

AIRTEMP INC.
MECHANICAL CONTRACTORS
20 THOMAS DRIVE
WESTBROOK, MAINE 04092
207-774-2300
207-874-2383 FAX

A COMFORT SYSTEMS USA COMPANY
QUALITY PEOPLE – BUILDING SOLUTIONS

SUBMITTAL

JOB: PAYSON SMITH 3RD FLOOR RENOVATIONS
DATE: 9/21/17
LOCATION: 96 FALMOUTH STREET, PORTLAND
MECHANICAL CONTRACTOR: AIRTEMP INC.
ENGINEER: MECHANICAL SYSTEMS ENGINEERS
AIRTEMP JOB NUMBER: 925

AIRTEMP IS PLEASED TO SUBMIT THE FOLLOWING ITEM(S) FOR APPROVAL:

HEAT PUMPS

PLEASE RETURN .PDF OF REVIEWED SUBMITTAL TO US



Submittal Transmittal

Submittal # 1-001

To:	Airtemp
From:	Homans Associates 250 Ballardvale Street Wilmington, MA 01887

Date:	9-21-17
Transmitted By:	Kevin Faria
Copied To:	Nick St. Ours

Project	Payson Smith Hall 3rd Floor Renovations University of Southern Maine	Architect	
Order #		Engineer	
Purchaser			

Submittal Name: **Equipment List**

Submitted For :	Via:	The Following:
<input checked="" type="checkbox"/> Approval/Action <input type="checkbox"/> Information <input type="checkbox"/> Distribution <input type="checkbox"/> Record <input type="checkbox"/> Revised/Resubmit	<input type="checkbox"/> Overnight Delivery <input type="checkbox"/> Mail <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Courier <input type="checkbox"/> Fax <input type="checkbox"/> Other	<input type="checkbox"/> Drawings <input type="checkbox"/> Specifications <input type="checkbox"/> Digital Files <input checked="" type="checkbox"/> Submittals <input type="checkbox"/> O & M Manuals <input type="checkbox"/> Other

Includes the following:

Unit Tag #	Model	Description	Format	Item Action	QTY:
OU-1,2	PUMY-P36NKMU1	S-Series Outdoor Unit	PDF	For Approval	2
IU-1,2,3,5,7	PMFY-P06NBMU-ER5	1-Way Ceiling-recessed Cassette w/ Grille	PDF	For Approval	5
IU-4,6,8	PMFY-P08NBMU-ER5	1-Way Ceiling-recessed Cassette w/ Grille	PDF	For Approval	3
IU-9	PKA-A24KA7	Wall Mounted	PDF	For Approval	1
OU-3	PUY-A24NHA7	Single Zone Cooling Only			1
IU UNITS	PAC-YT53CRAU-J	Simple MA Remote Controller	PDF	For Approval	9
	EW-50A	Centralized Controller	PDF	For Approval	1
OU-3	PAC-SF83MA-E	M-NET Converter for P-Series	PDF	For Approval	1
	SW-BACnet	BACnet Software License	PDF	For Approval	1
IU-9	ASP-MW-UNI	Condensate Pump	PDF	For Approval	1

OU-1,2	WB-PA3	Wind Baffle (1 Piece) for ALL NEW PUMY "K" MODELS	PDF	For Approval	4
OU-3	WB-PA5	Front Wind Baffle (1 piece)	PDF	For Approval	1
OU-1,2	WB-RE5	Rear Wind Baffle (1 piece)	PDF	For Approval	1
OU-1,2	WB-SD5	Side Wind Baffle (1 piece)	PDF	For Approval	1
OU-3	QSMS1801	Quick-Sling Stand	PDF	For Approval	1
OU-1,2	QSMS1802	Quick-Sling Stand	PDF	For Approval	2
	Equipment Schedules	Outdoor Units	PDF	For Approval	1
	Equipment Schedules	Indoor Units	PDF	For Approval	1
	System Schematic	Riser Diagram	PDF	For Approval	1

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference: OU-1,2

Date: 9-21-17



OUTDOOR VRF SYSTEM

UNIT OPTION

- Standard Model..... PUMY-P36NKMU1
- Seacoast (BS) model PUMY-P36NKMU1-BS

ACCESSORIES

- Joint Kit For details see Pipe Accessories Submittal
 - Header Kit For details see Pipe Accessories Submittal
 - Air Outlet Guide (One Piece)**..... PAC-SH96SG-E
 - Front Wind Baffle (One Piece)**..... WB-PA3
 - Drain Pan..... PAC-SH97DP-E
 - Drain Socket..... PAC-SG61DS-E
 - Base Pan Heater..... PAC-SJ20BH-E
- **PUMY requires two outlet guides and wind baffles for installation.

Specifications		Model Name
Unit Type		PUMY-P36NKMU1 (-BS)
Nominal Cooling Capacity (208/230V) ^{*1}	Btu/h	36,000
Nominal Heating Capacity (208/230V) ^{*2}	Btu/h	42,000
Operating Temperature Range	Cooling (Outdoor)	5° to 115° F (-15 to +46° C) DB ^{*3 *4}
	Heating (Outdoor)	-13° to +59° F (-25° to +15.0° C) WB
External Dimensions (H x W x D)	In. / mm	52-11/16 x 41-11/32 x 13 (+1) / 1338 x 1050 x 330 (+25)
Net Weight	Lbs. / kg	269 / 122
External Finish		Galvanized steel sheets (+powder coating for -BS type)
Electrical Power Requirements	Voltage, Phase, Hertz	208/230V, 1-Phase, 60Hz
Minimum Circuit Ampacity (MCA)	A	31
Maximum Overcurrent Protection (MOP)	A	44
Recommended Fuse Size	A	40
Piping Diameter (Flare) In. / mm	Liquid (High Pressure)	3/8 / 9.52
	Gas (Low Pressure)	5/8 / 15.88
Indoor Unit	Total Capacity	50% to 130% of outdoor unit capacity
	Model / Quantity	P6 to 36 / 1 to 7
Fan Type x Quantity		Propeller fan x 2
Fan Motor Output	kW	0.074 + 0.074 (two fan motors)
Airflow Rate	CFM	3,885
Compressor Operating Range	Cooling	29% to 100%
	Heating	24% to 100%
Compressor Type x Quantity		INVERTER-driven Scroll Hermetic x 1
Compressor Motor Output	kW	2.8
Sound Pressure Level	Cooling	49
	Heating	53
Refrigerant		R410A; 10 lbs. + 9 oz. (4.8 kg)
Lubricant		FV50S (2.3 liters)
Protection Devices	High Pressure	High pressure sensor, High pressure switch 601 psi (4.15 MPa)
	Inverter Circuit	Over-heat protection, Over-current protection
	Compressor	Discharge thermo protection, Over-current protection
AHRI Ratings (Ducted/Non-Ducted)	EER	12.6 / 14.2
	SEER	15.6 / 21.0
	COP	3.6 / 3.9
	HSPF	10.5 / 11.5

*1 Cooling | Indoor: 80° F (26.7° C) DB / 67° F (19° C) WB; Outdoor: 95° F (35° C) DB

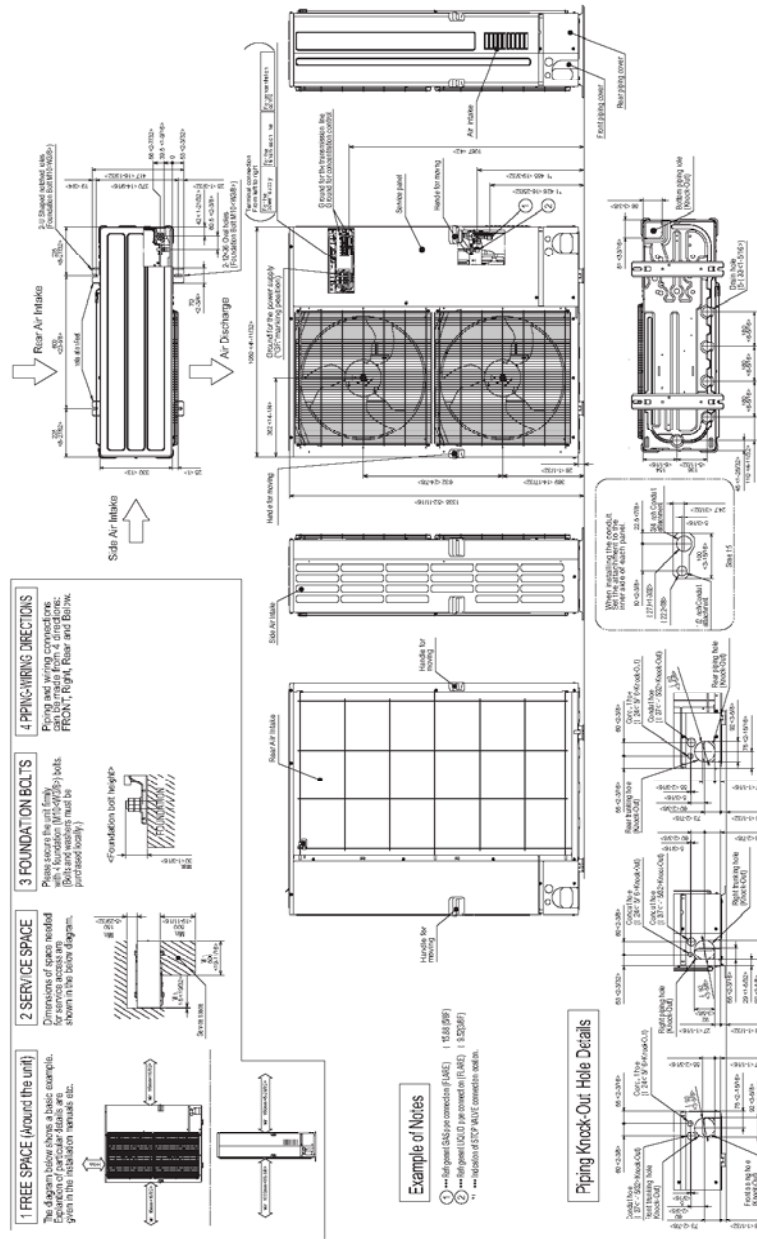
*2 Heating | Indoor: 70° F (21.1° C) DB, Outdoor 47° F (8.3° C) DB / 43° F (6° C) WB

*3 When using Wind Baffles [WB-PA3], the minimum operating range is 5° F. Without Wind Baffles, the minimum operating range is 23° F.

*4 When connecting PKFY-P06NBMU/P08NHMU, PFFY-P06/08/12NEMU or PFFY-P06/08/12NRMU indoor units, the minimum operating range is 50° F.

Model:PUMY-P36NKMU1 (-BS)- DIMENSIONS

Unit: mm
<in>



NOTES

Blue Fin Anti-corrosion Protection:
Cellulose- and polyurethane-resin coating treatment applied to condenser coil that protects it from air contaminants.
Standard: $\geq 1\mu\text{m}$ thick; Salt Spray Test Method - no unusual rust development to 960 hours.



1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com



Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

Schedule Reference: IU-1,2,3,5,7

Date: 9-21-17



GENERAL FEATURES

- Dual set point functionality
- Lightweight and compact design
- Four-speed fan settings
- Built-in condensate lift mechanism
- Ventilation air intake supported

OPTIONS

- CN24 Relay Kit.....CN24RELAY-KIT-CM3

* 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 | 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

SPECIFICATIONS

Capacity*

Cooling6,000 Btu/h
 Heating6,700 Btu/h

Power

Power Source208 / 230V, 1 phase, 60Hz

Power Consumption

Cooling 0.04 kW
 Heating 0.04 kW

Current

Cooling 0.20 A
 Heating 0.20 A
 Minimum Circuit Ampacity (MCA)0.25 A
 Maximum Overcurrent Protection (MOCP)15 A

External FinishGrille: 6.4Y 8.9/0.4

Dimensions

Inches9-1/16 h x 31-31/32 w x 15-9/16 d
 mm230 h x 812 w x 395 d

Grille

Inches1-3/16" h x 39-3/8" w x 18-17/32" d
 mm30 h x 1000 w x 470 d

Net Weight

Unit31 lb / 14 kg
 Grille7 lb / 3 kg

Coil TypeCross fin

Fan

Type x QuantityLine flow fan x 1
 Airflow Rate (Low-Mid1-Mid2-High) ...230-254-283-307 CFM
 Motor TypeDC brushless motor

Air FilterPP honeycomb

Refrigerant Pipe Dimensions

Liquid1/4" / 6.35 mm flare
 Gas1/2" / 12.7 mm flare

Drainpipe DimensionO.D. 1" / 26 mm

Sound Level (Low - Mid1- Mid2- High)27 - 30 -33 -35 dB (A)

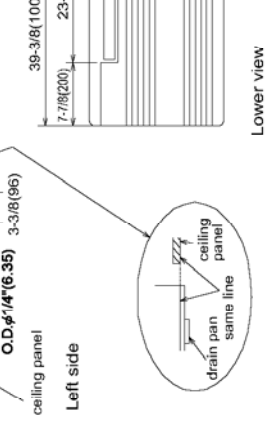
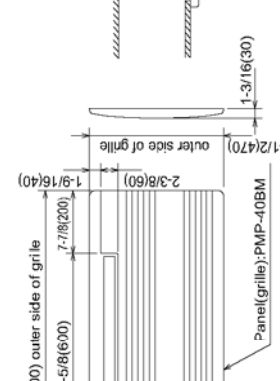
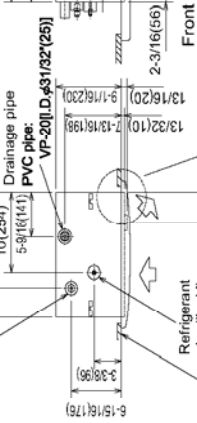
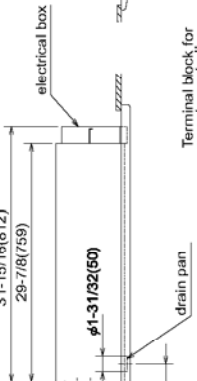
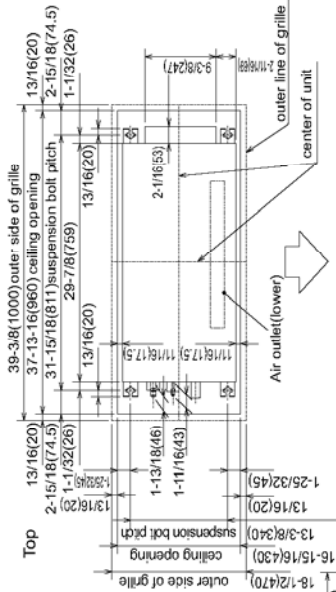
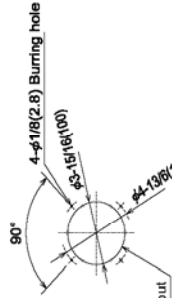
Notes:



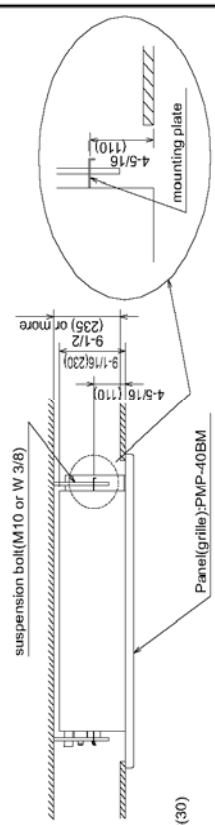
Model: PMFY-P06NBMU-ER5 – DIMENSIONS

Refrigerant piping	Pipe cover	O.D. ϕ 1-11/16" (44.3)
Drainage piping	Liquid pipe	O.D. ϕ 1/4" (6.35)
	Gas pipe	O.D. ϕ 1/2" (12.7)
	PVC pipe: I.D. 1-1/32" (26)	

Detail drawing of ventilation air intake hole



Installation space required around indoor unit



FORM# PMFY-P06NBMU-ER5 - 201207
Specifications are subject to change without notice.
© 2012 Mitsubishi Electric & Electronics USA, Inc.



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

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

Schedule Reference: IU-4,6,8

Date: 9-21-17



GENERAL FEATURES

- Dual set point functionality
- Lightweight and compact design
- Four-speed fan settings
- Built-in condensate lift mechanism
- Ventilation air intake supported

OPTIONS

- CN24 Relay Kit.....CN24RELAY-KIT-CM3

* 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 | 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

SPECIFICATIONS

Capacity*

Cooling8,000 Btu/h
 Heating9,000 Btu/h

Power

Power Source208 / 230V, 1 phase, 60Hz

Power Consumption

Cooling0.04 kW
 Heating0.04 kW

Current

Cooling0.20 A
 Heating0.20 A
 Minimum Circuit Ampacity (MCA)0.25 A
 Maximum Overcurrent Protection (MOCP)15 A

External Finish Grille: 6.4Y 8.9/0.4

Dimensions

Inches9-1/16 h x 31-31/32 w x 15-9/16 d
 mm230 h x 812 w x 395 d

Grille

Inches1-3/16" h x 39-3/8" w x 18-17/32" d
 mm30 h x 1000 w x 470 d

Net Weight

Unit31 lb / 14 kg
 Grille7 lb / 3 kg

Coil Type

.....Cross fin

Fan

Type x QuantityLine flow fan x 1
 Airflow Rate (Low-Mid1-Mid2-High)258-283-304-328 CFM
 Motor TypeDC brushless motor

Air Filter

.....PP honeycomb

Refrigerant Pipe Dimensions

Liquid1/4" / 6.35 mm flare
 Gas1/2" / 12.7 mm flare

Drainpipe DimensionO.D. 1" / 26 mm

Sound Level (Low - Mid1- Mid2- High)32-34-36-37 dB (A)

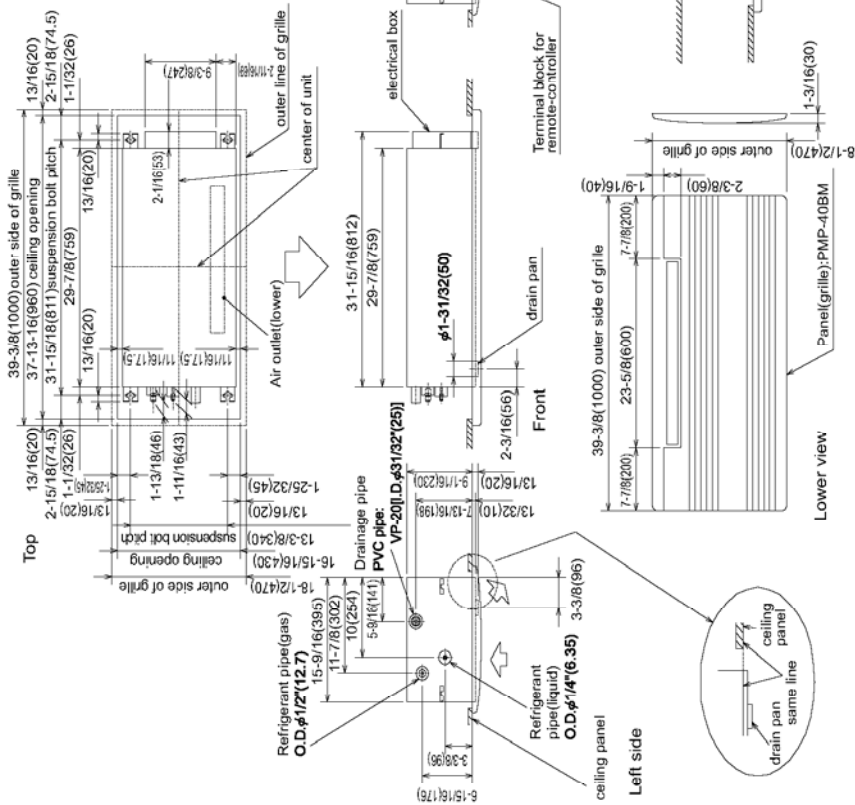
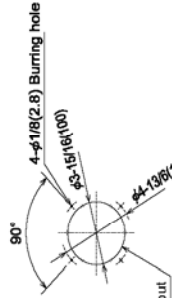
Notes:



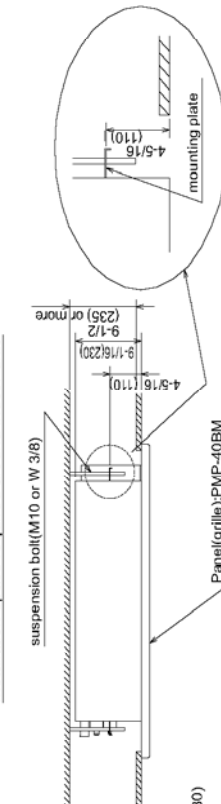
Model: PMFY-P08NBMU-ER5 – DIMENSIONS

Refrigerant piping	Pipe cover	O.D. ϕ 1-11/16" (44.3)
Drainage piping	Liquid pipe	O.D. ϕ 1/4" (6.35)
	Gas pipe	O.D. ϕ 1/2" (12.7)
	PVC pipe: I.D.	1-1/32" (26)

Detail drawing of ventilation air intake hole



Installation space required around indoor unit



FORM# PMFY-P08NBMU-ER5 - 201207

Specifications are subject to change without notice.
© 2012 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.mitsubishipro.com
Specifications are subject to change without notice.

Job Name: **Payson Smith Hall 3rd Floor Renovations University of Southern Maine**

System Reference: |U-9, OU-3

Date: **9-21-17**

Indoor Unit:

PKA-A24KA7



Outdoor Unit:

 PUY-A24NHA7 PUY-A24NHA7-BS**INDOOR UNIT FEATURES**

- Sleek, compact design
- Simple installation
- Vane setting for air flow direction control
- Auto fan speed mode
- Ideal for spaces such as server rooms, daycare centers, classrooms, churches, small offices, and more

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Suction accumulator pre-charged with refrigerant volume for piping length up to 100 ft (70 ft. for A12/18/24/30)
- Low ambient cooling down to -20°F providing 100% capacity (only for PUY models with wind baffles installed)
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart due to bypass valve make it ideal for equipment cooling applications, such as data centers
- Superior energy and operational efficiency

SPECIFICATIONS: PKA-A24KA7 & PUY-A24NHA7(-BS)

Model number	Indoor unit		PKA-A24KA7
	Outdoor unit		PUY-A24NHA7
			PUY-A24NHA7-BS
Cooling*1	Maximum Capacity	Btu/h	24,000
	Rated Capacity	Btu/h	24,000
	Minimum Capacity	Btu/h	10,000
	Maximum Power Input	W	1,960
	Rated Power Input	W	1,960
	Moisture Removal	Pints/h	5
	Sensible Heat Factor		1
	Power factor	%	96
Efficiency	SEER		21
	EER *1		12
Electrical	Voltage, Phase, Frequency		208 / 230V, 1-phase, 60 Hz
	Guaranteed Voltage Range	V AC	187 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208V / 230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Voltage: Indoor - Remote controller	V DC	12
	Recommended Fuse/Breaker Size	A	25
	Recommended Wire Size (Indoor - Outdoor)	AWG	14
Indoor unit	MCA	A	1
	Fan Motor Full Load Amperage	A	0.36
	Fan Motor Output	W	56
	Airflow Rate, Dry	CFM	635-705-775
	Airflow Rate, Wet	CFM	570-635-700
	Sound Pressure Level	dB(A)	39-42-45
	Drain Pipe Size	In. (mm)	5/8 (16)
	Heat Exchanger Type		Plate fin coil
	External Finish Color		White Munsell 1.0Y 9.2/0.2
	Unit Dimensions	W: In. (mm)	46-1/16 (1170)
		D: In. (mm)	11-5/8 (295)
		H: In. (mm)	14-3/8 (365)
	Package Dimensions	W: In.	51
		D: In.	18-8/16
H: In.		14-4/16	
Unit Weight	Lbs. (kg)	46 (21)	

SPECIFICATIONS: PKA-A24KA7 & PUY-A24NHA7(-BS)

Model number	Indoor unit		PKA-A24KA7	
	Outdoor unit		PUY-A24NHA7	
			PUY-A24NHA7-BS	
	Package Weight	Lbs.	53	
Indoor unit operating temperature range	Cooling Intake Air Temp (Maximum / Minimum)	°F	90 DB, 73 WB / 66 DB, 59 WB	
	Heating Intake Air Temp (Maximum / Minimum)	°F	82 DB / 50 DB	
Outdoor unit	MCA	A	19	
	MOCP	A	26	
	Fan Motor Full Load Amperage	A	0.40	
	Fan Motor Output	W	86	
	Airflow Rate	CFM	1,940	
	Refrigerant Control		Electronic Expansion Valve	
	Defrost Method		Reverse Cycle	
	Heat Exchanger Type		Cross fin	
	Sound Pressure Level, Cooling*1	dB(A)	47	
	Sound Pressure Level, Heating*2	dB(A)	48	
	Compressor Type		INVERTER-driven twin rotary	
	Compressor Model		SNB172FVHM1	
	Compressor Rated Load Amps	A	7	
	Compressor Locked Rotor Amps	A	11	
	Compressor Oil Type // Charge	oz.	FV50S // 23	
	External Finish Color		Ivory Munsell 3Y 7.8/1.1	
	Base pan heater		n/a	
	Unit Dimensions	W: In. (mm)	37-13/32 (950)	
		D: In. (mm)	13 + 1-3/16 (330 + 30)	
		H: In. (mm)	37-1/8 (943)	
	Package Dimensions	W: In.	40-15/16	
		D: In.	17-11/16	
		H: In.	40-11/16	
Unit Weight	Lbs.	153 (69)		
Package Weight	Lbs.	112 (51)		
Outdoor unit operating temperature range	Cooling Intake Air Temp (Maximum / Minimum)	°F	115 DB / -20* DB	
	Heating Intake Air Temp (Maximum / Minimum)	°F	70 DB, 59 WB / -4 DB, -4 WB	

SPECIFICATIONS: PKA-A24KA7 & PUY-A24NHA7(-BS)

Model number	Indoor unit		PKA-A24KA7
	Outdoor unit		PUY-A24NHA7
			PUY-A24NHA7-BS
	Thermal Lock-out / Re-start Temperatures**	°F	-8 / -4 DB
Refrigerant	Type		R410A
	Charge	Lbs, oz	7 lbs, 11 oz
Piping	Gas Pipe Size O.D. (Flared)	In.(mm)	5/8 (15.88)
	Liquid Pipe Size O.D. (Flared)	In.(mm)	3/8 (9.52)
	Maximum Piping Length	Ft. (m)	225 (69)
	Maximum Height Difference	Ft. (m)	100 (30)
	Maximum Number of Bends		15

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	*1 Cooling (Indoor // Outdoor)	°F	80°F DB, 67°F WB // 95°F DB, 75°F WB
--	--------------------------------	----	--------------------------------------

Notes

*Wind baffles required to operate below 23°F DB in cooling mode. PUY with wind baffle: -20°F - 115°F.

**System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures

SEACOAST PROTECTION

External Outer Panel: Phosphate coating + Acrylic-Enamel coating

Fan Motor Support: Epoxy resin coating (at edge face)

Separator Assembly; Valve Bed: Epoxy resin coating (at edge face)

"Blue Fin" treatment is an anti-corrosion treatment that is applied to the condenser coil to protect it against airborne contaminants.

Notes:

ACCESSORIES: PKA-A24KA7 & PUY-A24NHA7(-BS)

PKA-A24KA7	
3-Pole Disconnect Switch (30A/600V/UL) [fits 2" X 4" utility box]	<input type="checkbox"/> TAZ-MS303
Drain Pan Level Sensor (Control for indoor unit shut off to prevent drain pan overflow)	<input type="checkbox"/> DPLS2
Advanced Blue Diamond Mini-Condensation pump w/ Reservoir & Sensor (110V)	<input type="checkbox"/> X87-711 - 110
Advanced Blue Diamond Mini-Condensation pump w/ Reservoir & Sensor (208/230V)	<input type="checkbox"/> X87-721 - 208/230
Extension Cord for Blue Diamond Pump	<input type="checkbox"/> C13-103
Sauermann Mini-Condensation pump (115V)	<input type="checkbox"/> SI30-115
Sauermann Mini-Condensation pump (230V)	<input type="checkbox"/> SI30-230
MegaBlue Blue Diamond Condensate Pump (110-230V)	<input type="checkbox"/> X87-835
Remote Sensor (extensible)	<input type="checkbox"/> PAC-SE41TS-E
Connector for CN32 (remote ON/OFF)	<input type="checkbox"/> PAC-SE55RA-E
Connector for CN152 (Back up heating)	<input type="checkbox"/> PAC-SE59RA-E
External fan / Heater control relay adapter	<input type="checkbox"/> CN24RELAY-KIT-CM3
Backlit, wall-mounted, wireless	<input type="checkbox"/> MHK1
Wireless Remote Controller	<input type="checkbox"/> MRCH1
Wireless Receiver	<input type="checkbox"/> MFH1
Portable Central Controller	<input type="checkbox"/> MCCH1
Outside Air Sensor	<input type="checkbox"/> MOS1
Wireless adapter	<input type="checkbox"/> PAC-USWHS002-WF-1
BACnet® and Modbus Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
Wall-mounted, Wired	<input type="checkbox"/> PAC-YT53CRAU-J
Wired remote controller	<input type="checkbox"/> PAR-32MAA-J
T-STAT Interface	<input type="checkbox"/> PAC-US444CN-1
Wired remote controller	<input type="checkbox"/> PAR-32MAA
Simple remote controller	<input type="checkbox"/> PAC-YT53CRAU
Wireless Remote Controller	<input type="checkbox"/> PAR-FL32MA-E
Wire for Remote ON/OFF with CN32 connector	<input type="checkbox"/> PAC-715AD
Lockdown Bracket for wireless, hand-held, remote controllers	<input type="checkbox"/> RCMKP1CB

PUY-A24NHA7(-BS)	
Twinning Distribution Pipe (50:50)	<input type="checkbox"/> MSDD-50TR-E
Front Wind Baffle	<input type="checkbox"/> WB-PA5
Drain socket	<input type="checkbox"/> PAC-SG61DS-E
Centralized Drain Pan	<input type="checkbox"/> PAC-SG64DP-E
M-NET Converter	<input type="checkbox"/> PAC-SF83MA-E
Control/Service Tool	<input type="checkbox"/> PAC-SK52ST

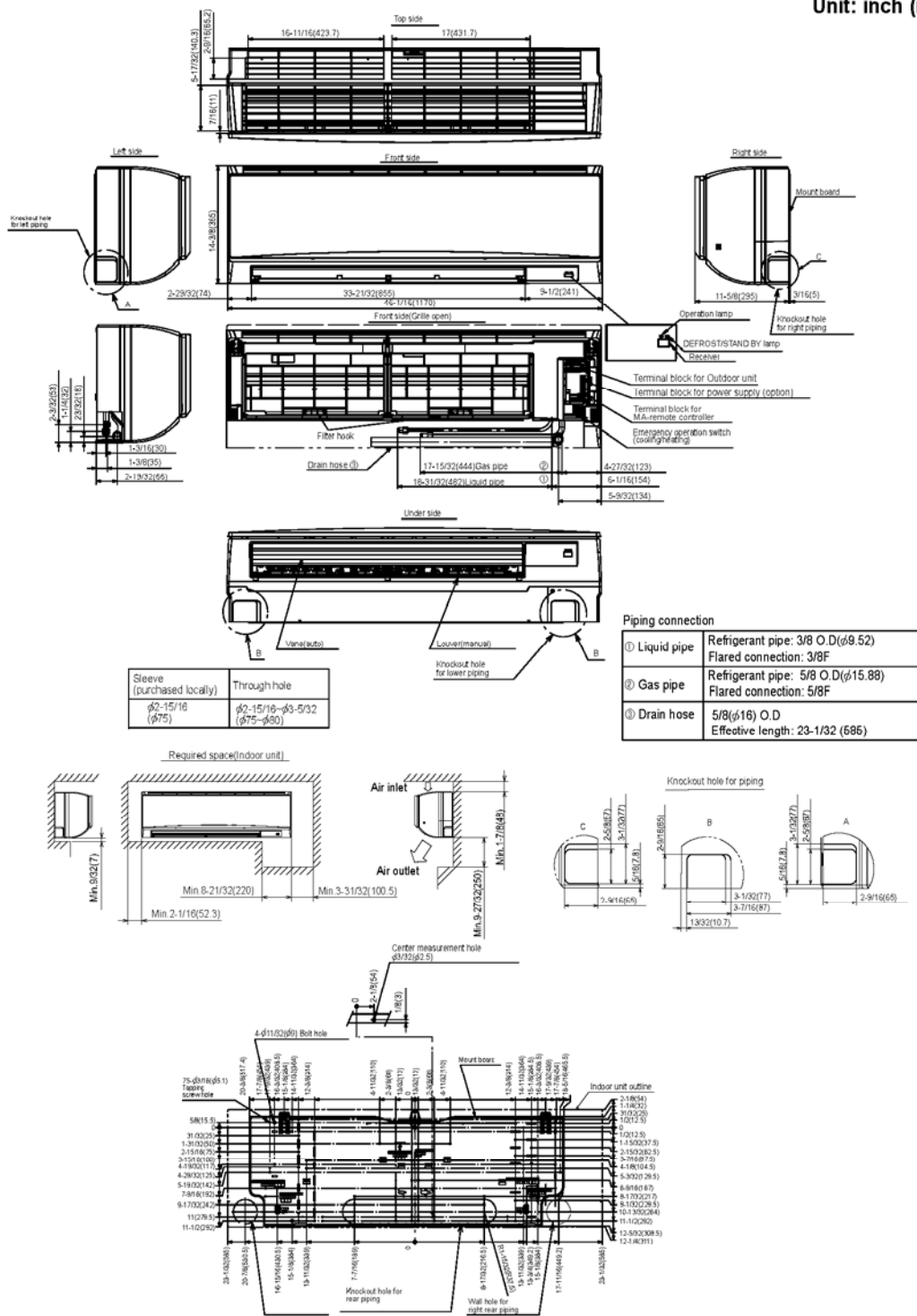
ACCESSORIES: PKA-A24KA7 & PUY-A24NHA7(-BS)

PUY-A24NHA7(-BS)	
Wall mounting bracket (powder-coated steel)	<input type="checkbox"/> QCWB2000M-1
Wall mounting bracket (316 Series Stainless Steel)	<input type="checkbox"/> QCWBSS
M-NET control adapter for Building Management System	<input type="checkbox"/> PAC-SF83MA-E
Outdoor Unit Mounting Pad 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
Outdoor Unit 3-1/4 inch Mounting Base - Pair (Plastic)	<input type="checkbox"/> DSD-400N
MiniSplit Mounting Stand-Single Fan models - 12"	<input type="checkbox"/> QSMS1201M
MiniSplit Mounting Stand-Single Fan models - 18"	<input type="checkbox"/> QSMS1801M
MiniSplit Mounting Stand-Single Fan models - 24"	<input type="checkbox"/> QSMS2401M
3/8 x 5/8 x 10' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
3/8 x 5/8 x 15' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
3/8 x 5/8 x 30' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
3/8 x 5/8 x 50' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
3/8 x 5/8 x 65' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65
3/8 x 5/8 x 100' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100

DIMENSIONS: PKA-A24KA7 & PUY-A24NHA7 (-BS)

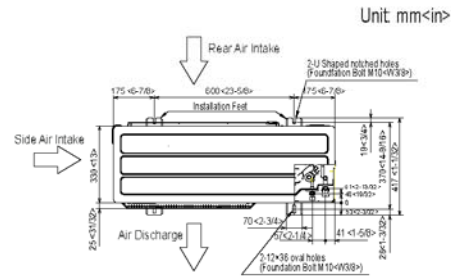
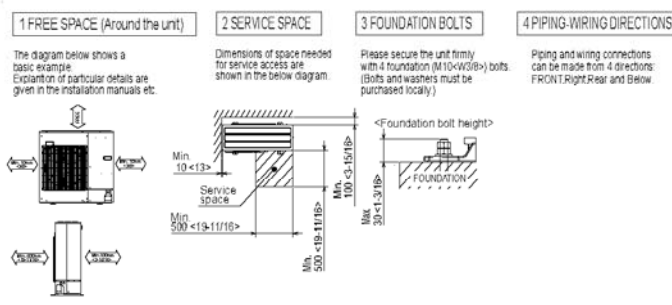
PKA-A24KA7

Unit: inch (mm)



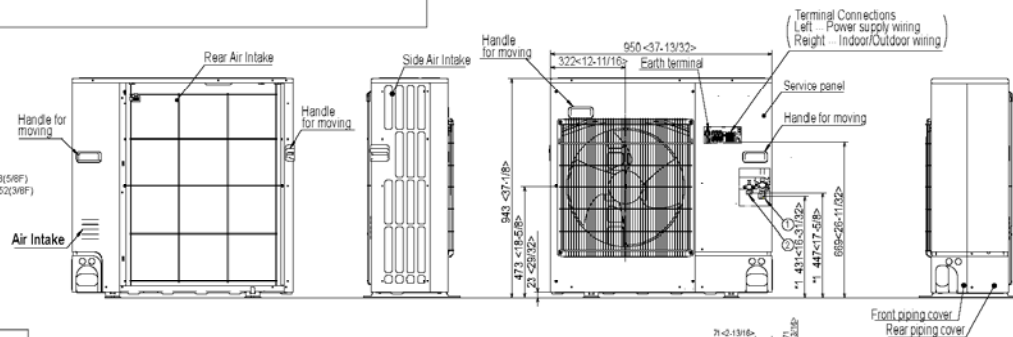
DIMENSIONS: PKA-A24KA7 & PUY-A24NHA7 (-BS)

PUY-A24NHA7(-BS)

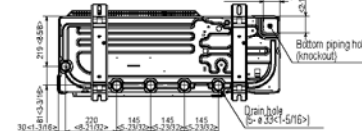
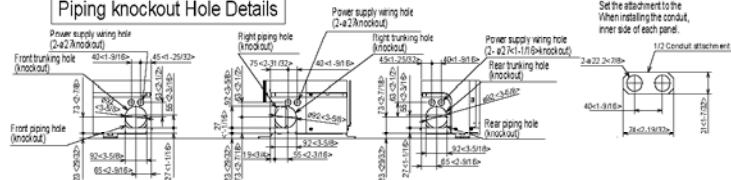


Example of Notes

- ① Refrigerant GAS pipe connection (FLARE) ø15.88(5/8")
 - ② Refrigerant LIQUID pipe connection (FLARE) ø9.52(3/8")
- *1-- Indication of STOP VALVE connection location



Piping knockout Hole Details



1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# PKA-A24KA7 / PUY-A24NHA7(-BS) - 201702Ver3



Specifications are subject to change without notice.

Copyright © 2017 Mitsubishi Electric US, Inc.

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

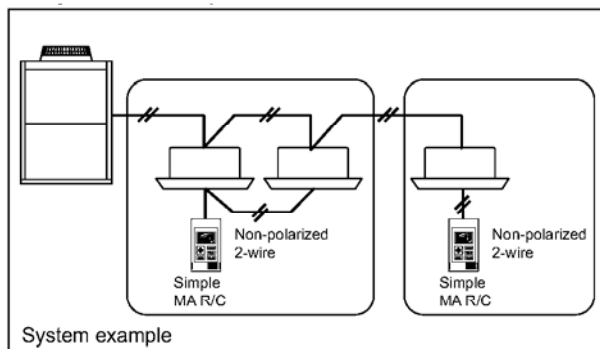
Schedule Reference: IU UNITS

Date: 9-21-17



SIMPLE MA REMOTE CONTROLLER (PAC-YT53CRAU) SPECIFICATIONS

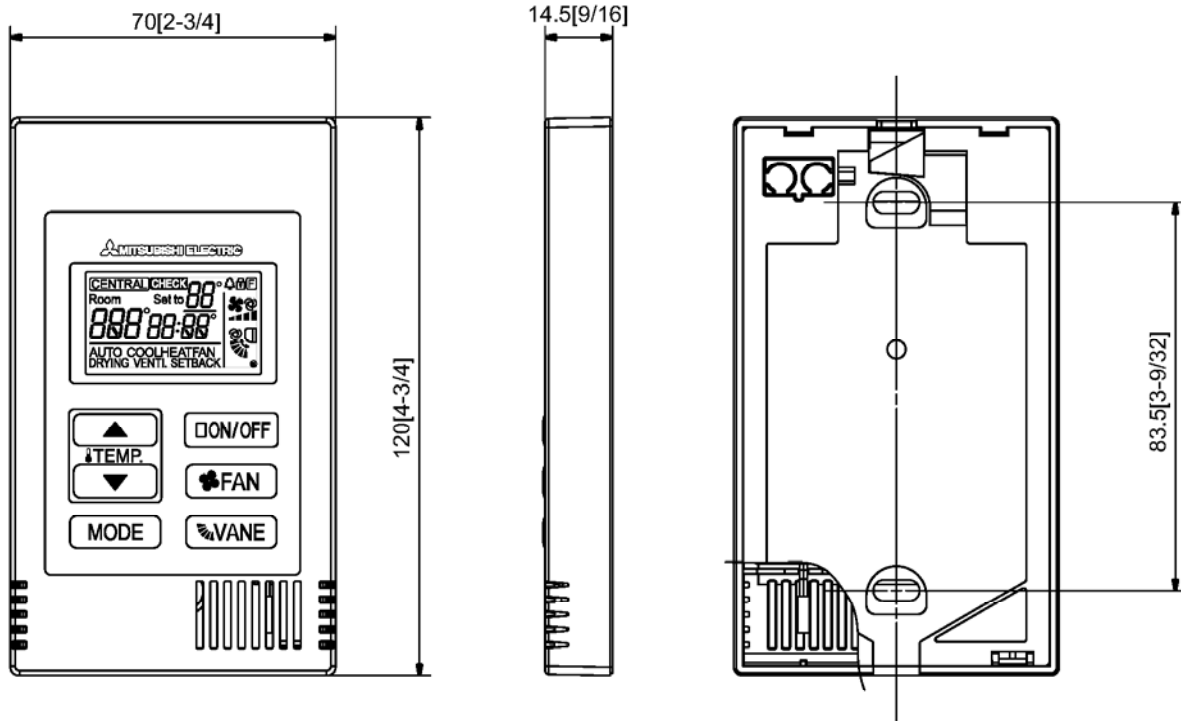
- Controls group operation for up to 16 indoor units in a single group
- Supports both Fahrenheit and Celsius
- User defined functions:
 - ON/OFF
 - Operation mode: AUTO (R2-Series only), COOL, HEAT, FAN, DRYING, or SETBACK
 - Set temperature
 - Fan speed setting
 - Air flow direction
 - Set temperature 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).



Notes:

Model: PAC-YT53CRAU – DIMENSIONS

Unit:mm[in.]



Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference: Centralized Controller

Date: 9-21-17



EW-50A

- EW-50A can be a Master Controller or Expansion Controller
- Master Controller can operate and monitor up to 50 indoor units.
- Expansion Controller can expand an AE-200A to operate and monitor up to 50 additional indoor units through the touch screen or web browser. Network up to three AE-50A to one AE-200A to allow the AE-200A to manage up to 200 indoor units.

OPTIONAL LICENSES

- SW-BACnet Master for SW-BACnet Expansion: BACnet Function
 - Connected air conditioning units can be monitored and operated not only from the existing web browser or the AE-200/AE-50's LCD, but also from the building management system using the BACnet® communication protocol. See SW-BACnet Data Sheet for more information.
- SW-Charge Master for SW-BACnet Expansion: Energy Allocation
 - The apportioned electricity billing function is an electric energy apportionment system that apportions electric energy using input from electricity meters with a pulse generator function. The respective amounts of electric energy can be apportioned based on the operating status and capacity of each tenant. See SW-Charge Data Sheet for more information.
- SW-PWeb Master for SW-BACnet Expansion: Online Personal Browser
 - Allows tenant managers and general users to control their respective zone conditions via a networked PC, tablet, or mobile phone with or without local remote controllers installed in the space. See SW-PWeb Data Sheet for more information.

SPECIFICATIONS

- Supports dual set point functionality (connected equipment dependent)
- Displays:
 - CITY MULTI® compressor speed and hi/low pressure
 - Advanced HVAC Controller (DC-A2IO) input/output status
 - Indoor unit free contact input/output status
 - Space Temperature and Humidity (from Smart ME or AI controller)
 - Error code
 - Unoccupied setback up temperature range

- Functions
 - Hold function (temporarily disables schedules indoor unit model dependent)
 - Initial setting
 - Operation data back-up
- Permits or prohibits remote controller functions:
 - On/Off
 - Change Operation Mode
 - Change Set point Temperature
 - Filter Status
 - Change Fan Speed
 - Change Air Direction
- External input/output signals can be used for batch operations such as Start/Stop and Emergency Stop (Requires PAC-YG10HA)
- Pulse signal input can obtain watt-hour meter, billing data and energy management data based on the cumulative number of pulse signal pulse signals directly input from a metering device.
- Temperature set point range limits can be set for local remote controllers
- User defined indoor unit functions:
 - On/Off
 - Monitoring and Operation
 - Operation mode:
 - Auto* (Dual or Single set point)
 - Heat
 - Fan
 - Drying
 - Setback*
- Note: *R2 Series only (connected equipment dependent)
- Temperature Setting
- Fan Speed
- Airflow Direction
- Monitoring and Control:
 - CITY MULTI® indoor units
 - M & P Series units (Requires M-Net adapter)
 - Lossnay units
 - PWFY hydronic heat pump units
 - DIDO controllers
 - CITY MULTI® DOAS
 - Interlock setting enables integration of general equipment inputs/outputs and indoor units
- Scheduling
 - Daily
 - Annually
 - Five pattern weekly seasonal schedule
- Twenty four scheduled events per day, indoor unit model dependent:
 - ON/OFF
 - Mode
 - Temperature Setting
 - Vane Direction
 - Fan
 - Speed
 - Operation Prohibits
- Trend data:
 - Fan operation time
 - Thermo-on time
 - Set temperature
 - Room temperature
 - AI Controller temperature and humidity (Requires PAC-YG63 MCA, 2 inputs total for each controller)
- Memory back up via USB (universal serial bus)
- Memory back up via LAN (Local Area Network) port

Model: EW-50A - Specifications, cont.

EW-50A Expansion Controller

Item	Specifications		
Power Supply	Rated input	100–240 VAC ± 10%; 50/60 Hz Single-phase	
M-NET power feeding coefficient		1.5	
Ambient conditions	Temperature	Operating Range	-10°C – +55°C (+14°F – +131°F)
		Non-operating Range	-20°C – +60°C (-4°F – +140°F)
	Humidity		30-90% RH (No condensation)
Weight		1.7 kg (4 lbs)	
Dimensions (W x H x D)		172 × 209 × 92 mm (6-13/16 × 8-4/16 × 3-10/16 in)	
		**253 × 172 × 92 mm (10 × 6-13/16 × 3-10/16 in) when using L-fittings	
Installation conditions		Only in a metal control box indoors	

Web Browser Requirements

Item	Requirements
CPU	1 GHz or faster
Memory	512 MB or more
Screen Resolution	1366 x 768 or higher recommended
Compatible Browser	<p>Windows®</p> <p>Microsoft® Internet Explorer 8.0 Microsoft® Internet Explorer 9.0 Microsoft® Internet Explorer 10.0 Microsoft® Internet Explorer 11.0 **Java execution environment is required. (Verified to run on Oracle® Java Plug-in Ver. 1.8.0_25) **Install Oracle® Java Plug-in that is appropriate for your operating system. When using a 64-bit OS, install a 32-bit and a 64-bit Java Plug-in. **The version of the Oracle® Java Plug-in can be verified by clicking [Java] in the Control Panel.</p>
Onboard LAN Port or LAN Card	100 BASE-TX
100 BASE-TX	e.g., mouse

Notes:

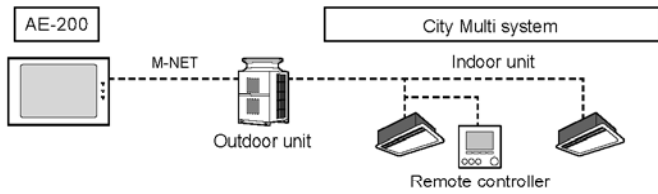
Models: EW-50A - System Configuration

*AE-200A is indicated as AE-200

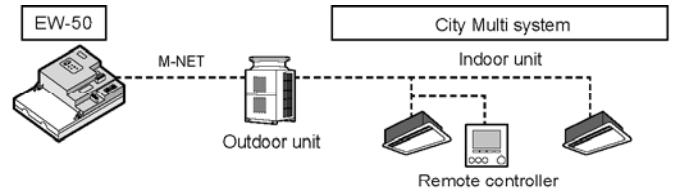
*AE-50A is indicated as AE-50

Controlling 50 or fewer units of equipment

1. AE-200



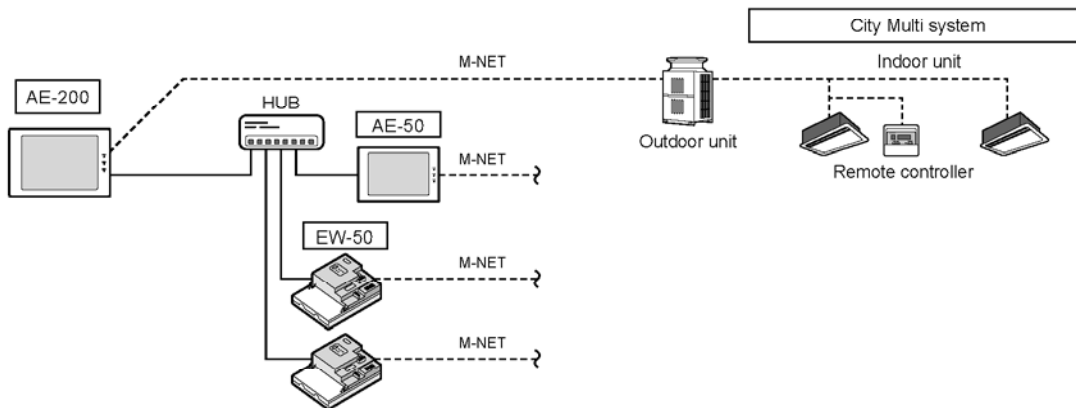
2. EW-50



Controlling more than 50 units of equipment (with connection to an AE-200 controller)

Note

AE-200 is required when using AE-50.

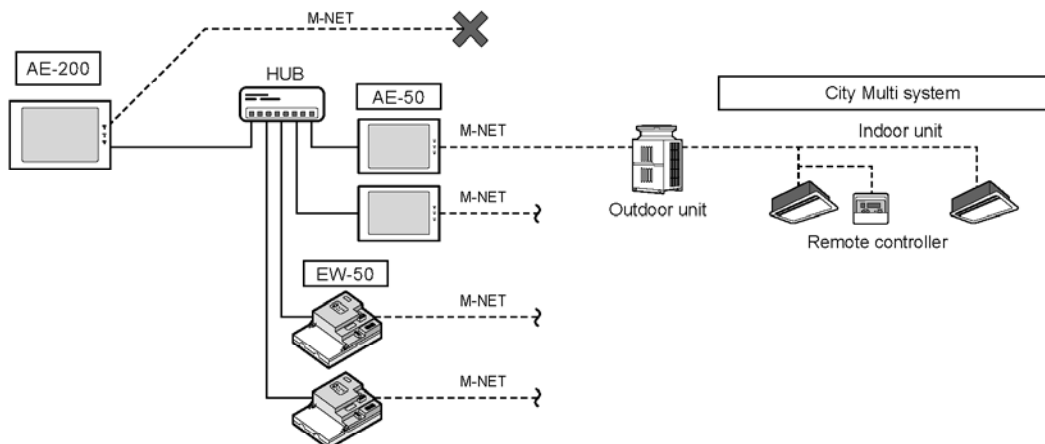


When using an apportioned electricity billing function

Note: AE-200 is required to use a billing function.

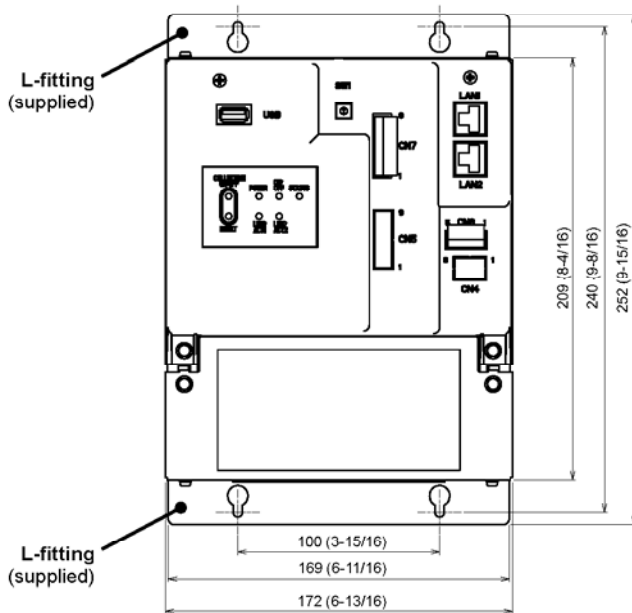
Note: AE-200 M-NET cannot be used when a billing function is used.

Note: "Charge" license is required to use a billing function.

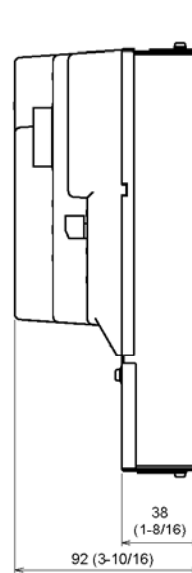


Model: EW-50A - Dimensions

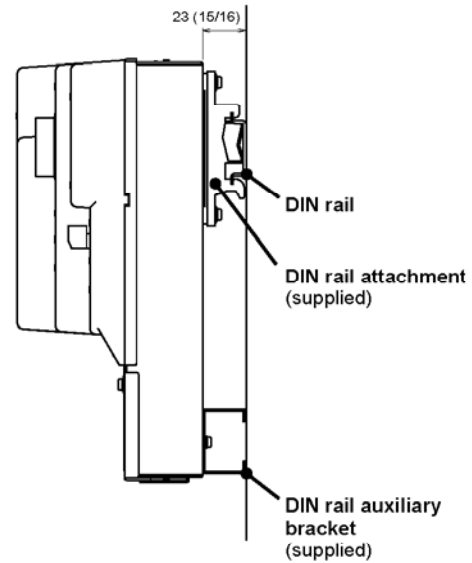
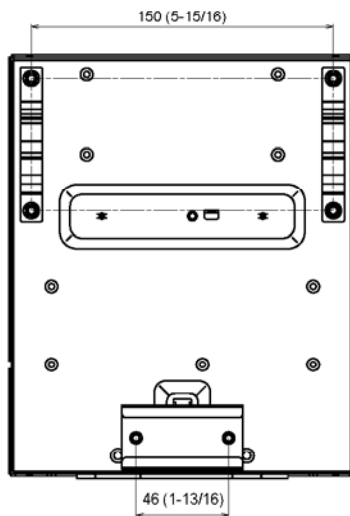
(1) When using L-fittings



Unit: mm (in)



(2) When using DIN rail



COOLING & HEATING

1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

Model: PAC-SF83MA-E
M-NET Control Adapter for P-Series Outdoor units

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference: OU-3

Date: 9-21-17



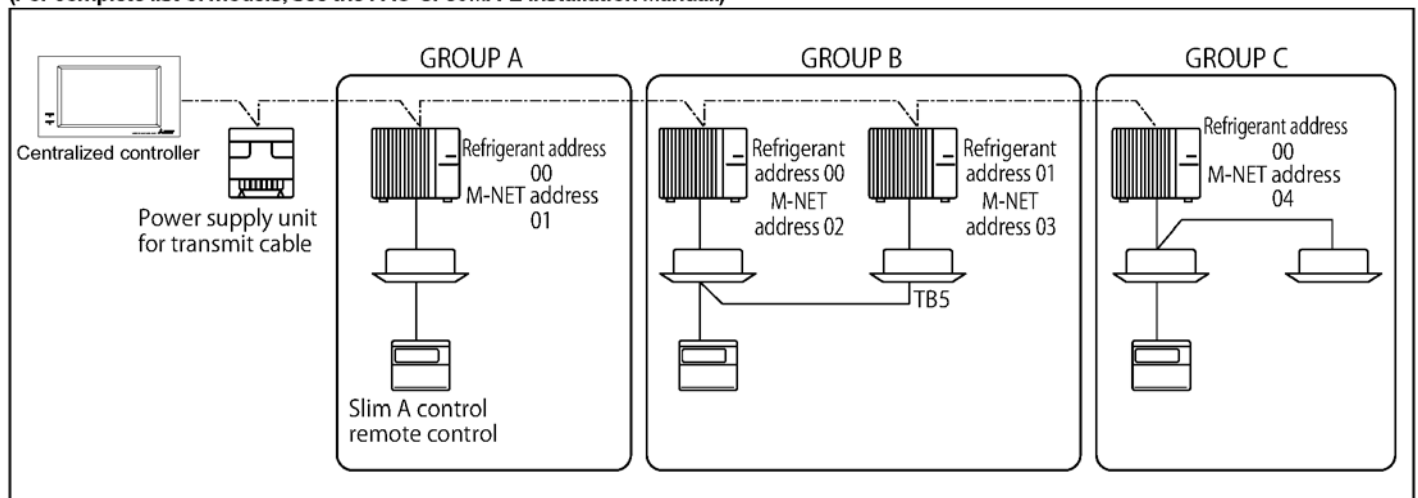
**P-SERIES M-NET CONTROL ADAPTER
(PAC-SF83MA-E) SPECIFICATIONS**

- Allows the P-Series outdoor units to communicate with the CITY MULTI® Controls Network
- Connects to outdoor unit
- Requires one converter per outdoor unit

LIST OF MODELS

Group A	Group B
PUY-A12NHA	PUZ/Y-A24,30,36,42NHA
PUZ/Y-A18NHA	PUZ/Y-A24,30,36,42NHA2
PUZ/Y-A18NHA2	PUZ/Y-A24,30,36,42NHA3
PUZ/Y-A18NHA3	PUZ/Y-A24,30,36,42NHA4
PUZ/Y-A18NHA4	PUZ/Y-A42NHA5
	PUZ-HA30/36NHA
	PUZ-HA30/36NHA2
	PUZ-HA30/36NHA4

(For complete list of models, see the PAC-SF83MA-E Installation Manual.)



Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference:

Date: 9-21-17

OVERVIEW

The BACnet® function can be used when connecting AE-200/AE-50/EW-50 to the open network BACnet® that is used for the building management system. Connected air conditioning units can be monitored and operated not only from the existing web browser or the AE-200/AE-50's LCD, but also from the building management system using the BACnet® communication protocol.

BACnet® communication now communicates from a centralized controller's LAN2 port.

LICENSES

- SW-BACnet Master
 - Master Controller license for AE-200A and EW-50A
- SW-BACnet Expansion
 - Expansion Controller license for AE-50A and EW-50A

SW-BACnet SPECIFICATIONS

- Control up to 50 groups
 - 1 to 16 indoor units can be collectively controlled in a group
 - Supports dual set-point functionality (connected model dependent)
- See page 3 for Points List
- BTL Compliant
- BACnet® communication specifications are based on ANSI/ASHRAE Standard 135-2010



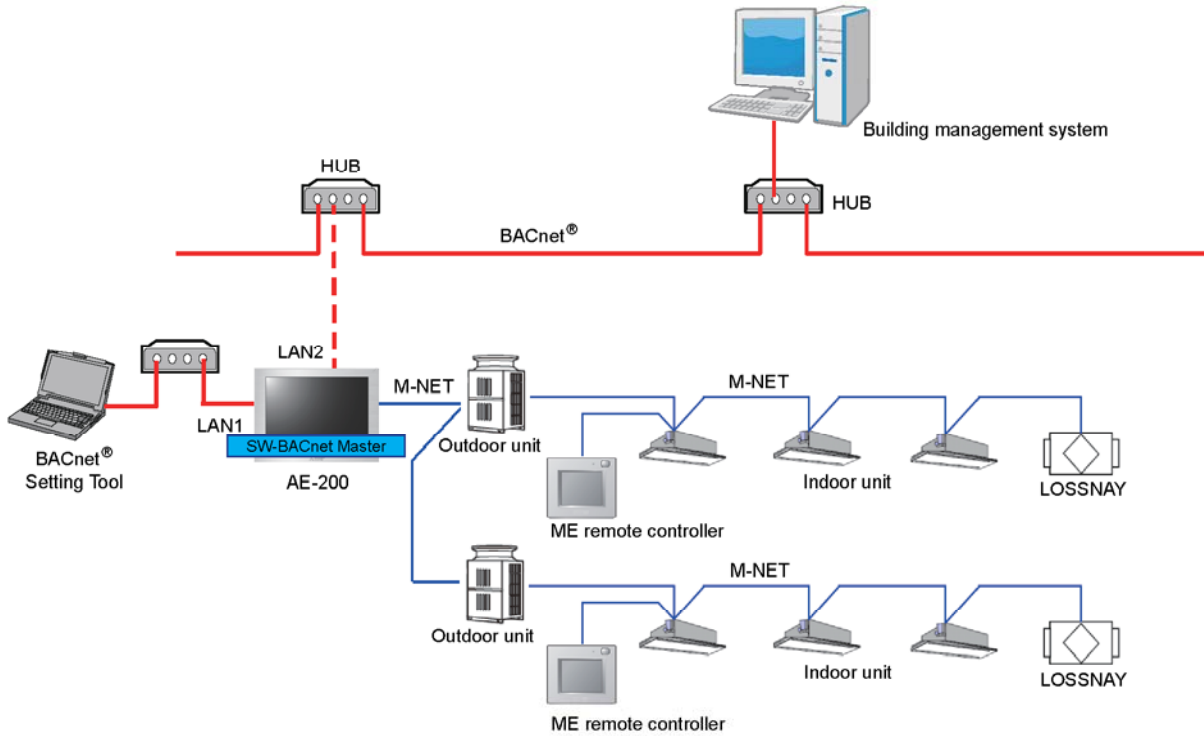
PC REQUIREMENTS

The BACnet® Setting Tool is dedicated software to set network settings and settings related to BACnet® communication (also including object selection and COV/Event notification) and then set the settings to the centralized controller.

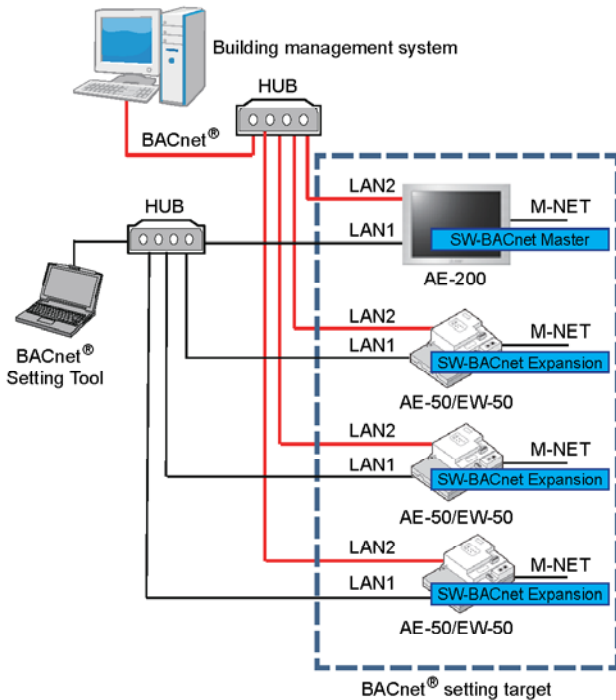
The PC used for the BACnet® Setting Tool requires the following environment.

Item	Requirement	Remarks
CPU	1 GHz or higher	
Memory	1 GB or more	
HDD space	100 MB or more	C drive
Screen resolution	1024 x 768 or higher	
LAN	1 port (100 BASE-TX)	
OS	Microsoft® Windows® 7 32-bit/64-bit Microsoft® Windows® 8.1 32-bit/64-bit * Not compatible to Windows Vista®.	
Execution environment	Microsoft® .NET Framework 4.5 or later	
Others	Pointing device such as a mouse Internet connection environment (required when installing .NET Framework)	

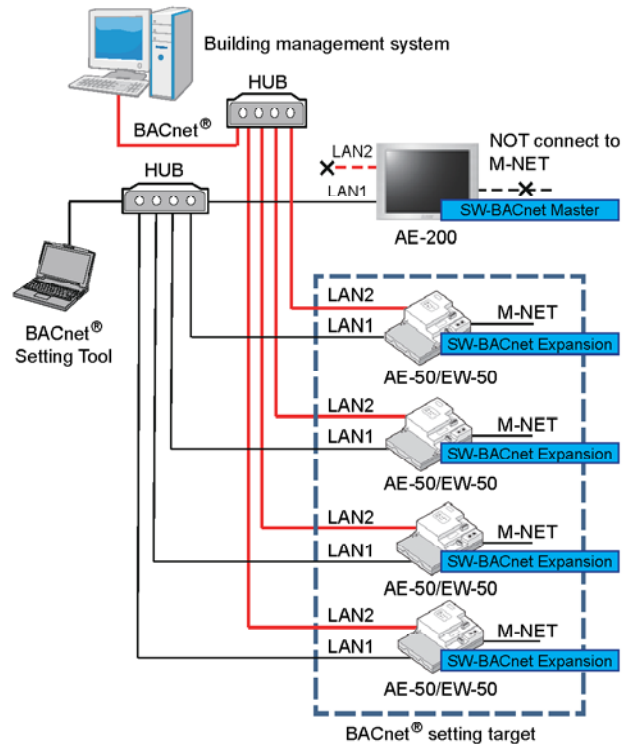
Model: SW-BACnet - System Example



(A) When controlling more than 50 units of equipment and not using an apportioned electricity billing function



(B) When using an apportioned electricity billing function



Model: AE-200/AE-50/EW-50 BACnet® Points List

Object List
On Off Setup
On Off State, Number of ON/OFF, Cumulative operation time
Alarm Signal (4-digit error code)
Error Code
Operational Mode Setup
Operational Mode State
Fan Speed Setup
Fan Speed State
Room Temp [Water Temp]
Set Temp [Set Water Temp]
Set Temp Cool
Set Temp Heat
Set Temp Auto
Filter Sign [Circulating Water Exchange Sign]
Filter Sign Reset [Circulating Water Exchange Sign Reset]
Prohibition On Off
Prohibition Mode
Prohibition Filter Sign Reset [Prohibition Circulating Water Exchange Sign Reset]
Prohibition Set Temperature
M-NET Communication State
System Forced Off
Air Direction Setup
Air Direction State
Set High Limit Setback Temp
Set Low Limit Setback Temp
Ventilation Mode Setup
Ventilation Mode State
Air To Water Mode Setup
Air To Water Mode State
System Alarm Signal (4-digit error code)
PI Controller Alarm Signal (4-digit error code)
Group Apportioned Electric Energy
Interlocked Units Apportioned Electric Energy
PI controller Electric Energy 1-4
Pulse Input Electric Energy 1-4
Group Apportionment Parameter
Interlocked Units Apportionment Parameter
Night Purge State
Thermo On Off State
Trend Log Room Temp
Trend Log Group Apportioned Electric Energy
Trend Log Interlocked Units Apportioned Electric Energy
Trend Log PI controller Electric Energy 1-4
Trend Log Pulse Input Electric Energy 1-4
Trend Log Group Apportionment Parameter
Trend Log Interlocked Units Apportionment Parameter



1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

Submittal Data Sheet



White Series

Mini Univolt 100-250v Pump Kit

83939 (ASP-MW-UNI)

Project Information:

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

Location:

Engineer:

Submitted to:

For: Reference Approval Construction

Submitted by:

Reference: IU-9

Submittal Information:

Approval:

Date: 9-21-17

Construction:

Unit #:

Drawing #:

(Sec. I) Product Specifications:

Pump Length - 7.125"
 Pump Width - 2"
 Pump Height - 4.5"
 Capacity - 3.2 GPH @ Zero Head / 0.8 GPH @ 33' Head
 Max BTUs - 30000
 Max Head in Feet - 33
 Max Temperature - N/A
 Max Suction Lift - N/A
 Sound Level - 25dB(A)
 Dry Contact Rating - 3A NO/NC
 Voltage - 100-250
 Amperes - .18
 Watts - 16
 Remote Reservoir - Y
 Plenum Rated - N
 Cable Length - 39"

Pump Selector & Wiring Diagrams Available at

<http://www.rectorseal.com/aspenspump.html>

(Sec. II) Ordering Information:

Product Code - 83939
 Model - ASPMWUNI
 Carton Qty - 1
 Carton Weight - 1.5

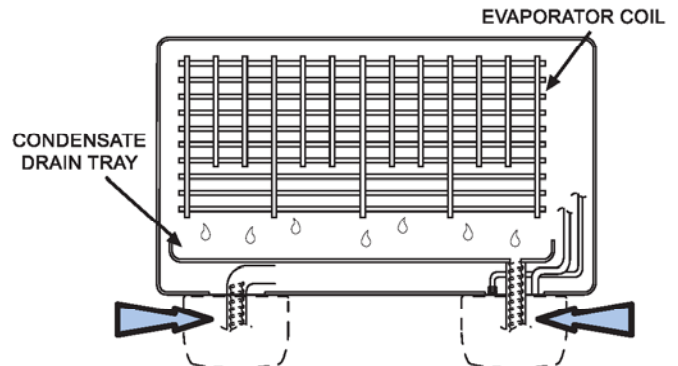
(Sec. III) Carton Contents:

Monobloc Pump Assembly	Hose Clamp
39" Power Cable	Water Treatment Tablet
Inline Fuse	Anti-siphon (1)
Installation Manual	
Wall Anchors (3)	
Screws (3)	

(Fig. I) Product Image:



(Fig. II) Typical Pump Locations:



(RectorSeal's products are subject to continuous improvements; RectorSeal reserves the right to modify product design, specifications & information in this data sheet without notice and without incurring any obligations)

ASPEN® is a registered trademark of Aspen Oldco Limited Company UK
 Mini White is a registered trademark of Aspen Pumps Limited Company UK

FRONT WIND BAFFLE WB-PA3 / WB-PA4 / WB-PA5

DESIGNED FOR P-SERIES AND PUMY OUTDOOR UNITS ONLY

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference: OU-1,2,3

Date: 9-21-17



WB-PA3 / WB-PA4 / WB-PA5

GENERAL FEATURES

- WB-Series Wind Baffles allow P-Series outdoor units to operate at full capacity to 0° F DB cooling.
- Allows PUMY outdoor units to operate to 23° F DB cooling.
- Prevents wind from reversing outdoor fan rotation when un-energized.
- Durable, low maintenance construction.
- WB-PA3 Wind Baffle allows PUMY-P-NKMU1 outdoor units to operate down to 5° F DB at 100% capacity in cooling mode and down to -13° F DB in heating mode with a de-rate.

PLEASE NOTE

- Install outdoor units with the back surface facing wall side to eliminate the effects of external wind.
- Outdoor units should not be installed in an orientation or site where the wind blows directly at the back of the unit.
- Wind baffle should not be used where there is any obstacle at either side or above the outdoor unit as the discharged air will be blocked.

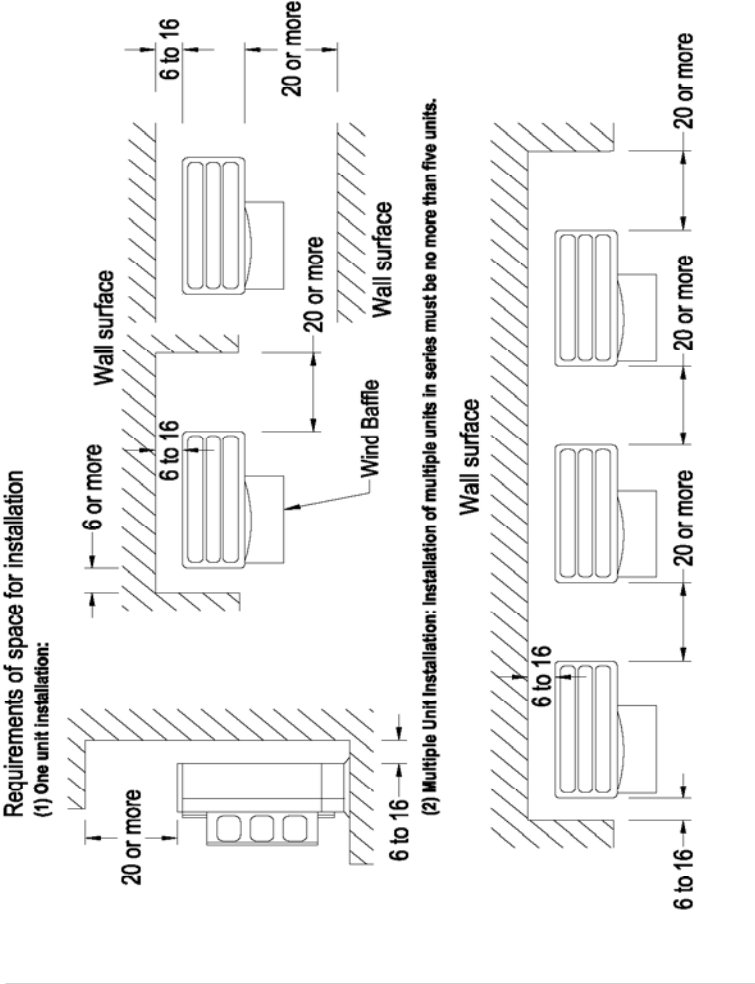
SPECIFICATIONS

		WB-PA3	WB-PA4	WB-PA5
Exterior	Color	Matches P-Series Outdoor Unit		
	Surface Treatment	Polyester Powder Paint		
	Material	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet		
Weight	8 Lbs. 8 Oz.	7 Lbs. 9 oz	8 Lbs. 5 Oz.	

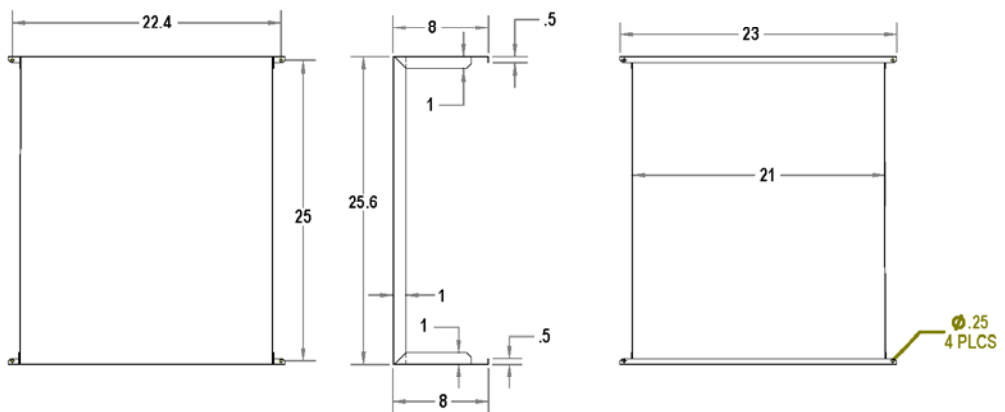
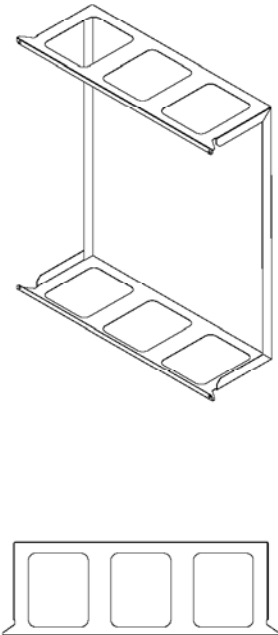
MODEL REQUIRED PER OUTDOOR UNIT

UNIT MODEL	Type and Quantity		
	WB-PA3	WB-PA4	WB-PA5
PUY/Z-A24NHA4			1
PUY/Z-A30NHA4			1
PUY/Z-A36NHA4			1
PUY/Z-A42NHA4			2
PUY/Z-A42NHA5			2
PUZ-HA30NHA4			2
PUZ-HA36NHA4			2
PUZ-HA30NHA5			2
PUZ-HA36NHA5			2
PUZ-HA42NKA	2		
PUMY-P36NHMU			2
PUMY-P36NKMU1	2		
PUMY-P48NHMU			2
PUMY-P48NKMU1	2		
PUMY-P60NKMU1	2		
PUY/Z-A24NHA6			1
PUY/Z-A30NHA6			1
PUY/Z-A36NHA6			1
PUY/Z-A42NHA6			2
PUY/Z-A12NKA7		1	
PUY/Z-A18NKA7		1	
PUY/Z-A24NHA7			1
PUY/Z-A30NHA7			1
PUY/Z-A36NKA7	2		
PUY/Z-A42NKA7	2		

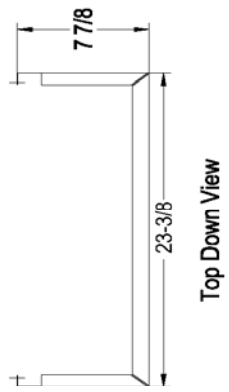
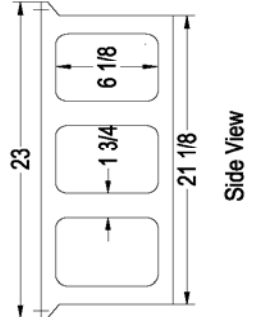
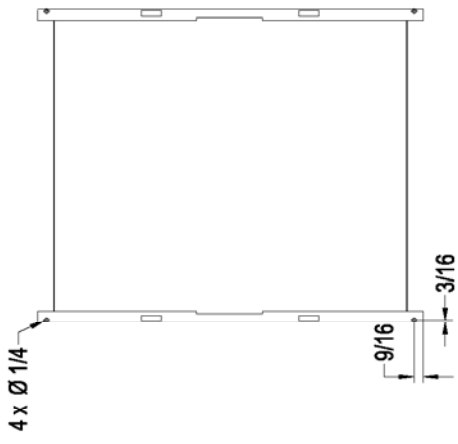
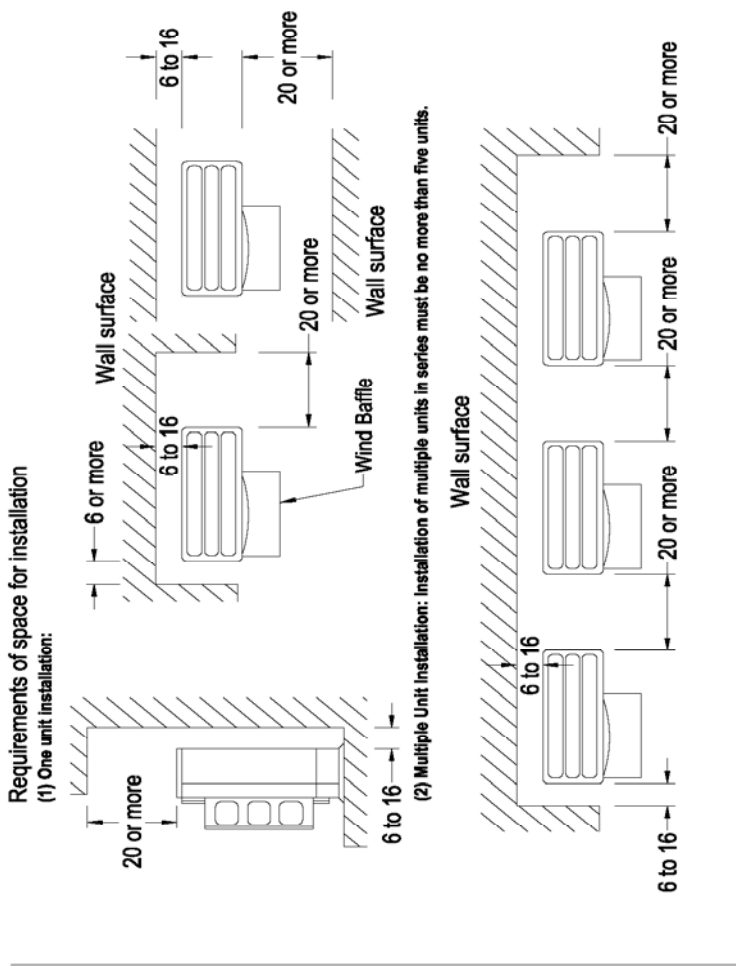
DIMENSIONS: WB-PA3



ALL DIMENSIONS IN INCHES
ALL DIMENSION $\pm \frac{1}{32}$ "



DIMENSIONS: WB-PA5



ALL DIMENSIONS IN INCHES
ALL DIMENSION $\pm \frac{1}{32}$ "

Manufactured for MITSUBISHI ELECTRIC US, INC.
1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

ADVANCED WIND BAFFLE WB-SD / WB-RE

DESIGNED FOR P-SERIES PUY-7 OUTDOOR UNITS ONLY

Job Name: Payson Smith Hall 3rd Floor Renovations University of Southern Maine

System Reference: OU-1,2

Date: 9-21-17



WB-SD4



WB-SD5



WB-SD6



WB-RE4



WB-RE5



WB-RE6

GENERAL FEATURES

- Allows P-Series outdoor units to operate to -20° F DB cooling.
- Prevents wind from reversing outdoor fan rotation.
- Durable, low maintenance construction.

PLEASE NOTE

- Installation location will dictate Advanced wind baffle requirements. Refer to the installation manual for additional details.
- Advanced Wind Baffles should be installed to prevent any wind blowing directly into the unit.
- **Front Wind Baffle (WB-PA3, WB-PA4, WB-PA5) is also required for -20° F operation.**

MODEL REQUIRED PER OUTDOOR UNIT

UNIT MODEL	Type and Quantity					
	WB-SD4	WB-RE4	WB-SD5	WB-RE5	WB-SD6	WB-RE6
PUY-A12NKA7	1	1				
PUY-A18NKA7	1	1				
PUY-A24NHA7			1	1		
PUY-A30NHA7			1	1		
PUY-A36NKA7					1	1
PUY-A42NKA7					1	1

SPECIFICATIONS

		WB-SD4	WB-RE4
Exterior	Color	Matches P-Series Outdoor Unit	
	Surface Treatment	Polyester Powder Coating	
	Material	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet	
Weight (Lbs)		6	11

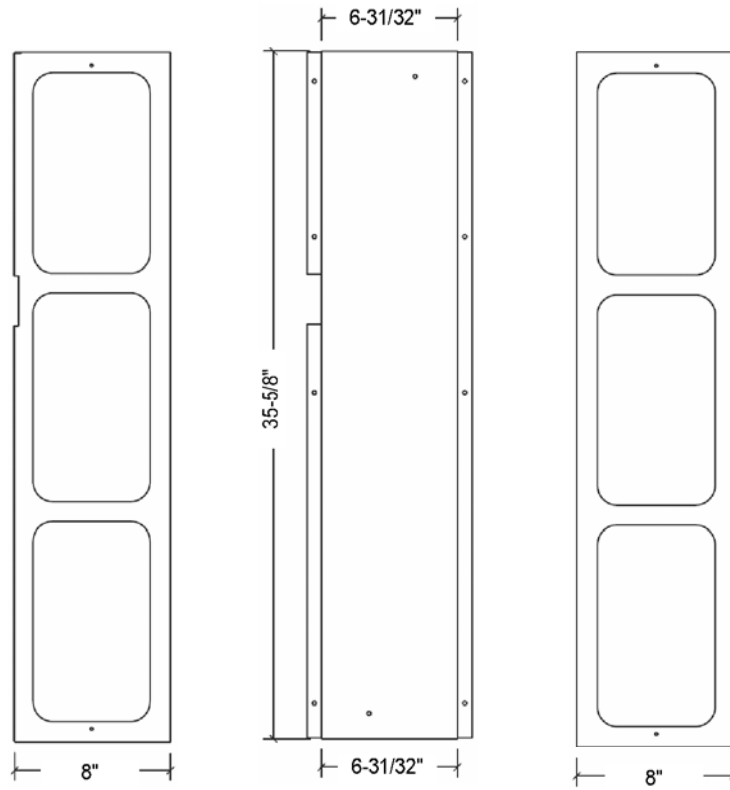
		WB-SD5	WB-RE5
Exterior	Color	Matches P-Series Outdoor Unit	
	Surface Treatment	Acrylic Resin Coating	
	Material	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet	
Weight		10	18

		WB-SD6	WB-RE6
Exterior	Color	Matches P-Series Outdoor Unit	
	Surface Treatment	Acrylic Resin Coating	
	Material	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet	
Weight		15	35

DIMENSIONS: WB-SD5 and WB-RE5

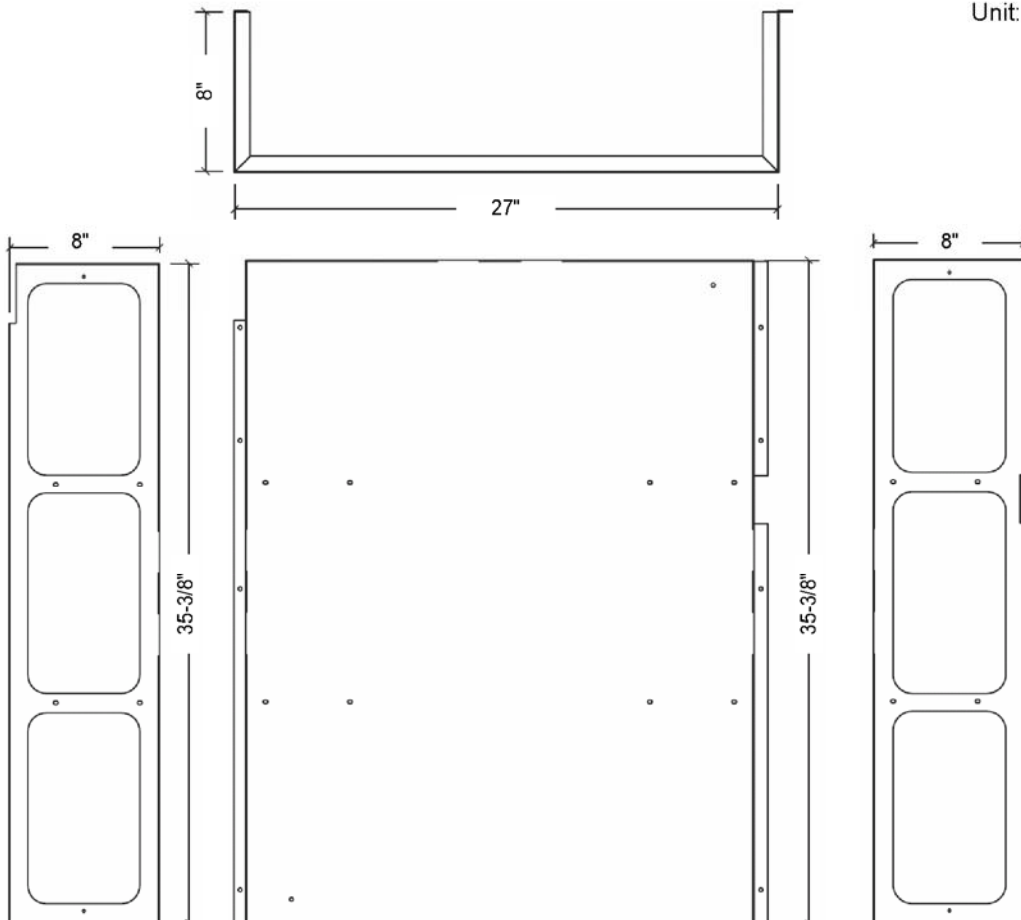
WB-SD5

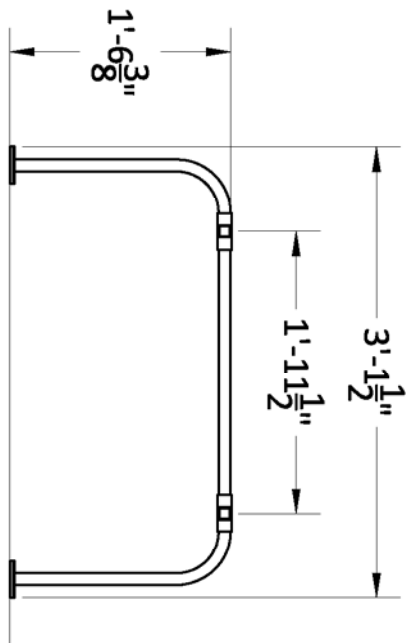
Unit: inch



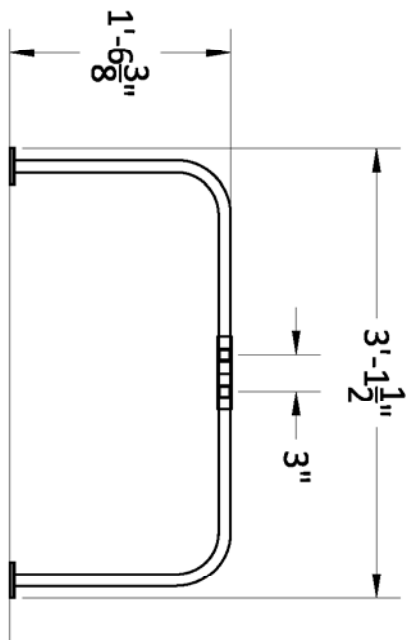
WB-RE5

Unit: inch

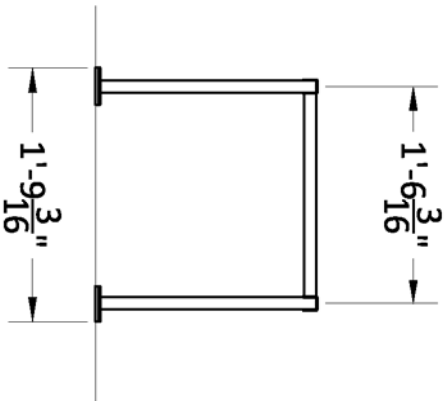




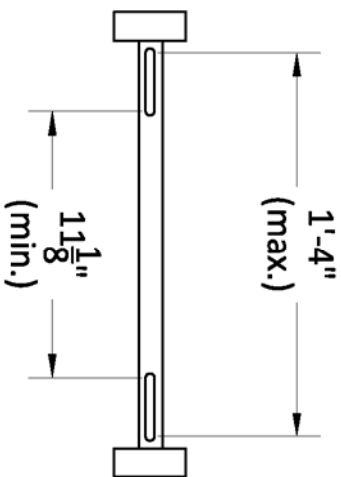
Side View - Expanded



Side View - Retracted



End View - Fixed



Spacer Bar Detail

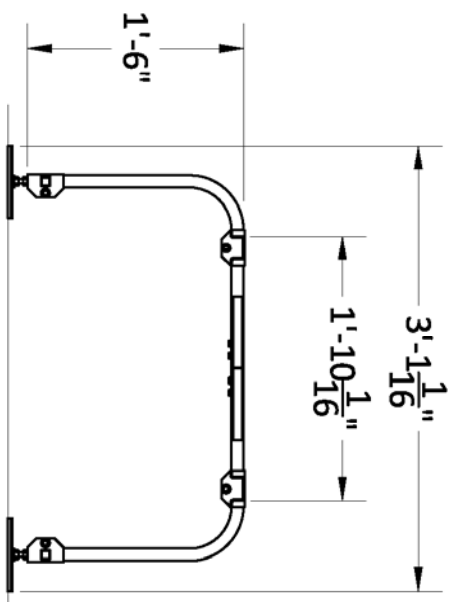
(Showing Range of Bolt Spacing)



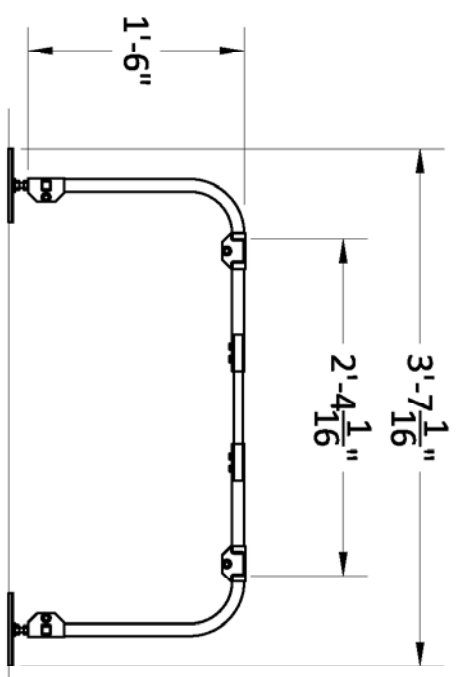
ASSEMBLY DRAWING
 "MINI-SPLIT 18"
 FIXED STAND - WIDE
 MODEL NO. QSMS1801

www.quick-sling.com
 email: info@quick-sling.com
 fax: 1-(800)-699-0423

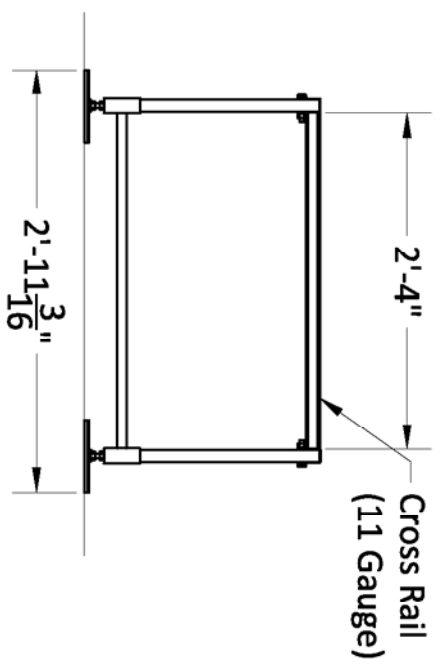
Quick Sling, LLC
 391 W. Water Street
 Taunton, MA 02780
 1-(800)-699-0543



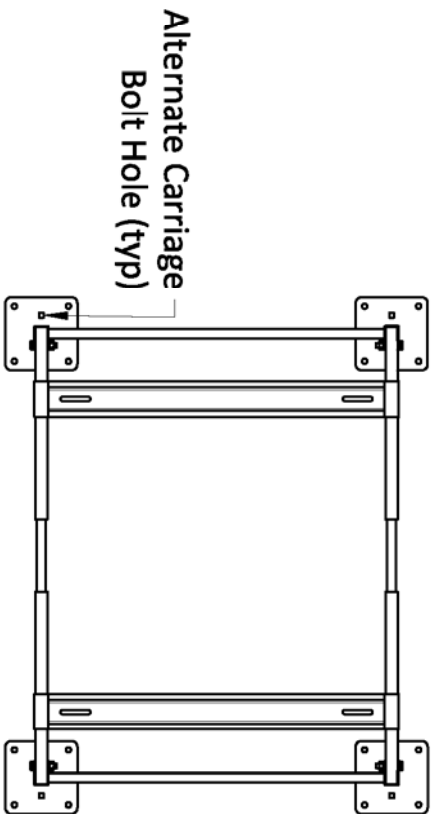
Side View - Retracted



Side View - Expanded



End View - Fixed



Plan View - Expanded



ASSEMBLY DRAWING
 "MINI-SPLIT 18"
 ADJUSTABLE STAND - WIDE
 MODEL NO. QSMS1802

www.quick-sling.com
 email: info@quick-sling.com
 fax: 1-(800)-699-0423

Quick Sling, LLC
 391 W. Water Street
 Taunton, MA 02780
 1-(800)-699-0543

MITSUBISHI CITY MULTI VRF OUTDOOR UNIT SCHEDULE

System Tag	Tag Reference	M-Net Address	Model Number	Modules	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Voltage / Phase	Electrical Per Module			Notes / Options
												MCA 208/230 or 460V	RFS	MOCPP	
System 1	OU-1	51	P36NKMU1 PUY	P36	36,000.0	42,000.0	87.0	-6.5	26,034.7	21,723.6	208-230V / 1-Phase	31	4C	44	1, 2, 3, 4, 5
System 2	OU-2	55	P36NKMU1 PUY	P36	36,000.0	42,000.0	87.0	-6.5	28,037.3	21,720.8	208-230V / 1-Phase	31	4C	44	1, 2, 3, 4, 5
OU-3		9	PUY-A24NH47		24,000.0	00.0	87.0	-6.5	23,932.7	00.0	208/230V / 1-Phase	N/A	N/A	N/A	1, 2, 3, 4, 5

Notes & Options:

- 1 Nominal cooling capacities are based on indoor coil EAT of 60.5°F (DB/WB), outdoor of 95°F (DB)
- 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- 3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
- 4 For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module
- 5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.

MITSUBISHI CITY MULTI VRF INDOOR UNIT SCHEDULE

System Tag	Room Name	Tag Reference	Model	Type	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Design Capacity (BTU/h) [Water in temp]	Heating Design Capacity (BTU/h) [Water in temp]	Connected Capacity			Rating Pipe Dia (Liquid/Suction) (inch)	Peak Air Volume (cfm) / (Design gpm) (CU/S) (m³/h)	Max Fan ESP (208V/230V (IN VLG))	Voltage / Phase	Electrical MCA/MFS	Notes / Options
									Cooling Capacity (BTU/h)	Heating Capacity (BTU/h)	Heating Capacity (BTU/h)						
System 1	U-3	U-3	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,008.0	5,098.3	FULL DEMAND	5,001.6	307	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 1	U-1	U-1	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,008.0	5,098.3	FULL DEMAND	5,001.6	307	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 1	U-4	U-4	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,010.7	6,219.9	FULL DEMAND	5,718.6	328	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 1	U-2	U-2	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,008.0	5,098.3	FULL DEMAND	5,001.6	307	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 2	U-5	U-5	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,008.0	5,098.3	FULL DEMAND	4,834.7	307	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 2	U-7	U-7	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,008.0	5,098.3	FULL DEMAND	4,834.7	307	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 2	U-6	U-6	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,010.7	6,219.9	FULL DEMAND	5,225.7	328	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
System 2	U-8	U-8	PMFY-P09NBMU (1-way airflow) ERS	Ceiling cassette type	6,000.0	6,700.0	60,087.0	70.0	FULL DEMAND	6,010.7	6,219.9	FULL DEMAND	5,225.7	328	208/230V/1-phase	0.25/15	1, 2, 3, 4, 5, 6
CU-3	U-9	U-9	PKG-A24K44	Wall mounted type	24,000.0	26,000.0	60,087.0	70.0	FULL DEMAND	23,992.7	18,498.3	FULL DEMAND	30.0	775	Power by Outdoor		1, 2, 3, 4, 5, 6

- Notes & Options:
- Nominal cooling capacities are based on indoor coil EAT of 60/67°F (DB/WB), outdoor of 95°F (DB)
 - Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
 - See schematic piping/control diagram for indication of required indoor unit controls, system controllers, and integration
 - See schematic piping/control diagram for indication of required indoor unit controls, system controllers, and integration
 - Indoor unit capacity is based on standard conditions such as: indoor air 75°F (DB), outdoor air 95°F (DB), indoor air 50% RH, outdoor air 50% RH, indoor air velocity 0.5 ft/min, outdoor air velocity 0.5 ft/min
 - It is recommended to always base heating connected capacity on full demand.

USM Payson Smith Hall 3rd Floor Renovations

CITY MULTI

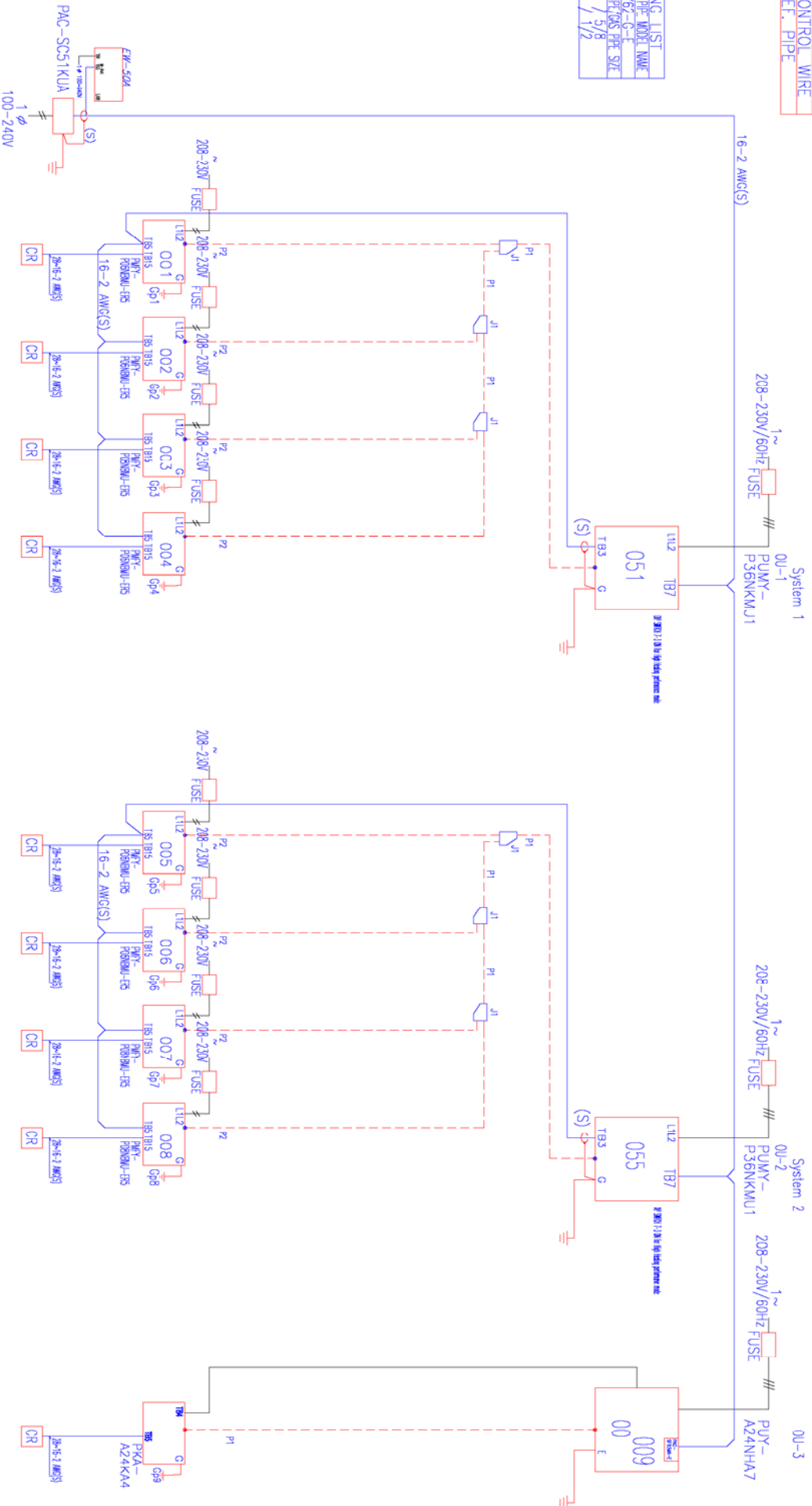
SYSTEM SCHEMATIC DWG.

DIAGRAM	SYMBOL	LEGEND
DISPLAY		DESCRIPTION
##		POWER WIRE
		CONTROL WIRE
		REF. PIPE

CONTINUE	PAGE

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
 1.25mm² (6 AWG) : 1.25mm²(6 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

PIPING LIST		
SYMBOL	BRANCH TYPE	MODEL NAME
J1	CM	16-2-8-E
SYMBOL	LOAD	PIPE SIZE
P1	3/8	3/8
P2	1/4	1/2



REMARKS
 Originator: Nick Sl. Curs
 Comments:

