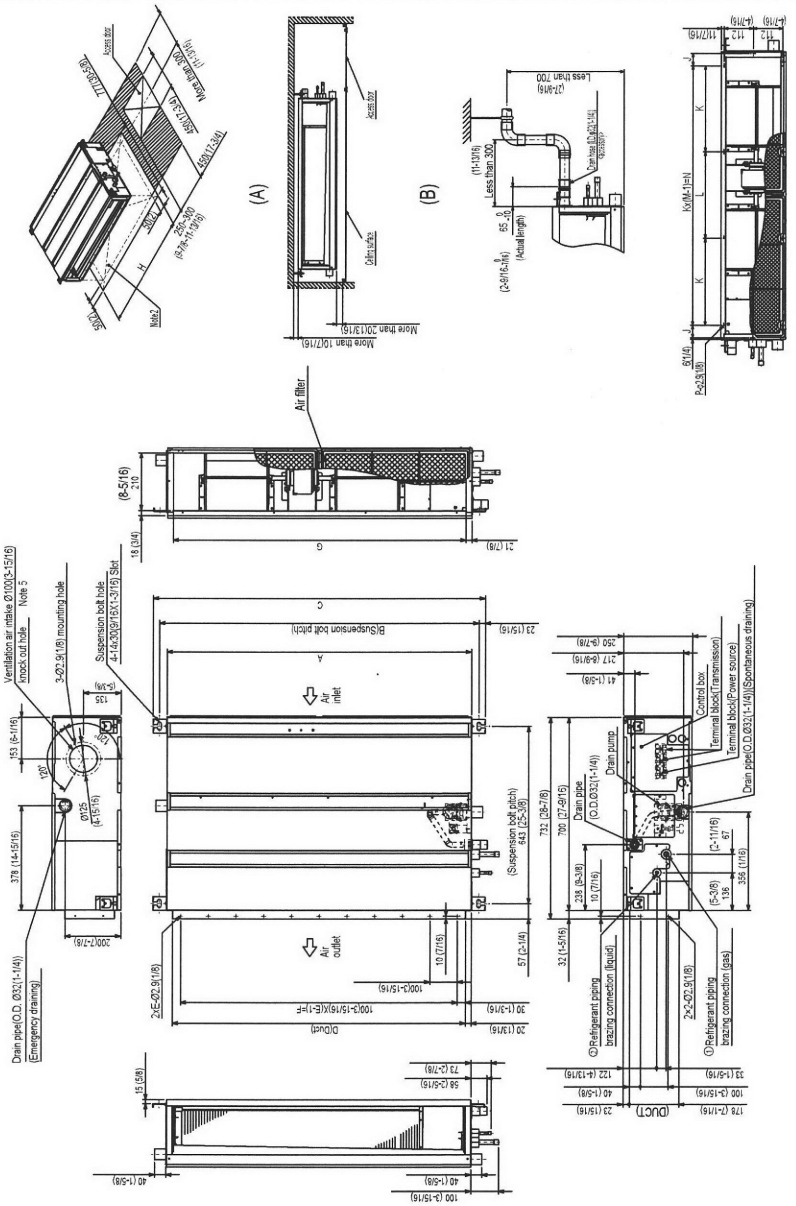
* Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB,
Cooling | Indoor: Outdoor 95° F (35° C) DB
Heating | Indoor: 70° F (21° C) DB,
Heating | Outdoor 47° F (8° C) DB / 43° F (6° C) WB

Notes:

R410A

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PEFY-P24NMAU-E2 – DIMENSIONS



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Ⓖ Gas pipe	Ⓛ Liquid pipe
PEFY-P06,08,12NMAU-E2	700 (27-9/16)	754 (29-11/16)	800 (31-1/2)	660 (26)	7	600 (23-5/8)	658 (25-15/16)	800 (31-1/2)	44 (1-3/4)	150 (5-15/16)	300 (11-13/16)			10	Ø12.7 (1/2)	Ø6.35 (1/4)
PEFY-P15,P18NMAU-E2	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	1000 (39-3/8)	54 (2-3/16)	280 (10-1/4)		4	780 (30-3/4)	10		
PEFY-P24,27,30NMAU-E2	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	1200 (47-1/4)	49 (1-15/16)	330 (13)		4	990 (39)	10	Ø15.88 (5/8)	Ø9.52 (3/8)
PEFY-P36,48NMAU-E2	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	1500 (59-1/16)	54 (2-3/16)	320 (12-5/8)		5	1280 (50-7/16)	12		
PEFY-P54NMAU-E2	1600 (63)	1654 (65-1/8)	1700 (66-15/16)	1560 (61-7/16)	16	1500 (59-1/16)	1558 (61-3/8)	1700 (66-15/16)	54 (2-3/16)	370 (14-5/8)		5	1480 (58-5/16)	12		

(A) Space required for service and maintenance.

(B) Provide an access door for maintenance at the bottom.

Note
1. Use M10 suspension bolts. (not supplied)
2. Provide an access door for maintenance at the bottom.
3. The dimensions in the table are those of the PEFY-P24, 27, 30, 36, 48, 54NMAU-E2 models, which have 2 fans. The PEFY-P06, 08, 12, 15, 18NMAU-E2 model have 1 fan.
4. To connect an intake duct, uninstall the air filter on the unit, and install a field supplied air filter on the intake duct on the intake side.
5. If using a ventilation air connection, air temperature must be at neutral conditions.

Intertek

FORM# PEFY-P24NMAU-E2 - 201207

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

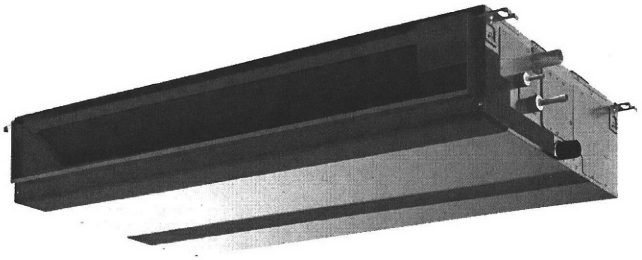
MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com
Specifications are subject to change without notice.

CITY**MULTI**® **Model: PEFY-P27NMAU-E2** MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: FC-5,9,10 | Date:



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

OPTIONS

- ☐ External Heater Adapter.....CN24RELAY-KIT-CM3
- ☐ Filter Box (Includes 2" MERV 13 filter).....FBM2-3

SPECIFICATIONS

Capacity*
Cooling.....27,000 Btu/h
Heating.....30,000 Btu/h

Power
Power Source.....208 / 230V, 1-phase, 60Hz
Power Consumption
Cooling.....0.17 kW
Heating.....0.15 kW
Current
Cooling.....1.31 A
Heating.....1.20 A
Minimum Circuit Ampacity (MCA).....2.73 A
Maximum Overcurrent Protection (MOCP) Fuse.....15 A

External Finish.....Galvanized-steel Sheet

External Dimensions
Inches.....9-7/8 H x 43-5/16 W x 28-7/8 D
mm.....250 H x 1,100 W x 732 D

Net Weight.....67 lbs. / 30 kg

Coil Type.....Cross Fin
(Aluminum Plate Fin and Copper Tube)

Fan
Type x Quantity.....Sirocco Fan x 2
Airflow Rate (Low-Mid-High).....618 - 742 - 883 CFM
External Static Pressure.....0.14 - 0.20 - 0.28 - 0.40 - 0.60"WG
Motor Type.....DC Motor

Air Filter.....Polypropylene Honeycomb

Refrigerant Piping Dimensions
Liquid (High Pressure).....3/8" / 9.52 mm (Brazed)
Gas (Low Pressure).....5/8" / 15.88 mm (Brazed)

Drainpipe Dimension.....O.D. 1-1/4" / 32 mm

Sound Pressure Levels
Low-Mid-High.....30 - 34 - 39 dB(A)

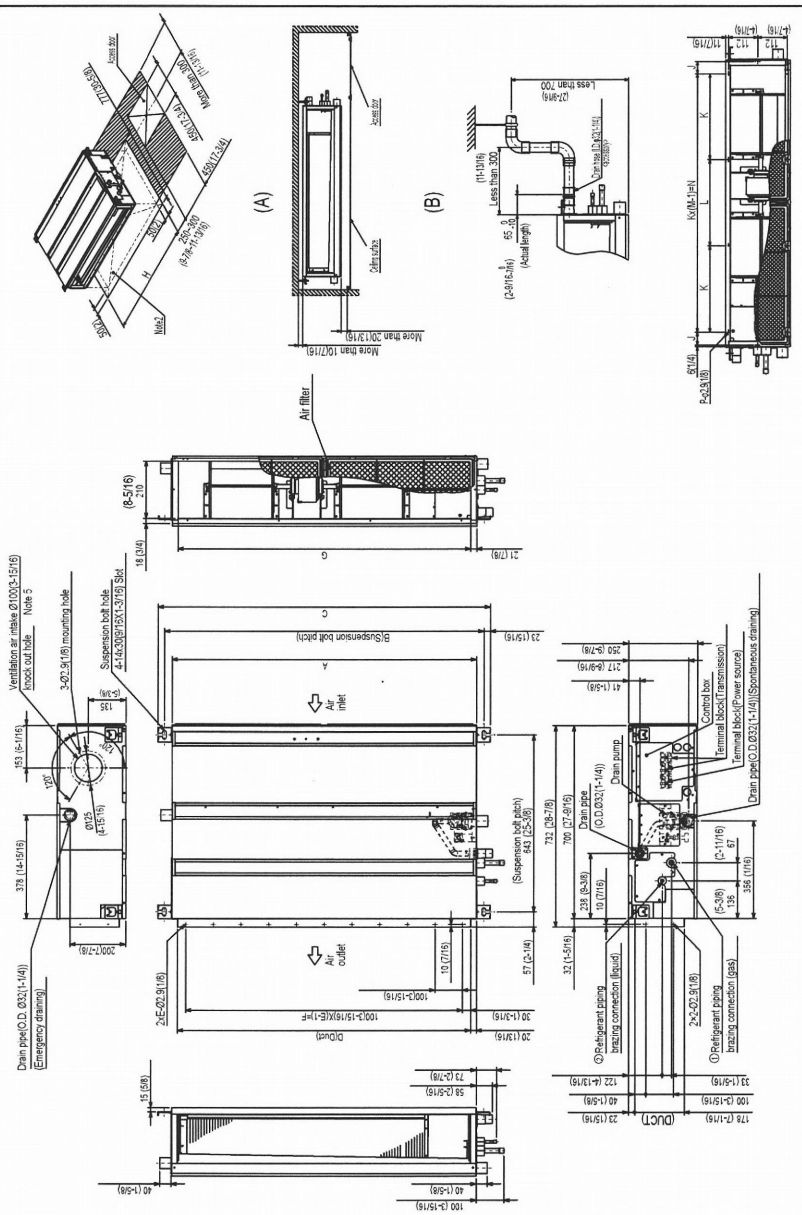
* Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB,
Cooling | Indoor: Outdoor 95° F (35° C) DB
Heating | Indoor: 70° F (21° C) DB,
Heating | Outdoor 47° F (8° C) DB / 43° F (6° C) WB

Notes:

R410A

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PEFY-P27NMAU-E2 – DIMENSIONS



Unit:mm(in.)

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Gas pipe	Liquid pipe
PEFY-P06,08,12NMAU-E2	700 (27-9/16)	754 (29-11/16)	800 (31-1/2)	660 (26)	7	600 (23-5/8)	658 (25-15/16)	800 (31-1/2)	44 (1-3/4)	150 (5-15/16)	300 (11-13/16)			10	Ø12.7 (1/2)	Ø6.35 (1/4)
PEFY-P15,P18NMAU-E2	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	1000 (39-3/8)	54 (2-3/16)	260 (10-1/4)		4	780 (30-3/4)	10		
PEFY-P24,27,30NMAU-E2	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	1200 (47-1/4)	49 (1-15/16)	330 (13)		4	990 (39)	10	Ø15.88 (5/8)	Ø9.52 (3/8)
PEFY-P36,48NMAU-E2	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	1500 (59-1/16)	54 (2-3/16)	320 (12-5/8)		5	1280 (50-7/16)	12		
PEFY-P54NMAU-E2	1600 (63)	1654 (65-1/8)	1700 (66-15/16)	1560 (61-7/16)	16	1500 (59-1/16)	1558 (61-3/8)	1700 (66-15/16)	54 (2-3/16)	370 (14-5/8)		5	1480 (58-5/16)	12		

(A) Space required for service and maintenance.

(B) Provide an access door for maintenance at the bottom.

Note
1. Use M10 suspension bolts. (not supplied)
2. Provide an access door for maintenance at the bottom.
3. The dimensions in the table are those of the PEFY-P24, 27, 30, 36, 48, 54NMAU-E2 models, which have 2 fans. The PEFY-P06, 08, 12, 15, 18NMAU-E2 model have 1 fan.
4. To connect an intake duct, uninstall the air filter on the unit, and install a field supplied air filter on the intake duct on the intake side.
5. If using a ventilation air connection, air temperature must be at neutral conditions.

Intertek

FORM# PEFY-P27NMAU-E2 - 201207

Specifications are subject to change without notice.

© 2012 Mitsubishi Electric & Electronics USA, Inc.

MITSUBISHI ELECTRIC

COOLING & HEATING

Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com

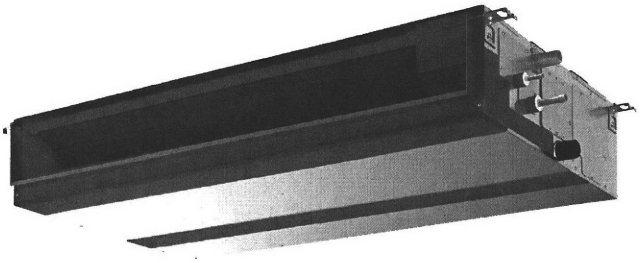
Specifications are subject to change without notice.

CITYMULTI® Model: PEFY-P30NMAU-E2

MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: FC-4 | Date:



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

OPTIONS

- ☐ External Heater Adapter.....CN24RELAY-KIT-CM3
- ☐ Filter Box (Includes 2" MERV 13 filter).....FBM2-3

SPECIFICATIONS

Capacity*
Cooling.....30,000 Btu/h
Heating.....34,000 Btu/h

Power
Power Source.....208 / 230V, 1-phase, 60Hz
Power Consumption
Cooling.....0.17 kW
Heating.....0.15 kW
Current
Cooling.....1.31 A
Heating.....1.20 A
Minimum Circuit Ampacity (MCA).....2.73 A
Maximum Overcurrent Protection (MOCP) Fuse.....15 A

External Finish.....Galvanized-steel Sheet

External Dimensions
Inches.....9-7/8 H x 43-5/16 W x 28-7/8 D
mm.....250 H x 1,100 W x 732 D

Net Weight.....67 lbs. / 30 kg

Coil Type.....Cross Fin
(Aluminum Plate Fin and Copper Tube)

Fan
Type x Quantity.....Sirocco Fan x 2
Airflow Rate (Low-Mid-High).....618 - 742 - 883 CFM
External Static Pressure...0.14 - 0.20 - 0.28 - 0.40 - 0.60"WG
Motor Type.....DC Motor

Air Filter.....Polypropylene Honeycomb

Refrigerant Piping Dimensions
Liquid (High Pressure).....3/8" / 9.52 mm (Brazed)
Gas (Low Pressure).....5/8" / 15.88 mm (Brazed)

Drainpipe Dimension.....O.D. 1-1/4" / 32 mm

Sound Pressure Levels
Low-Mid-High.....30 - 34 - 39 dB(A)

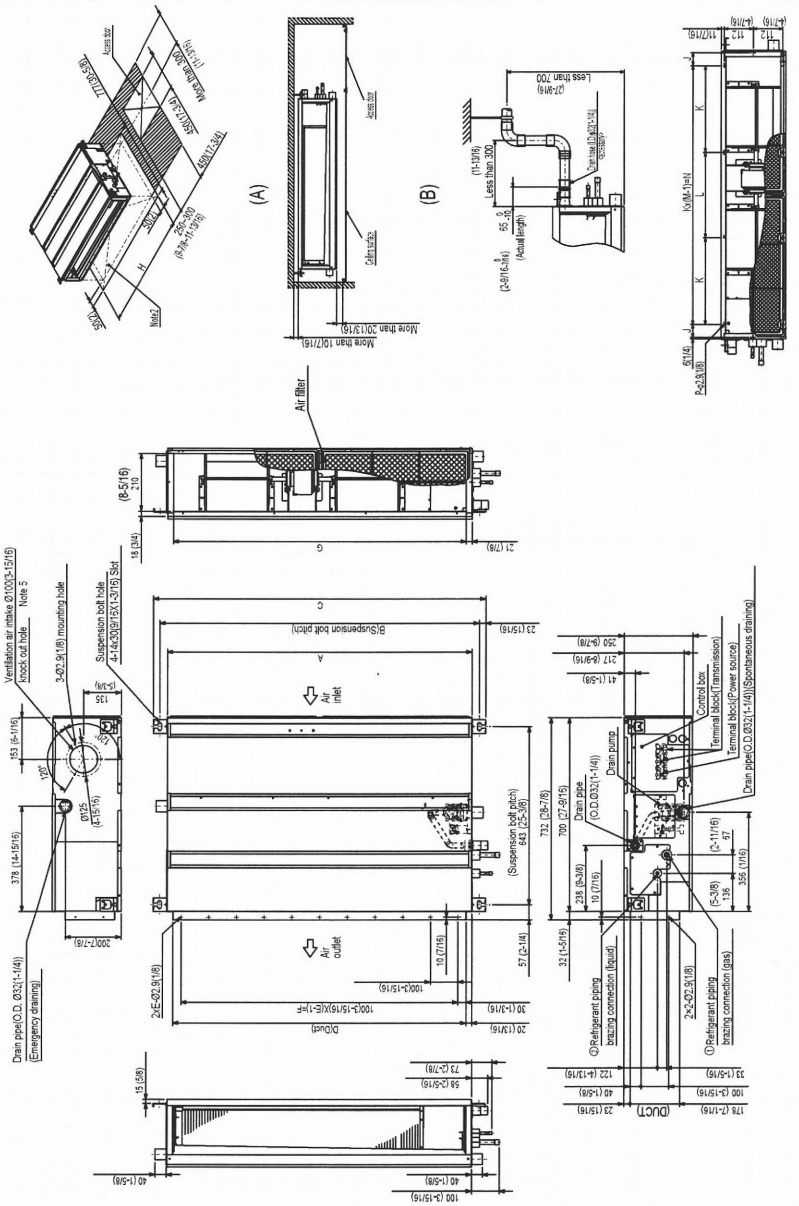
* Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB,
Cooling | Indoor: Outdoor 95° F (35° C) DB
Heating | Indoor: 70° F (21° C) DB,
Heating | Outdoor 47° F (8° C) DB / 43° F (6° C) WB

Notes:

R410A

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PEFY-P30NMAU-E2 – DIMENSIONS



Unit:mm(in.)

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Ⓖ Gas pipe	Ⓛ Liquid pipe
PEFY-P06,08,12NMAU-E2	700 (27-9/16)	754 (29-11/16)	800 (31-1/2)	660 (26)	7	600 (23-5/8)	658 (25-15/16)	800 (31-1/2)	44 (1-3/4)	150 (5-15/16)	300 (11-13/16)			10	Ø12.7 (1/2)	Ø6.35 (1/4)
PEFY-P15,P18NMAU-E2	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	1000 (39-3/8)	54 (2-3/16)	260 (10-1/4)		4	780 (30-3/4)	10		
PEFY-P24,27,30NMAU-E2	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	1200 (47-1/4)	49 (1-15/16)	330 (13)		4	990 (39)	10	Ø15.88 (5/8)	Ø9.52 (3/8)
PEFY-P36,48NMAU-E2	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	1500 (59-1/16)	54 (2-3/16)	320 (12-5/8)		5	1260 (50-7/16)	12		
PEFY-P54NMAU-E2	1600 (63)	1654 (65-1/8)	1700 (66-15/16)	1560 (61-7/16)	16	1500 (59-1/16)	1558 (61-3/8)	1700 (66-15/16)	54 (2-3/16)	370 (14-5/8)		5	1480 (58-5/16)	12		

(A) Space required for service and maintenance.

(B) Provide an access door for maintenance at the bottom.

Note
1. Use M10 suspension bolts. (not supplied)
2. Provide an access door for maintenance at the bottom.
3. The dimensions in the table are those of the PEFY-P24, 27, 30, 36, 48, 54NMAU-E2 models, which have 2 fans. The PEFY-P06, 08, 12, 15, 18NMAU-E2 model have 1 fan.
4. To connect an intake duct, uninstall the air filter on the unit, and install a field supplied air filter on the intake duct on the intake side.
5. If using a ventilation air connection, air temperature must be at neutral conditions.

Intertek

FORM# PEFY-P30NMAU-E2 - 201207

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

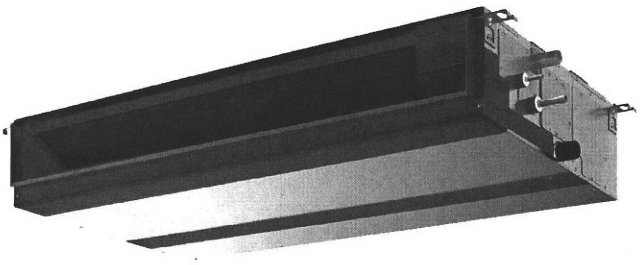
MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com
Specifications are subject to change without notice.

CITY**MULTI**® **Model: PEFY-P36NMAU-E2** MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: FC-7,8 | Date:



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

OPTIONS

- ☐ External Heater Adapter.....CN24RELAY-KIT-CM3
- ☐ Filter Box (Includes 2" MERV 13 filter).....FBM2-4

SPECIFICATIONS

Capacity*
Cooling.....36,000 Btu/h
Heating.....40,000 Btu/h

Power
Power Source.....208 / 230V, 1-phase, 60Hz
Power Consumption
Cooling.....0.24 kW
Heating.....0.22 kW
Current
Cooling.....1.50 A
Heating.....1.39 A
Minimum Circuit Ampacity (MCA).....3.50 A
Maximum Overcurrent Protection (MOCP) Fuse.....15 A

External Finish.....Galvanized-steel Sheet

External Dimensions
Inches.....9-7/8 H x 55-1/8 W x 28-7/8 D
mm.....250Hx1,400Wx732D

Net Weight.....86 lbs. / 39 kg

Coil Type.....Cross Fin
(Aluminum Plate Fin and Copper Tube)

Fan
Type x Quantity.....Sirocco Fan x 2
Airflow Rate (Low-Mid-High).....812 - 989 - 1,165 CFM
External Static Pressure.....0.14 - 0.20 - 0.28 - 0.40 - 0.60"WG
Motor Type.....DC Motor

Air Filter.....Polypropylene Honeycomb

Refrigerant Piping Dimensions
Liquid (High Pressure).....3/8" / 9.52 mm (Brazed)
Gas (Low Pressure).....5/8" / 15.88 mm (Brazed)

Drainpipe Dimension.....O.D. 1-1/4" / 32 mm

Sound Pressure Levels
Low-Mid-High.....32 - 37 - 41 dB(A)

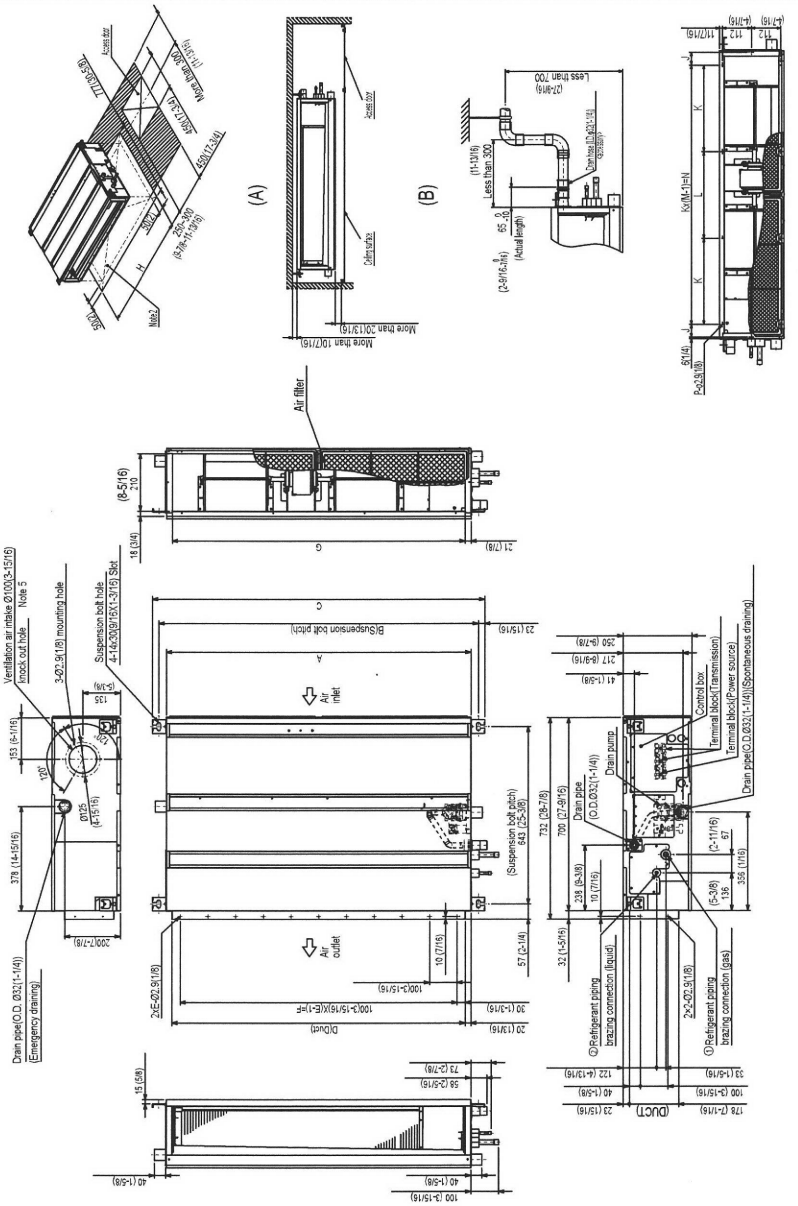
* Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB,
Cooling | Indoor: Outdoor 95° F (35° C) DB
Heating | Indoor: 70° F (21° C) DB,
Heating | Outdoor 47° F (8° C) DB / 43° F (6° C) WB

Notes:

R410A

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PEFY-P36NMAU-E2 – DIMENSIONS



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Ⓖ Gas pipe	Ⓛ Liquid pipe
PEFY-P06,08,12NMAU-E2	700 (27-9/16)	754 (29-11/16)	800 (31-1/2)	860 (26)	7	600 (23-5/8)	658 (25-15/16)	800 (31-1/2)	44 (1-3/4)	150 (5-15/16)	300 (11-13/16)			10	Ø12.7 (1/2)	Ø6.35 (1/4)
PEFY-P15,P18NMAU-E2	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	1000 (39-3/8)	54 (2-3/16)	260 (10-1/4)		4	780 (30-3/4)	10		
PEFY-P24,27,30NMAU-E2	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	1200 (47-1/4)	49 (1-15/16)	330 (13)		4	990 (39)	10	Ø15.88 (5/8)	Ø9.52 (3/8)
PEFY-P36,48NMAU-E2	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	1500 (59-1/16)	54 (2-3/16)	320 (12-5/8)		5	1260 (50-7/16)	12		
PEFY-P54NMAU-E2	1600 (63)	1654 (65-1/8)	1700 (66-15/16)	1560 (61-7/16)	16	1500 (59-1/16)	1558 (61-3/8)	1700 (66-15/16)	54 (2-3/16)	370 (14-5/8)		5	1480 (58-5/16)	12		

(A) Space required for service and maintenance.

(B) Provide an access door for maintenance at the bottom.

Note
1. Use M10 suspension bolts. (not supplied)
2. Provide an access door for maintenance at the bottom.
3. The dimensions in the table are those of the PEFY-P24, 27, 30, 36, 48, 54NMAU-E2 models, which have 2 fans. The PEFY-P06, 08, 12, 15, 18NMAU-E2 model have 1 fan.
4. To connect an intake duct, uninstall the air filter on the unit, and install a field supplied air filter on the intake duct on the intake side.
5. If using a ventilation air connection, air temperature must be at neutral conditions.

Intertek

FORM# PEFY-P36NMAU-E2 - 201207

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

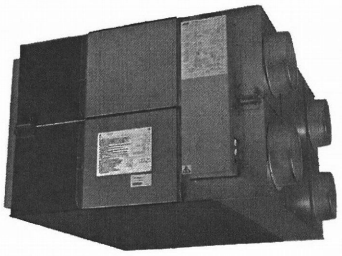
3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com
Specifications are subject to change without notice.

CITY**MULTI**® **Model: LGH-F1200RX5-E** MITSUBISHI ELECTRIC

Job Name: Duniway

Schedule Reference: ERV-1 | Date:

ENERGY RECOVERY VENTILATOR



GENERAL FEATURES

- Lossnay® cross-flow energy recovery core
- Minimal cross contamination (<1% overall) between entering and leaving air streams
- Stand-alone control
- M-NET
- External input bypass damper control
- Stand alone or interlocks with all Mitsubishi product

SPECIFICATIONS

Capacity . . . . . 1200 CFM / 34 m^3/min

Power
Power Source. . . . . 208 - 230V, 1-Phase, 60 Hz
Power Consumption . . . . . 0.639 - 1.303 kW
Current . . . . . 3.1 - 5.8 A
Starting Current . . . . . 10.0 A
Minimum Circuit Ampacity (MCA) . . . . . 7.1 A
Maximum Overcurrent Protection (MOCP) . . . . . 15 A

Controllers
PZ-60DR Lossnay® Controller: Controls 1-15 Lossnay® units, ON/OFF, Fan Speed, and Vent Mode

Operation Mode
- Heat Recovery
- Bypass
- Auto

Air Volume
(fan speed: low - high - extra high)
@ 208V . . . . . 695 - 1012 - 1200 CFM
@ 230V . . . . . 824 - 1200 - 1200 CFM

Temperature recovery efficiency
(fan speed: low - high - extra high)
@ 208V . . . . . 75 - 68 - 67%
@ 230V . . . . . 73 - 67 - 67%

Enthalphy recovery efficiency
(fan speed: low - high - extra high)
Heating
@ 208V . . . . . 71 - 65 - 64%
@ 230V . . . . . 68 - 64 - 64%

Cooling
@ 208V . . . . . 59 - 53 - 50%
@ 230V . . . . . 56 - 50 - 50%

External static pressure (In. W.G.)
(fan speed: low - high - extra high)
@ 208V . . . . . 0.20 - 0.43 - 0.43
@ 230V . . . . . 0.20 - 0.43 - 0.75

External Finish . . . . . Galvanized steel sheet

Dimensions
inches . . . . . 31-7/16 H x 48-1/2 W x 45-1/16 D
mm . . . . . 798 H x 1273 W x 1144 D

Net Weight . . . . . 265 lb / 120 kg

Energy Transfer . . . . . Lossnay® core

Heat Exchange System . . . . . Air-to-air total heat (sensible heat + latent heat) exchange, no moving parts

Heat Exchange Material . . . . . Partition, spacing plate-cellulose fiber membrane

Blower . . . . . 9.625 in. dia. centrigugal fan

Motor . . Totally enclosed capacitor permanent split-phase 0.52 HP induction motor, 4 poles, 2 units

Filter . . . . . Washable fiber (2)

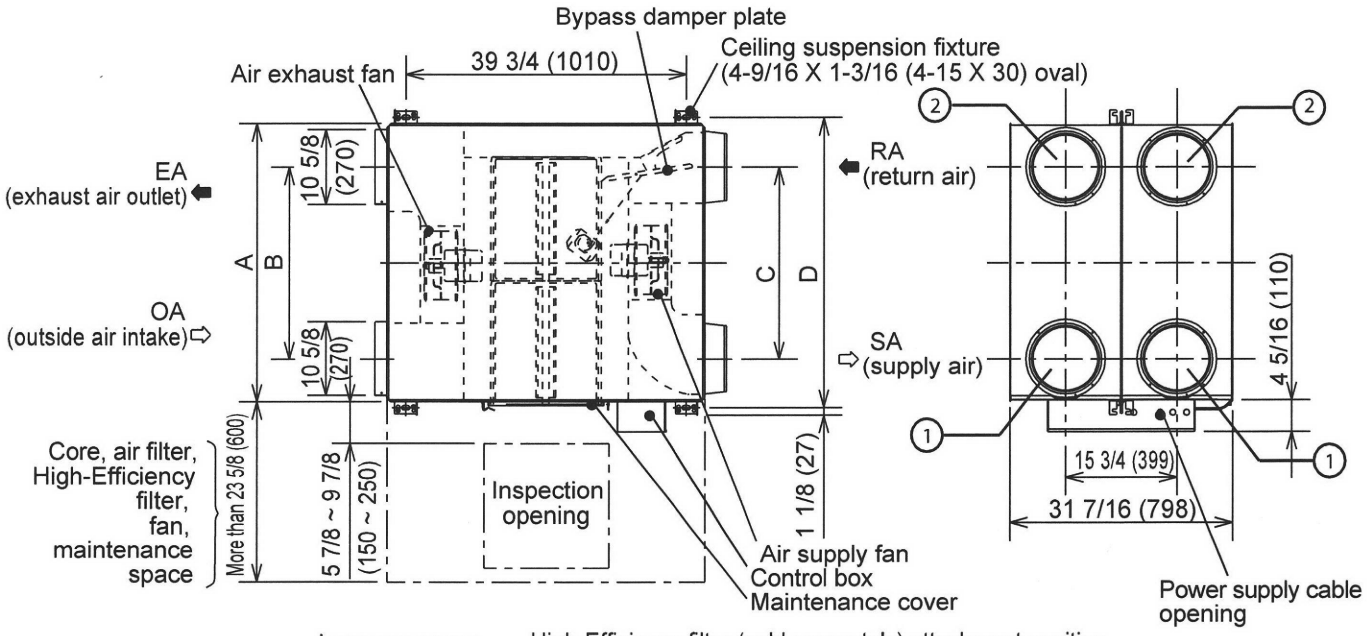
Entering Air Temperature Operation Range
14° F to 104° F (-10° C to 40° C), RH 80% or less

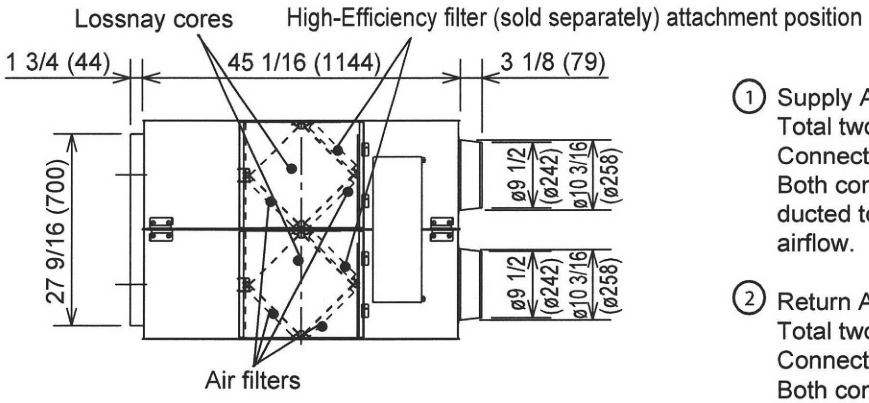
Sound Pressure Level (fan speed: low - high - extra high)
@ 208V . . . . . 29 - 36 - 38 dB (A)
@ 230V . . . . . 32 - 39 - 40.5 dB (A)

Notes:

Specifications are subject to change without notice.
© 2013 Mitsubishi Electric US, Inc.

Model: LGH-F1200RX5-E – DIMENSIONS





① Supply Air Connection. Total two (2) Supply Air Connections on this unit. Both connection must be ducted to achieve full airflow.

② Return Air Connection. Total two (2) Return Air Connections on this unit. Both connections must be ducted to achieve full airflow.

Unit: Inch (mm)

Model	A	B	C	D	Weight
LGH-F1200 RX5	48 1/2 (1231)	36 1/8 (917)	36 1/8 (917)	50 1/8 (1272)	265 lbs (120 kg)

AHRI CERTIFIED®
www.ahridirectory.org
Air-to-Air ERV
AHRI Standard 1060
Energy Recovery COMPONENT is certified. Actual performance in packaged equipment may vary.

UL®

MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

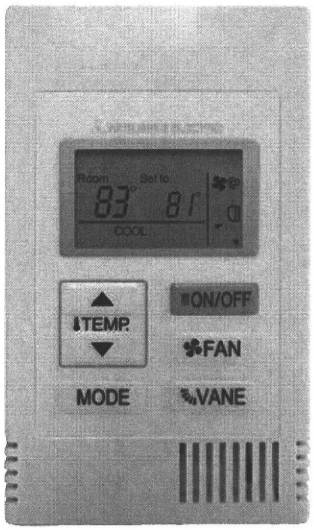
1340 Satellite Boulevard
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822
www.mehvac.com

FORM# LGH-F1200RX5 - 201306
Specifications are subject to change without notice.
© 2013 Mitsubishi Electric US, Inc.

CITY**MULTI**® Model: **PAC-YT53CRAU** MITSUBISHI ELECTRIC

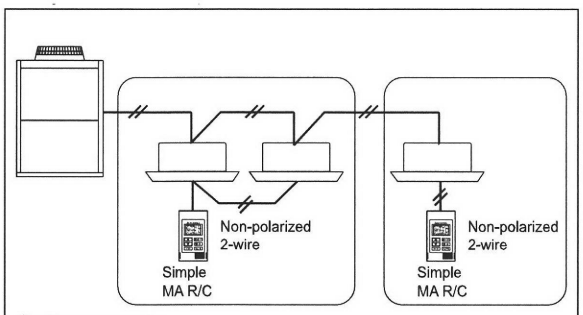
Job Name: Duniway

Schedule Reference: W/ ALL FC | Date:



SIMPLE MA REMOTE CONTROLLER (PAC-YT53CRAU) SPECIFICATIONS

- Controls group operation for up to 16 indoor units in a single group
- Supports both Fahrenheit and Celsius
- User defined functions:
  - ON/OFF
  - Operation mode: AUTO (R2-Series only), COOL, HEAT, FAN, DRYING, or SETBACK
  - Set temperature
  - Fan speed setting
  - Air flow direction
  - Set temperature range: 40˚F - 95˚F depending on operation mode and indoor unit connected.
- Set temperature range limit: Simple MA allowable set temperature range can be reduced for cool and heat modes.
- LOSSNAY: Simple MA for interlocked system can set high/low/Stop on LOSSNAY.
- Room temperature can be sensed either at the indoor unit (default) or at the remote controller.
- Diagnostics: Displays four-digit error code and error unit address.
- Grouping: Same group use only with other PAC-YT53CRAU Simple MA Controllers, PAR-21MAAU Deluxe MA Remote Controllers, and PAR-FL/A32MA Wireless MA Remote Controllers with up to two remote controllers per group.
- Addressing: No addressing required.
- Wiring: Uses two-wire, stranded, non-polar control wire for connecting TB15 connection terminal on the indoor unit. Requires crossover wiring for grouping across indoor units.
- Dimensions: 2-3/4 x 9/16 x 4-3/4" (70 x 14.5 x 120mm).



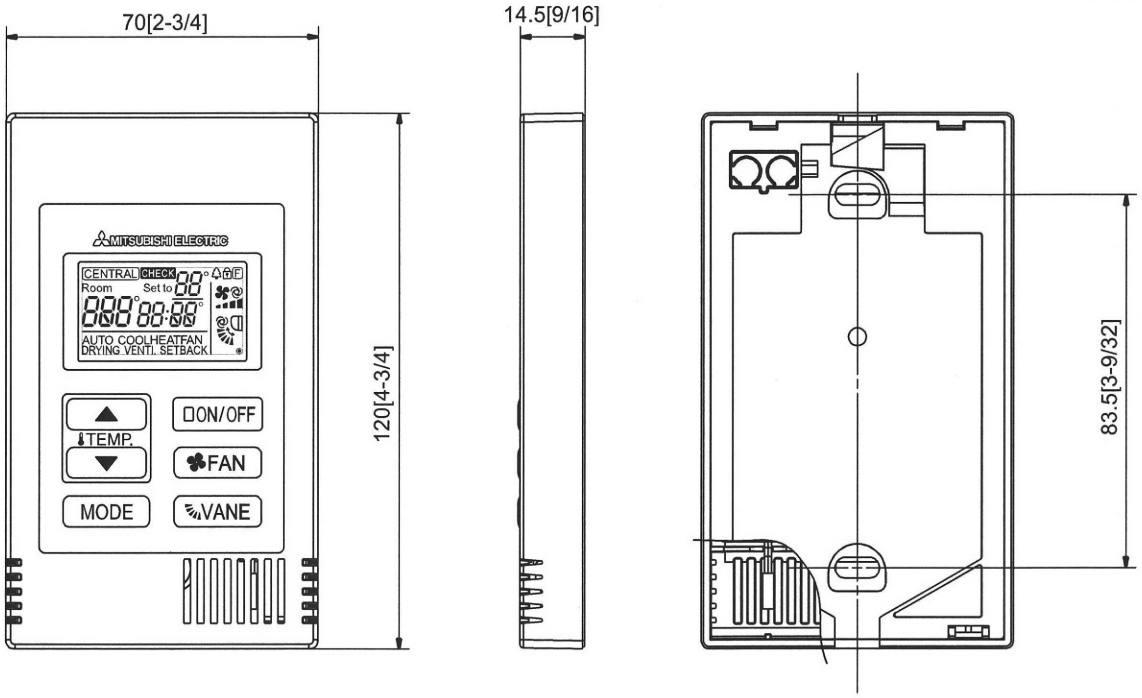
System example

Notes:

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Model: PAC-YT53CRAU – DIMENSIONS

Unit:mm[in.]



MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mitsubishipro.com

Specifications are subject to change without notice.

FORM# PAC-YT53CRAU - 201205

Specifications are subject to change without notice.

© 2012 Mitsubishi Electric & Electronics USA, Inc.

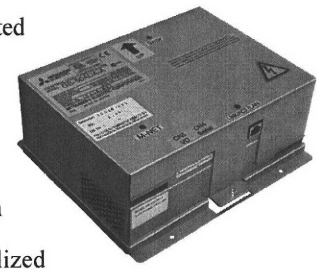
CITY MULTI® Model: GB-50ADA MITSUBISHI ELECTRIC

Job Name: Duniway Location:

Drawing Reference: Schedule No.

System No.: Date:

OVERVIEW OF CITY MULTI® CONTROLS NETWORK (CMCN)



- Consists of TG-2000 integrated system software, AG-150/ GB-50ADA/ GB-24/TC-24 centralized controllers, web browsers, timers, remote controllers, and BMS interfaces.
- TG-2000 integrated system software supports up to 40 AG-150/GB-50ADA centralized controllers (licensed for PC software features) for a maximum of 2,000 indoor units from a single PC.
- AG-150 centralized controller operates up to 50 indoor units with optional control via a field-supplied PC with licensed software.
- GB-50ADA centralized controller operates up to 50 indoor units via a field-supplied PC with licensed software.
- GB-24 central controller operates up to 24 indoor units via a field-supplied PC with licensed software.
- TC-24 standalone centralized controller operates up to 24 indoor units via an integral touch screen interface.
- Remote controllers consist of Deluxe MA, Simple MA Wireless MA, and ME.
- I/O controllers consist of DIDO (PAC-YG66DCA) and AI (PAC-YG63MCA) for third-party equipment control.
- LonWorks® and BACnet® interfaces also available.
- Interlocking of LOSSNAY® ERV units for control via the AG-150/GB-50ADA/GB-24/TC-24 centralized controllers.

GB-50ADA STANDARD PACKAGE

- GB-50ADA Centralized Controller
- Integrated Power Supply
- SW-Mon: PC Monitoring
- SW-Sch: PC Scheduling
- SW-Email: Online Error Email
- SW-Maint: Online Maintenance Tool
- SW-TG2000: TG-2000 Software

OPTIONAL SOFTWARE

- **SW-Charge:** Tenant Billing
- **SW-PWeb:** Online Personal Browser

SOFTWARE FEATURES (Pre-licensed)

- **SW-Mon:** PC Monitoring enables building manager to customize and operate all indoor units from a network PC's web browser for up to 50 units per AG-150/ GB-50ADA/GB-24.
- **SW-Sch:** PC Scheduling enables building manager to customize daily, weekly, and annual schedules from a network PC's web browser for up to 50 units per AG-150/GB-50ADA/GB-24. Schedules can be applied to a single indoor unit, a group of indoor units, or collectively (batch) to all indoor units controlled by the AG-150/GB-50ADA/GB-24.
- **SW-Email:** Online Error Email Distribution for when an error occurs on the CITY MULTI system monitored by the AG-150/GB-50ADA/GB-24. The fault will be detected and a detailed alert will be sent via email to the necessary personnel.
- **SW-Maint:** Online Maintenance Tool software performs maintenance diagnostics via network PC and AG-150/ GB-50ADA/GB-24 Centralized Controller. Does not require CMS-MNF-B converter/cable.
- **SW-TG-2000:** TG-2000 Integrated System Software enables the building manager to control up to 40 AG-150/ GB-50ADA Centralized Controllers with a maximum of 2,000 indoor units across multiple CITY MULTI outdoor units. Requires a dedicated networked PC and AG-150/ GB-50ADA software licenses (per AG-150/GB-50ADA per function).

OPTIONAL SOFTWARE FEATURES

- **SW-Charge:** Tenant "Charge" Billing calculates per tenant CITY MULTI energy usage in kWh and in monetary amount based on the energy consumption of the outdoor unit(s) divided among the associated indoor units. Requires TG-2000 software on a dedicated network PC connected to RS-485 Watt Hour Meters (WHM).
- **SW-Pweb:** Online Personal Web Browser allows individual user (up to 50) to control his/her zone conditioning via personal networked PC with or without a remote controller.

GB-50ADA CONTROLLER SPECIFICATIONS

- Manages up to 50 indoor units. Units can be controlled individually, in a group or in a collective batch operation.
- Monitoring and Operation mode selection (Cool, Heat, Auto [R2-Series only], Dry, Fan), temperature setting and air flow direction.
- Scheduling: Supports daily, annual and a two pattern weekly seasonal schedule that can be scheduled for seasonal switch over. Supports scheduling fan speed and vane direction.
- Monitor/Control of I/O (AI and DIDO) controllers.
- 24 hour clock or 12 hour clock (AM/PM).
- SSL (Secure Socket Layer) Security protocol for network communications.
- Memory back up via USB (universal serial bus) port.
- RJ-45 100BASE-TX Ethernet port supports interconnection directly to PC or to Local Area Network (LAN), PC browser and TG-2000 software functions require Mitsubishi Electric HVAC issued software licenses.
- Permits or prohibits remote controller functions such as On/Off, Change Operation Mode and Set Temperature adjustment.
- Error code display with built in HELP Menu for troubleshooting and maintenance diagnostics.
- Requires manual addressing through initial settings browser to the M-NET communication bus (default address is 000.)
- External input/output signals can be used for batch operations such as Start/Stop and Emergency Stop.

Model: GB-50ADA

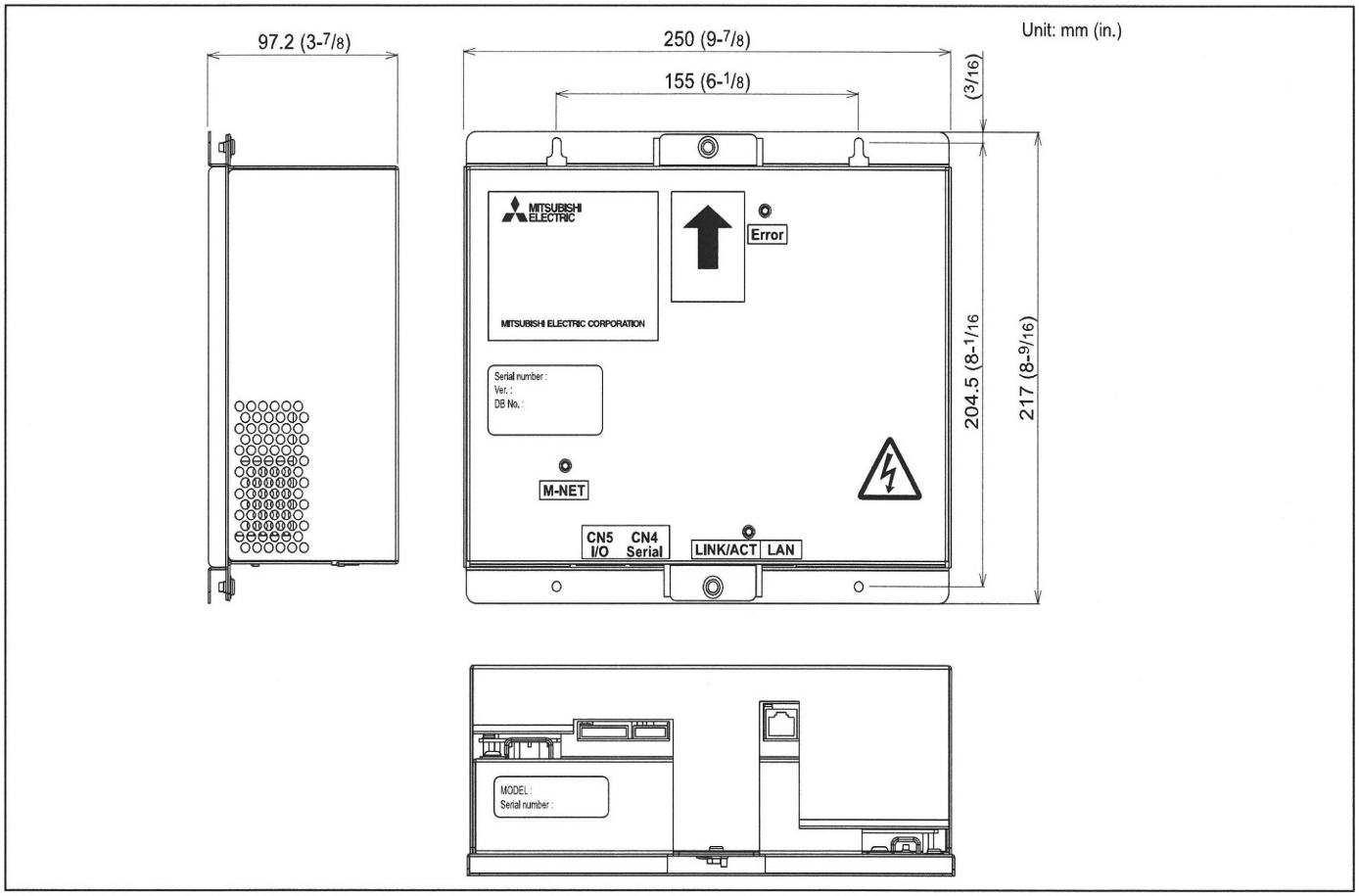
WEB BROWSER REQUIREMENTS

Item		Requirements
CPU		Pentium® 300MHz or faster
Memory		64MB or more (128MB or more recommended)
Screen Resolution		1024 x 768 or higher recommended
Compatible Browser	**Windows®**	Microsoft® Internet Explorer 6.0 or later (Note: Java® execution environment is required [Sun Microsysems® Java Plug-in Ver. 1.6.0 or later]. Check the Sun Microsystems Java Plug-in version in "Java" in the control panel).
	Macintosh®	Safari® (with Mac® OS X) (Note: Java execution environment is required [Sun Microsystems Java Plug-in Ver. 1.4.2 or later; can download from Apple® Computer's homepage.]. Check the Sun Microsystems Java Plug-in version at the [Help]-[Installed Plug-ins] on the Safari browser.)
Onboard LAN Port or LAN Card		One connector (100BASE-TX)
Other		Pointing device such as a mouse.

TG-2000 REQUIREMENTS

Item		Requirements	Recommendations/Notes
When in use with GB-50ADA		TG-2000 Version 5.50 or later (purchase the option or use equipment recommended when purchasing the PC); OS: Windows Vista® / XP	
PC		PC/AT Interchangeable Machine	Dell®, IBM®, Compaq®
CPU		Core™ 2 Duo: 1.66GHz or faster (Windows Vista for Core 2 Duo) Pentium® M: 1.7GHz or faster Pentium® IV: 2.4Ghz or faster	Core 2 Duo: 2.4GHz or faster Pentium M: 2.0GHz or faster Pentium® IV 2.8GHz or faster
OS		Windows Vista® Business Service Pack 1 Windows XP Professional Service Pack 3 Windows 2000 Professional Service Pack 4	English version only. Computer must support each OS. Correct Service Pack version must be installed; if not, TG-2000 will not be set up properly.
Memory		Windows Vista: 1GB or more Windows XP®/ 2000: 512MB or more	Windows Vista: 2GB or more Windows XP / 2000: 1GB or more
HDD	Standard	6GB or more (2GB or more of C-drive free space necessary)	40GB or more of C-drive free space recommended. When using the trend function, the drive used for automatic control must have the following free space according to the number of groups: 200 groups = 2GB; 500 groups = 5GB; 1,000 groups = 10GB; 2,000 groups = 20GB.
	Wide Area	20GB or more (Free space)	Standard: Max. 200MB/site
Serial Port		One port or more	Required when using RS-485 communication for WHM
LAN		10Base-T/100Base-TX	Purchase the option, or use the equipment recommended for the computer when purchasing.
Modem		56K modem or TA	Required for wide area mode for TG-2000
USB		Two ports or more	For use in data backup
Storage Device		CD, USB, etc.	Optional
Resolution		1024 x 768 or higher, 65,536 colors or more	
Other		Computer must be dedicated for use of TG-2000. Requires constant 24-hour operation, Requires UPS.	Requires constant 24-hour operation.

Model: GB-50ADA



Items	Specifications		
Power Source	Rated Input	100-240 V AC ±10% 0.4-0.3 A 50/60 Hz	
	Fuse	250V AC 3.15 A Time-delay type (IEC127-2 S.S.5)	
Interface	Rated Output of the Power Supply to M-NET Transmission Lines	22 - 30 V DC	
	LAN	10Base-T or 100Base-TX	
	USB	USB 1.1 Supported	
Environmental Conditions	Temperature	Operating Range	14° - 131°F (-10° -55°C)
		Storage Range	-4° - +140°F (-20° - +60°C)
	Humidity	30-90% RH (no condensation)	
Dimensions	8-9/16" H x 9-7/8" W x 3-7/8" D (217 x 250 x 97 mm)		
Weight	5-3/4 lbs. (2.6 kg)		
Installation Environment	Indoor installation in field-supplied control panel (sold separately).		

Certificate Number FM33568

Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air conditioning equipment.

ISO Authorization System
The ISO 9000 series is a plant authorization system relating to quality warranties as stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.

Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).

Certificate Number EC97J1227

C SD -GB-50ADA - 1 - 201008 © MITSUBISHI ELECTRIC / HVAC 2010

MITSUBISHI ELECTRIC

HVAC Advanced Products Division
Mitsubishi Electric & Electronics USA, Inc.

3400 Lawrenceville Suwanee Rd.
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#4)
www.mehvac.com

Specifications are subject to change without notice.

CITY MULTI®

FBM Series Filter Boxes

Manufactured for MITSUBISHI ELECTRIC & ELECTRONICS, USA.

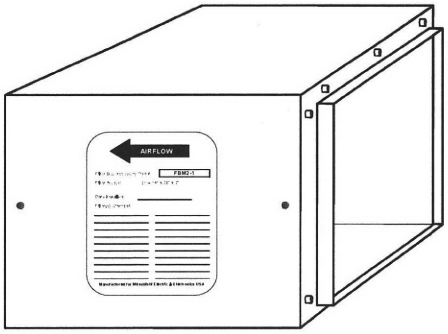
CITY MULTI® PEFY-P-NMAU-E2 MEDIUM-STATIC INDOOR UNITS

MITSUBISHI ELECTRIC

Job Name:	
Schedule Reference:	Date:

GENERAL FEATURES

- 2" pleated MERV 13 filter(s)
  - Tested in accordance with ANSI/ASHRAE 52.2 Standard
  - Rated Class 2 under U.L. Standard 900
- Construction:
  - Non-insulated 20 guage G-60 galvanized steel
  - Knurled thrumb screws on access door Cabinet
  - Foam gasket (complies with UL 723)
  - Screw through cabinet design
  - Return connection convertable from rear to bottom of unit
  - Maintenance Schedule record on door

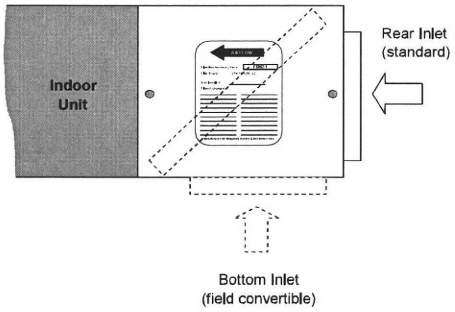


SPECIFICATIONS

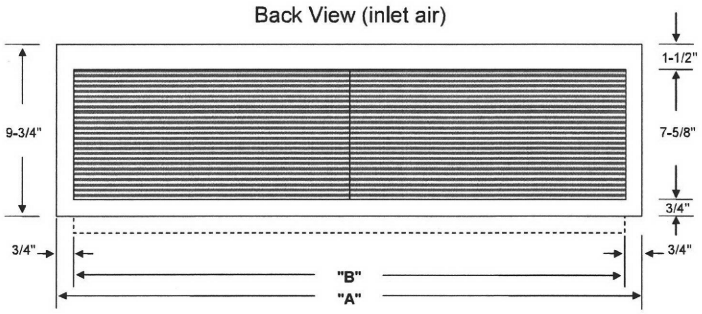
Part Number	Use on CITY MULTI Models	Filters Included	Ship Weight (lbs.)	Net Weight (lbs.)
FBM0612	PEFY-P06, P08, P12-NMAU-E2	(1) - 14" x 25" x 2"	22	20
FBM1518	PEFY-P15, P18-NMAU-E2	(1) - 14" x 20" x 2" (1) - 14" x 14" x 2"	28	26
FBM2430	PEFY-P24, P27, P30-NMAU-E2	(2) - 14" x 20" x 2"	35	32
FBM3648	PEFY-P36, P48-NMAU-E2	(2) - 14" x 20" x 2" (1) - 14" x 14" x 2"	44	41
FBM54	PEFY-P54-NMAU-E2	(3) - 14" x 20" x 2"	50	46

EXTERNAL DIMENSIONS

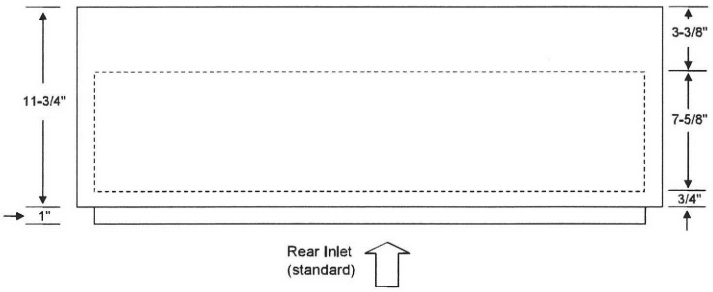
End View



Back View (inlet air)



Top View

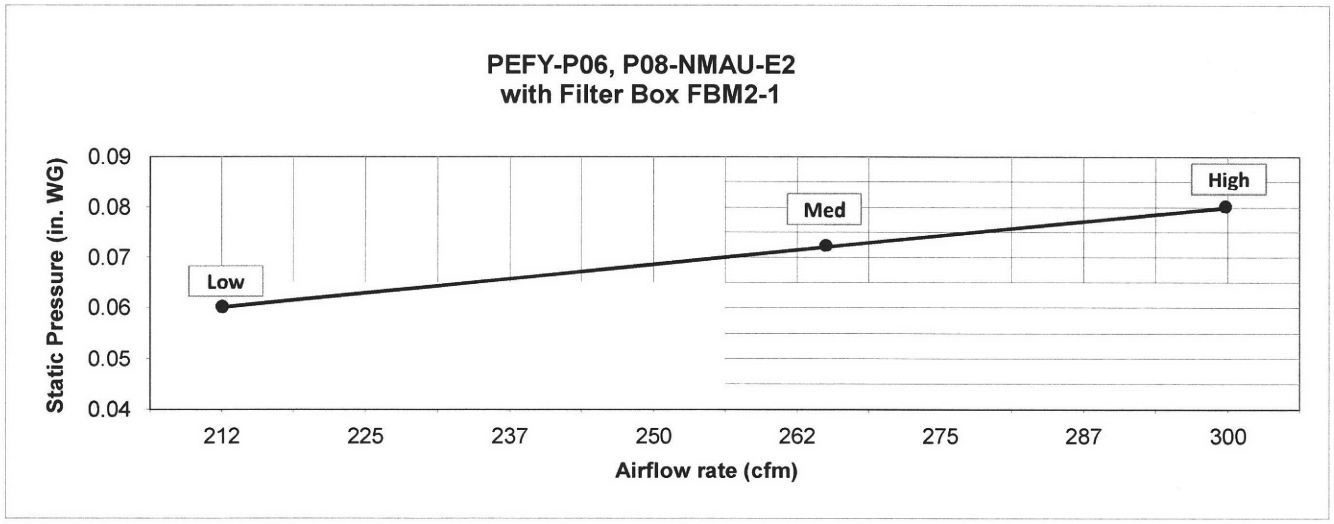


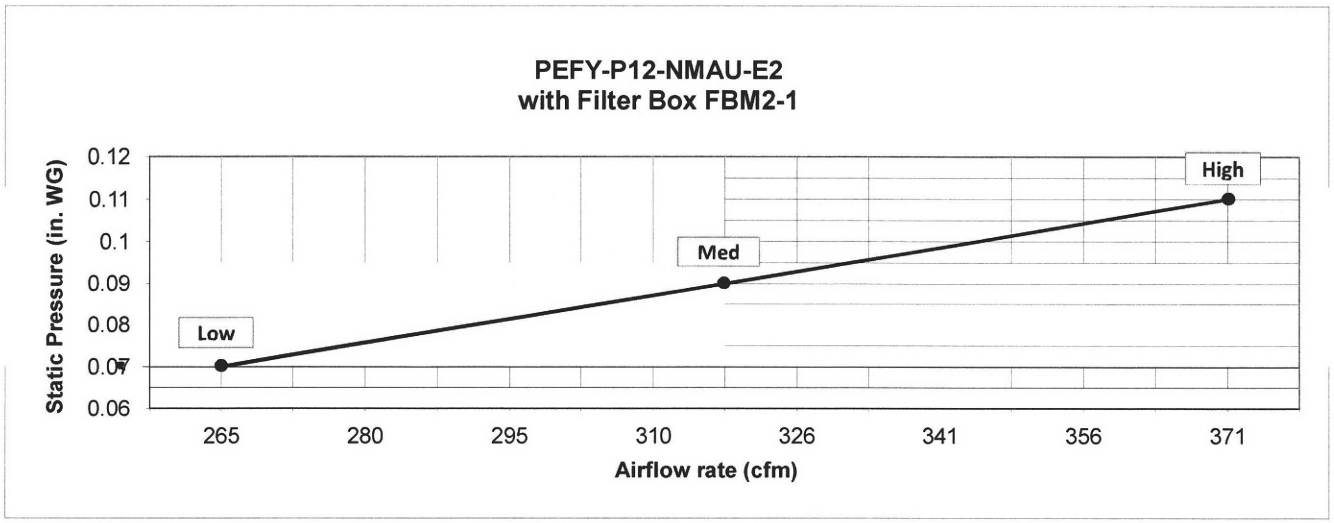
Model	"A"	"B"
FBM2-1	27-9/16"	26-1/16"
FBM2-2	35-7/16"	33-15/16"
FBM2-3	43-1/4"	41-3/4"
FBM2-4	55-1/8"	53-5/8"
FBM2-5	63"	61-1/2"

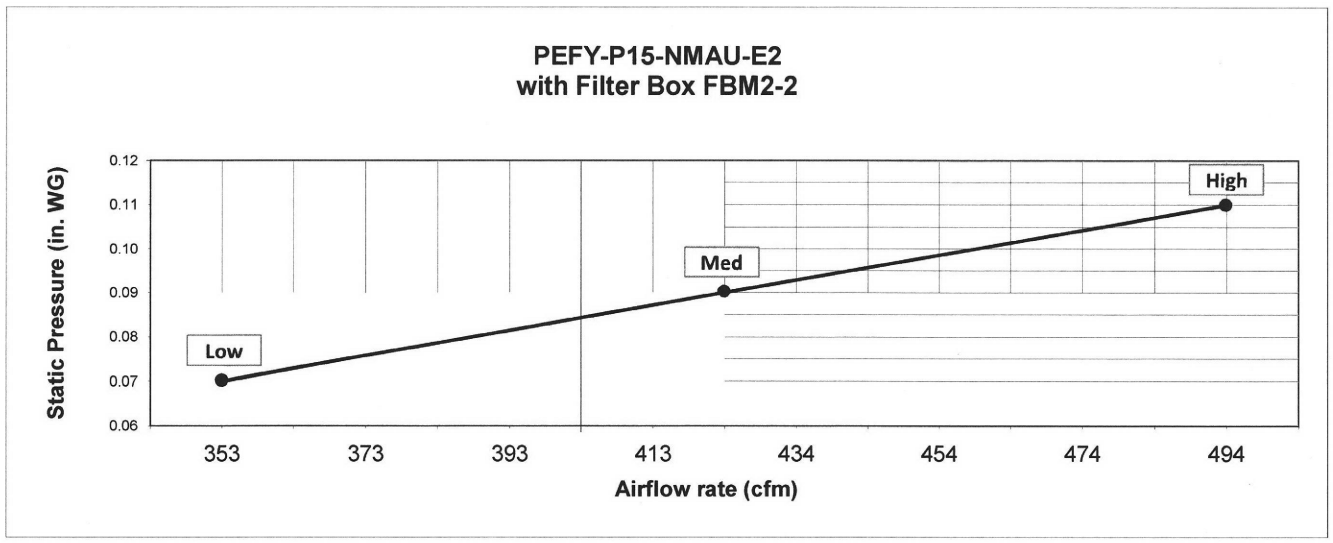
Specifications are subject to change without notice.

© 2012 Mitsubishi Electric & Electronics USA, Inc.

Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed

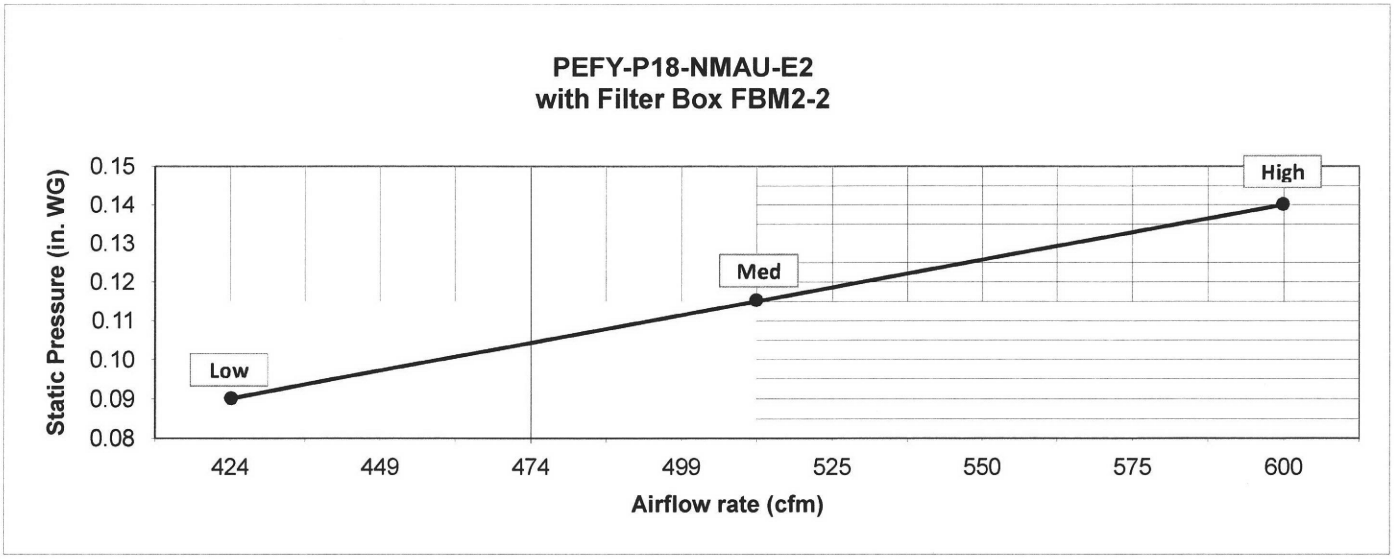


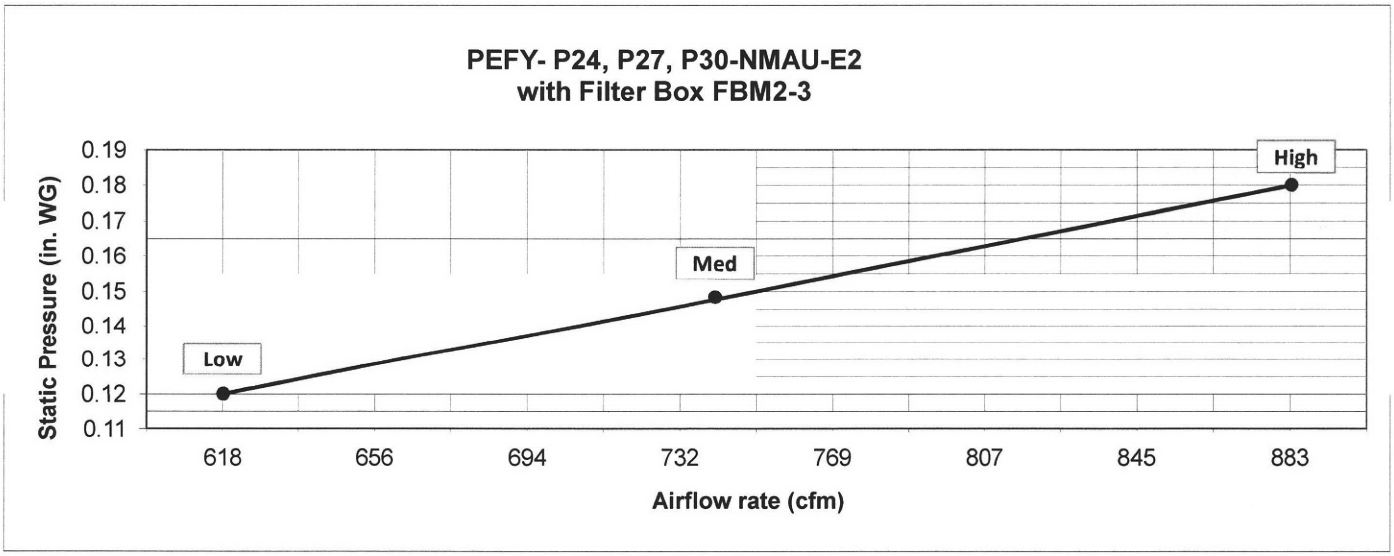


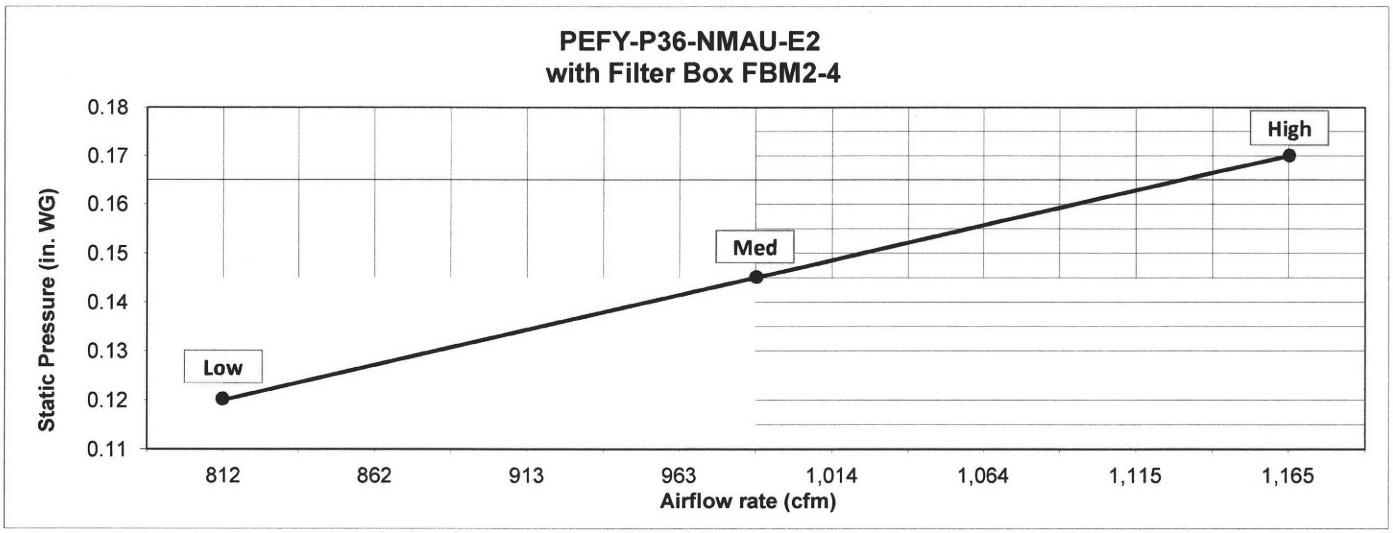


Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.

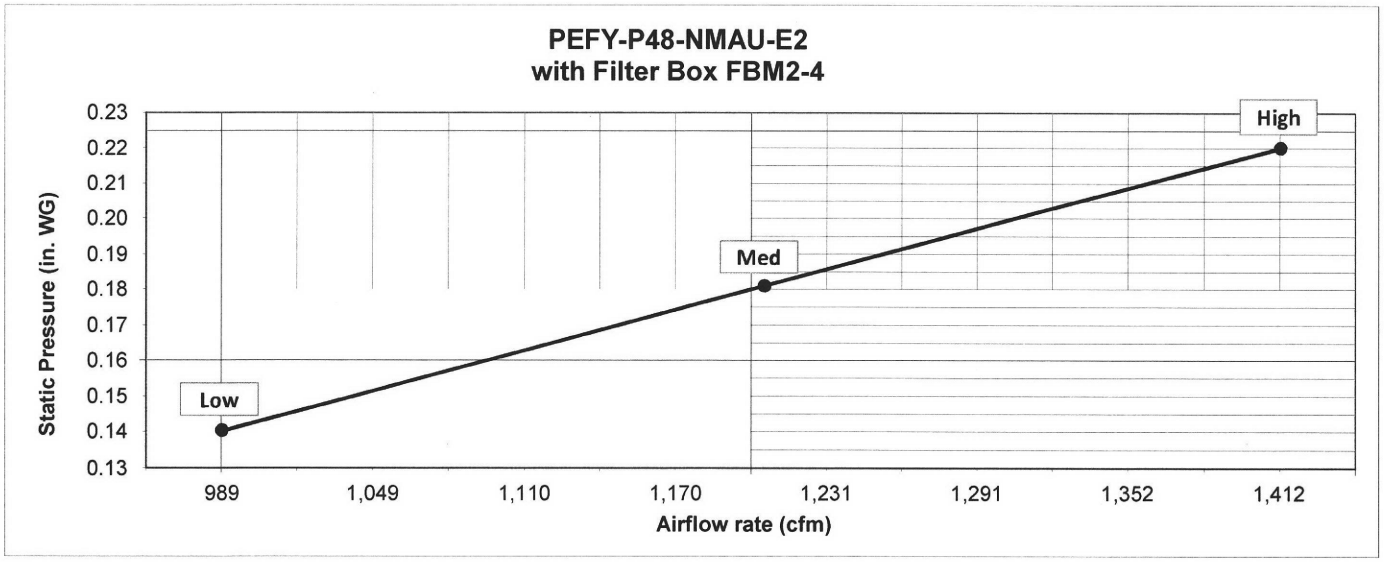


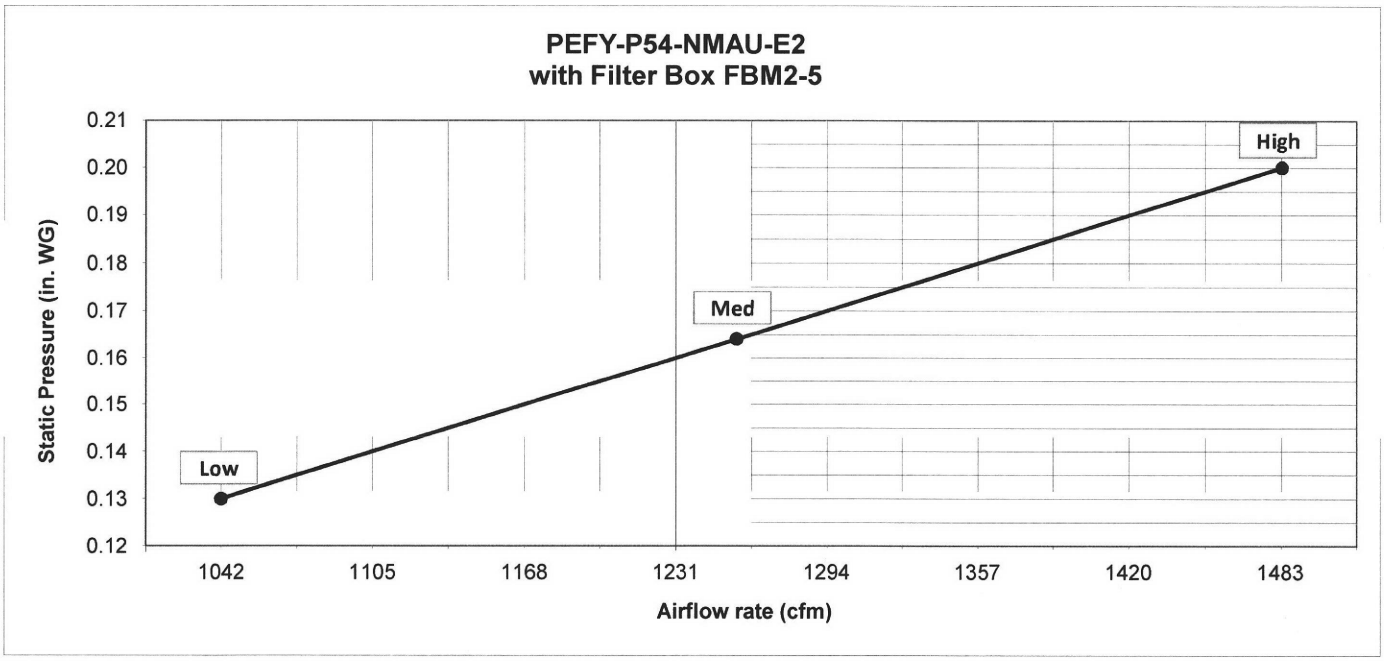




Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.

Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.





Manufactured for

MITSUBISHI ELECTRIC
COOLING & HEATING
Live Better

3400 Lawrenceville Suwanee Rd
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822 (#3)
www.mehvac.com

Specifications are subject to change without notice.

Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.