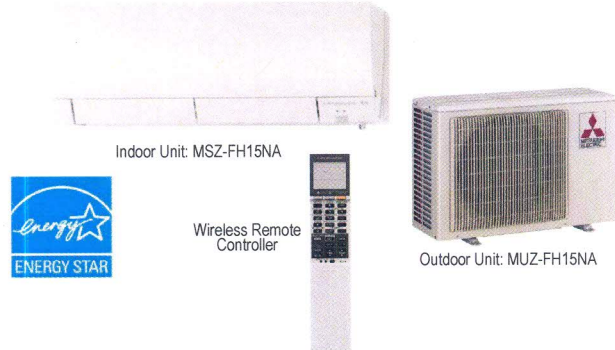


SUBMITTAL DATA: MSZ-FH12NA & MUZ-FH12NA
 12,000 BTU/H WALL-MOUNTED HEAT PUMP SYSTEM

Job Name: <i>Stephen Clayman</i>	Location: <i>960 Seashore Ave</i>	Date: <i>3/3/17</i>
Purchaser: <i>same</i>	Engineer: <i>n/a</i>	
Submitted to: <i>City of Portland</i>	For <input checked="" type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction	
System Designation: <i>n/a</i>	Schedule No.: <i>n/a</i>	


GENERAL FEATURES

- Highly energy-efficient system that features 92% heating capacity at 5°F, 75% at -4°F, and 58% at -13°F
- Updated sleek, compact indoor unit design
- Includes Standard, Platinum Deodorizing, and Anti-allergy Enzyme filters for a complete air purifying system
- "Powerful Mode" function permits system to temporarily run at a lower/higher temperature with an increased fan speed, which quickly brings the room to the optimum comfort level
- Integrated i-see Sensor automatically adjusts the unit's operation according to temperature differences detected between the floor and the intake air, ensuring optimum comfort and energy usage
- Hand-held Wireless Remote Controller
- Base heater is available as an option
- Limited warranty: five years parts and seven years compressors

ACCESSORIES
Outdoor Unit

- Base Heater (MAC-640BH-U)
- Drain Socket (MAC-851DS)

Indoor Unit

- Condensate Pump (BlueDiamond X87-711/721; 115/230V)
- Condensate Pump (Sauermann SI30-115/230; 115/230V)
- Replacement Platinum Deodorizing Filter (MAC-308FT)
- Replacement Anti-allergy Enzyme Filter (MAC-418FT; MERV 8)

Controller Options

- Wireless Wall-mounted Remote Controller Kit (MHK1)*
- Portable Central Controller (MCCH1)*
- Outdoor Air Sensor (MOS1)*
- Wired Wall-mounted Controller (PAR-31MAA requires MAC-333IF)*
- Simple MA Remote Controller (PAC-YT53CRAU requires MAC-333IF)*

*See Submittal for information on each option.

- System Control Interface (MAC-333IF)
- Remote Temperature Sensor (M21-JKO-307)
- Lockdown Bracket for Hand-held Controller (RCMKP1CB)



SPECIFICATIONS: MSZ-FH12NA & MUZ-FH12NA

Cooling *1

Rated Capacity.....	12,000 Btu/h
Capacity Range.....	2,500 - 13,600 Btu/h
Rated Total Input	870 W
Maximum Total Input	1,150 W
SEER	26.1 Btu/h/W

Heating at 47° F *2

Rated Capacity.....	13,600 Btu/h
Capacity Range.....	3,700 - 21,000 Btu/h
Rated Total Input	950 W
Maximum Total Input	2,300 W
HSPF.....	12.5 Btu/h/W

Heating at 17° F *3

Rated Capacity.....	8,100 Btu/h
Maximum Capacity.....	13,600 Btu/h
Rated Total Input	720 W
Maximum Total Input	1,900 W

Heating at 5° F *4

Maximum Capacity.....	13,600 Btu/h
Maximum Total Input	1,950 W

Rating Conditions:

- *1 Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB
- *1 Cooling | Outdoor: 95° F (35° C) DB / 75° F (24° C) WB
- *2 Heating at 47°F | Indoor: 70° F (21° C) DB / 60° F (16° C) WB
- *2 Heating at 47°F | Outdoor: 47° F (8° C) DB / 43° F (6° C) WB
- *3 Heating at 17° F | Indoor: 70° F (21° C) DB / 60° F (16° C) WB
- *3 Heating at 17° F | Outdoor: 17° F (-8° C) DB / 15° F (-9° C) WB
- *4 Heating at 5° F | Indoor: 70° F (21° C) DB / 60° F (16° C) WB
- *4 Heating at 5° F | Outdoor: 5° F (-15° C) DB / 5° F (-15° C) WB

Electrical Requirements

Power Supply	208 / 230V, 1-Phase, 60 Hz
Breaker Size	15 A

Voltage

Indoor - Outdoor S1-S2	AC 208 / 230V
Indoor - Outdoor S2-S3	DC +/- 24V
Indoor - Remote Controller	MKH1 DC 3V
	PAR-31MAA DC 12V
	PAC-YT53CRAU DC 12V

Operating Conditions

Cooling

Indoor Intake Air Temp. . . (Max.) 90° F (32° C) DB / 73° F (23° C) WB
(Min.) 67° F (19° C) DB / 57° F (14° C) WB
Outdoor Intake Air Temp. . . (Max.) 115° F (46° C) DB
(Min.) 14° F (-10° C) DB

Heating

Indoor Intake Air Temp. . . (Max.) 80° F (27° C) DB / 67° F (19° C) WB
(Min.) 70° F (21° C) DB / 60° F (16° C) WB
Outdoor Intake Air Temp. (Max.) 75° F (24° C) DB / 65° F (18° C) WB
(Min.) -13° F (-25° C) DB / -15° F (-26° C) WB**

** System cuts out at -18° F (-28° C) to avoid thermistor error, but recovers from cutout operation and automatically restarts at -13° F (-25° C).

Indoor Unit

MCA	1.0 A
Blower Motor (ECM).....	0.67 F.L.A.
Blower Motor Output	30 W

Airflow (Lo - Med - Hi - Super Hi - Powerful)

Cooling	137-167-221-304-398 Dry CFM
	117-143-190-261-342 Wet CFM
Heating	140-167-225-325-454 Dry CFM

Sound Pressure Level (Lo - Med - Hi - Super Hi - Powerful)

Cooling	21-24-29-36-41dB(A)
Heating	21-24-29-36-42 dB(A)

External Finish Color

Munsell 1.0Y 9.2/0.2

External Dimensions

Inches:	12 + 11/16 H x 36-7/16 W x 9-3/16 D
mm:	305 +17 H x 925 W x 234 D

Weight Unit

29 lbs. / 12 kg

Field Drainpipe Size O.D.

19/32 In. (15mm)

Outdoor Unit

MCA	11 A
Fan Motor (ECM)	0.50 F.L.A.

Sound Pressure Level

Cooling *1.....	49 dB(A)
Heating *2	51 dB(A)

External Finish Color

Munsell 3Y 7.8/1.1

Dimensions

Inches:.....	21-5/8 H x 31-1/2 W x 11-1/4 D
mm:.....	550 H x 800 W x 285 D

Weight

83 Lbs.

Refrigerant Type

R410A

Refrigerant Pipe

Gas Side O.D.....	3/8" x 9.52 mm
Liquid Side O.D.....	1/4" x 6.35 mm

Max. Refrigerant Pipe Length

Height Difference	40' / 12m
Length.....	65' / 20m

Connection Method

Indoor/Outdoor

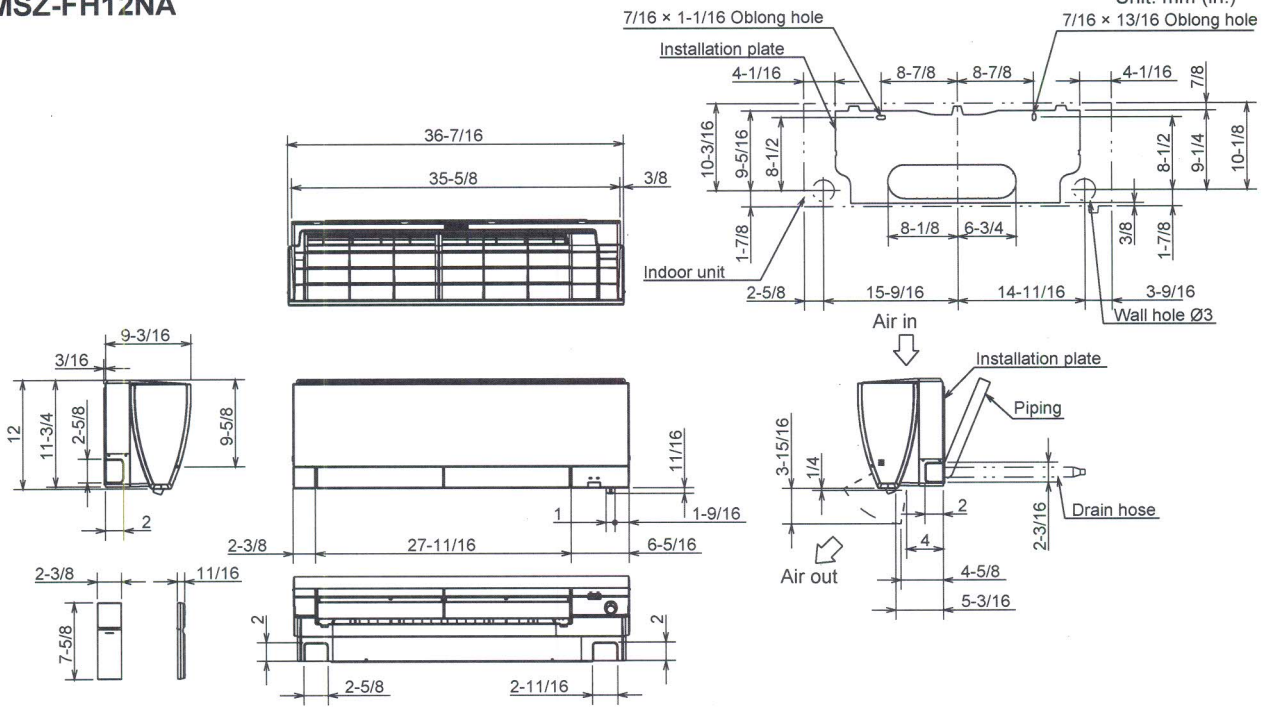
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Notes:

DIMENSIONS: MSZ-FH12NA & MUZ-FH12NA

MSZ-FH12NA

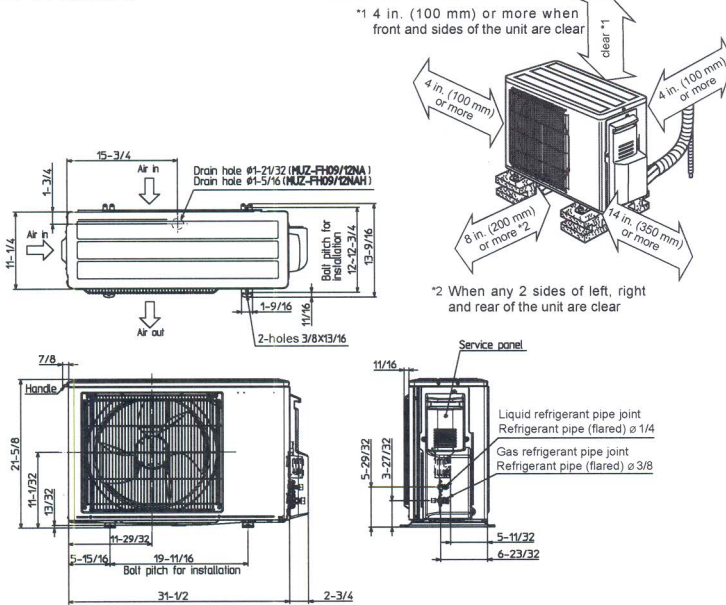
Unit: mm (in.)



MUZ-FH12NA

REQUIRED SPACE

Unit: mm (in.)



Intertek



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