MITSUBISHI ELECTRIC
Changes for the Better

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

Project Name: Luckett House
Project Number: Luckett House
Comment: HVAC for elevator modernization

THE APPROVED CONSTRUCTION PLANS AND ALL DOCUMENTS MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

4.1.1.7
Mitsubishi Electric
DiamondSystemBuilder
11/9/2021
1:33 PM

B-21-0922

MITSUBISHI ELECTRIC US, Inc.

Table of Contents

Quantities

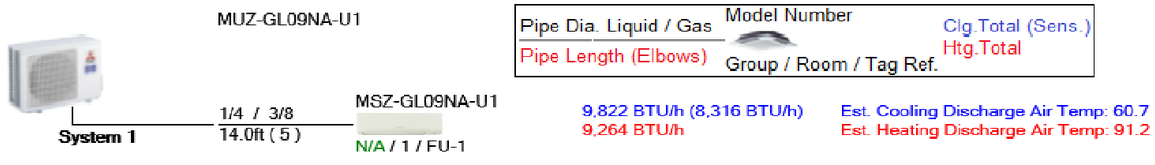
Qty	Model	Description	Price
1	stock controller	Wireless remote controller	Included with Indoor Unit
1	MUZ-GL09NA-U1	R410A MandS Series Outdoor Unit	
1	MSZ-GL09NA-U1	Wall -Mounted Indoor Unit	

Refrigerant Piping Materials

Pipe Size (inch)	Total Length (feet)	Number of Bends
3/8	14	5
1/4	14	5

Centralized System - 1 : System 1

Piping Diagram Image (Design View)



MITSUBISHI ELECTRIC TRANE HVAC US: 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)	Cooling Efficiency IEER/EER [SEER]	Heating COP @ 47°F [HSPF]	Nom System Connected Capacity (% of NOM)	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Refrig Pipe Dim High/Low Pressure (inch) (See Note 4)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Sound Pressure (dBA)	Electrical-Per Module 208/230 or [460V]				Notes / Options
																Voltage / Phase	MCA 208/230 or [460V]	RFS	MOCP	
System 1	CU-1	N/A	MUZ-GL09NA-U1		9,000.0	10,900.0	[24.60000038146 97]	[12.8]	100.0%	85.0	20.2	1/4 / 3/8	9,821.9	9,264.1	48/50	208/230V / 1-phase	9	15	15	1, 2, 3, 4, 5

Notes & Options:

1 Nominal cooling capacities are based on indoor coil EAT of 80/67°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 twinning.
5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layou

MITSUBISHI ELECTRIC TRANE HVAC US: 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 Entering Temp DB/WB (°F) / [Water in temp]	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	Corrected Capacity					Refrig Pipe Dim Liquid/Suction (inch)	Peak Fan Airflow (cfm) / [Design gpm G(US)/min]	Max Fan ESP Setting 208V/230V (IN WG)	Sound Pressure Per Fan Speed 208V/230V (dBA)	Voltage / Phase	Power Cooling 208V/230V (kW)	Power Heating 208V/230V (kW)	Electrical MCA/MFS	Notes / Options
									Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity (BTU/h)	Cooling Sensible Capacity (BTU/h)	Heating Diversity Full/Partial (See Note 5, 6)	Heating Capacity (BTU/h)									
System 1		FU-1	MSZ-GL09NA-U1	Wall -Mounted	9,000.0	10,900.0	80.0/67.0	70.0	FULL DEMAND	9,821.9	8,316.1	FULL DEMAND	9,264.1	3/8 / 1/4	406		19-22-30-37-43/19-22-30-37-43	208/230V/1-phase			Powered by Outdoor	1, 2, 3, 4, 5, 6

Notes & Options:

1 Nominal cooling capacities are based on indoor coil EAT of 80/67°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 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
4 See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.
5 Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply. It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (ful demand/partial demand) prior to generating this schedule.
6 It is recommended to always base heating corrected capacity on full demand.

M-SERIES

SUBMITTAL DATA: MSZ-GL09NA-U1 & MUZ-GL09NA-U1

9,000 BTU/H WALL-MOUNTED HEAT PUMP SYSTEM

MITSUBISHI ELECTRIC

Job Name: Luckett House	
System Reference: HVAC for elevator modernization	Date: 11/9/2021

Indoor Unit: MSZ-GL09NA-U1

Wireless Remote Controller

Outdoor Unit: MUZ-GL09NA-U1

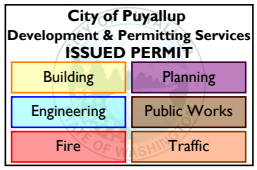
ACCESSORIES:

Indoor Unit

- ☐ Condensate Pump (BlueDiamond X87-711/721; 115/230V)
- ☐ Condensate Pump (Sauermann SI30-115/230; 115/230V)
- ☐ Anti-Allergy Enzyme Filter (MAC-408FT-E)
- ☐ Drain Pan Level Sensor (DPLS2)

Outdoor Unit

- ☐ Outdoor Mounting Pad (ULTRILITE1)
- ☐ Drain Pan Heater (MAC-640BH-U)
- ☐ 3-1/4" Mounting Base [Pair] (DSD-400P)
- ☐ Drain Pan Socket (MAC-860DS)
- ☐ Air Outlet Guide (MAC-889SG)
- ■ Wall Mounting Bracket (QSWB2000M-1)



Controls

- ☐ Wireless Controller (MHK1)
- ☐ Wired Remote Controller PAR-32MAA (Requires MAC-333IF-E)
- ☐ Wireless Interface for kumo cloud™ (PAC-USWHS002-WF-1)
- ☐ Thermostat Interface (PAC-US444CN-1)

SPECIFICATIONS:

Rated Conditions (Capacity / Input)		
Cooling[1]	Btu/h / W	9,000 / 585
Heating at 47° F[2]	Btu/h / W	10,900 / 720

Capacity Range		Minimum	Maximum
Cooling[1]	Btu/h	3,600	12,200
Heating at 47° F[2]	Btu/h	4,500	15,900
Heating at 17° F[3]	Btu/h	-	10,200
Heating at 5° F[4]	Btu/h	-	8,100

[1] Cooling | Indoor: 80° F(27° C)DB / 67° F(19° C)WB; 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; 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; 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; Outdoor: 5° F(-15° C) DB / 5° F(-15° C)WB
* Rating Conditions per AHRI Standard:

Operating Conditons (Indoor Intake Air Temp.) (Max./ Min.)	
Cooling[2]	90° F (32° C) DB / 67° F (19° C) DB
Heating	80° F (27° C) DB / 70° F (21° C) DB

Operating Conditons (Outdoor Intake Air Temp.) (Max./ Min.)	
Cooling[5]	115 F (46° C) DB / 14° F (-10° C) DB
Heating	75° F (24° C) DB / -4° F (-20° C) DB**

[5] Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
** System cuts out at -9° F (-27° C) to avoid thermistor error and automatically restarts at -4° F (-20° C).

AHRI Efficiency Ratings	
SEER / HSPF	24.6 / 12.8
COP at 47° F / 17° F	4.44 / 3.3

Energy Star®	Yes

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

Electrical Power Requirements	208 / 230V, 1-Phase, 60 Hz

Minimum Circuit Ampacity (MCA)		
Indoor / Outdoor	A	1 / 9

Indoor Unit		
Blower Motor (ECM)	F.L.A.	0.76
Blower Motor Output	W	30
SHF / Moisture Removal		0.820 / 1.5 pt./h
Field Drainpipe Size O.D.	In.(mm)	5/8 (15)

Outdoor Unit		
Compressor		DC INVERTER-driven Twin Rotary
Fan Motor (ECM)	F.L.A.	0.5

Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)			
Indoor (Cooling)	DRY	CFM	145-170-237-321-399
	WET		109-134-201-286-364
Indoor (Heating)	DRY		145-170-237-321-406
Outdoor			1,229 / 1,172

Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)			
Indoor	Cooling	dB(A)	19-22-30-37-43
	Heating		19-22-30-37-43
Outdoor	Cooling		48
	Heating		50

External Dimensions		
Indoor (H x W x D)	In.(mm)	11-5/8 x 31-7/16 x 9-1/8 (295 x 798 x 232)
Outdoor (H x W x D)		21-5/8 x 31-1/2 x 11-1/4 (550 x 800 x 285)

Net Weight		
Indoor	Lbs.(kg)	22 (10)
Outdoor		81 (37)

External Finish	
Indoor	Munsell 1.0Y 9.2 / 0.2
Outdoor	Munsell No. 3Y 7.8 / 1.1

Refrigerant	R410A; 2 lb. 5 oz.

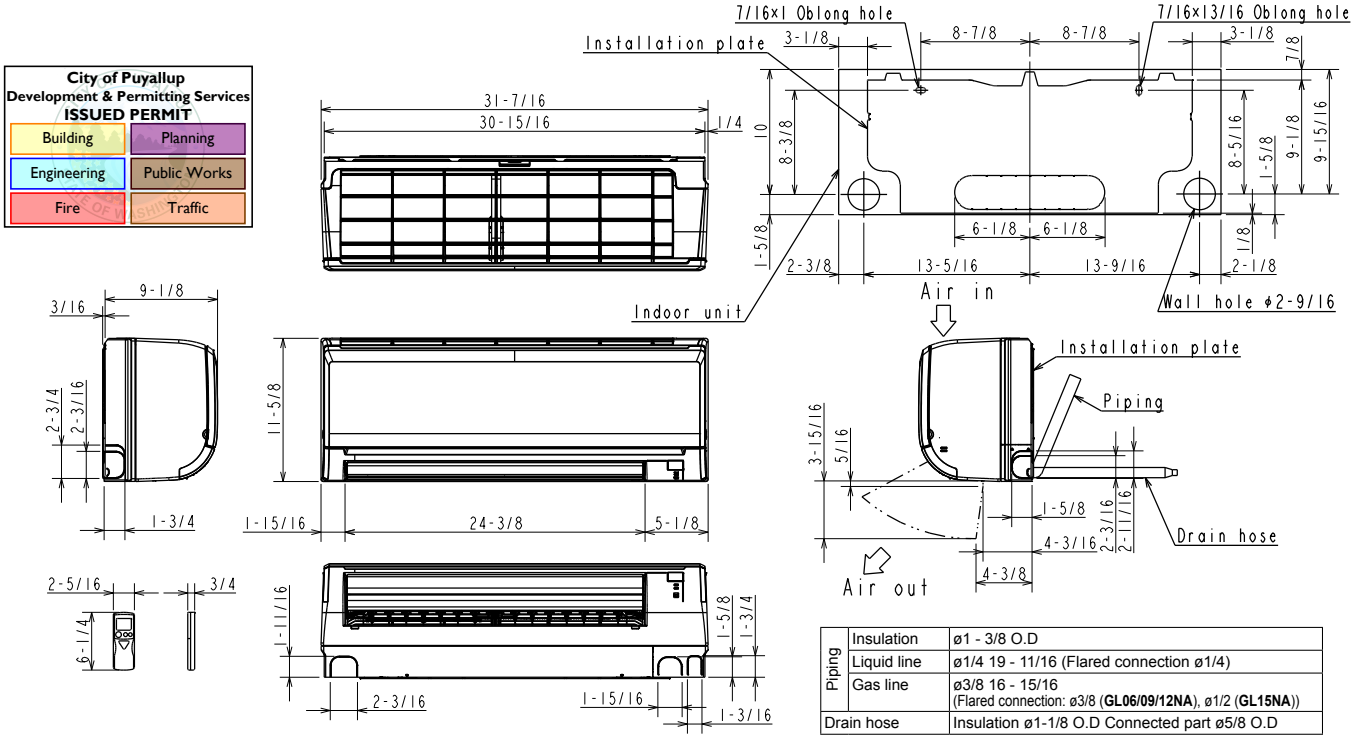
Refrigerant Piping (Flared)		
Liquid (High Pressure)	In.(mm)	1/4 (6.35)
Gas (Low Pressure)		3/8 (9.52)
Max. Total Refrigerant Pipe Length (Height Diff.)	Ft. (m)	40 (12)
Max. Total Refrigerant Pipe Length (Length.)		65 (20)

Specifications are subject to change without notice.

DIMENSIONS: MSZ-GL09NA-U1 & MUZ-GL09NA-U1

MSZ-GL09NA-U1

Unit: in. (mm)



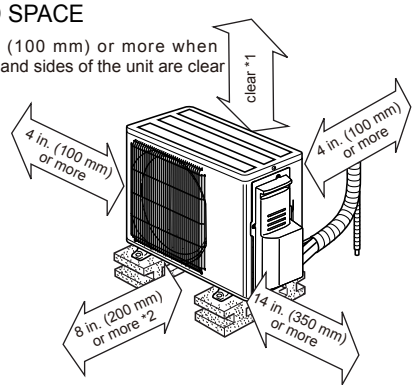
Piping	Insulation	ø1 - 3/8 O.D
	Liquid line	ø1/4 19 - 11/16 (Flared connection ø1/4)
	Gas line	ø3/8 16 - 15/16 (Flared connection: ø3/8 (**GL06/09/12NA**), ø1/2 (**GL15NA**))
Drain hose		Insulation ø1-1/8 O.D Connected part ø5/8 O.D

MUZ-GL09NA-U1

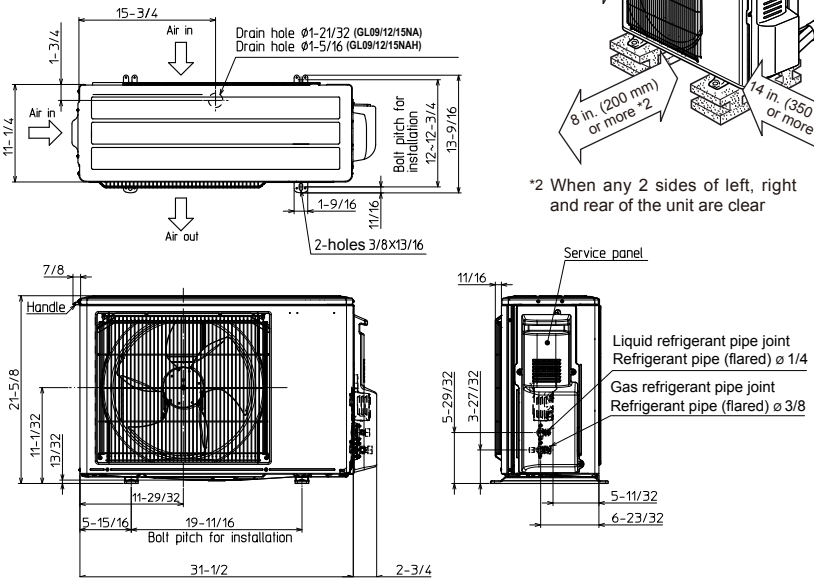
Unit: in. (mm)

REQUIRED SPACE

*1 4 in. (100 mm) or more when front and sides of the unit are clear



*2 When any 2 sides of left, right and rear of the unit are clear



MITSUBISHI ELECTRIC
COOLING & HEATING

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FORM# MSZ-GL09NA-U1 / MUZ-GL09NA-U1 - 201611