PKA-AL12NL & PUY-AK12NL
12,000 BTU/H WALL-MOUNTED INDOOR UNIT
12,000 BTU/H COOLING ONLY OUTDOOR UNIT

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:

System Reference: Date:

Indoor Unit PKA-AL12NL

Outdoor Unit PUY-AK12NL

INDOOR UNIT FEATURES
- Auto fan speed mode: Automatic adjustment of fan speed
- Ideal PKA spaces: Ideal for spaces such as server rooms, daycare centers, classrooms, churches, small offices, and more
- Light commercial: Units with this icon are suitable for light commercial applications such as small offices, restaurants, and retail.
- Multiple control options, including the comfort app for remote access, third-party interfaces, and both wired and wireless controllers
- Simple installation
- Single-zone: One outdoor unit connects to one indoor unit to control the comfort in a single space.
- Sleek, compact design
- Up and down swing-mode: An indoor unit with this capability can move air up and down throughout the room like an oscillating fan using the horizontal vanes.
- Vane settings: Vane setting for air flow direction control

OUTDOOR UNIT FEATURES
- Blue Fin Coating: An anti-corrosion treatment applied to the aluminum fins of the heat exchanger of the outdoor unit to protect against corrosion caused by salt, sulfur, and other airborne contaminants, especially in coastal and industrial areas.
- Continuous operation: 24-hour continuous operation (cooling mode)
- Fast restart
- High pressure protection
- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Low ambient cooling: Low ambient cooling down to -40°F providing 100% capacity (with wind baffles)
- Pre-charged refrigerant: 12k -30k BTU/h come pre-charged for ease of installation. 24k – 30k BTU/h are pre-charged to maximum line length of 225 feet. 12k – 18k BTU/h are pre-charged for up to 165 feet of line length. For units with a capacity of 36,000 BTU/h and above, additional refrigerant charges will be required.
- Seacoast protection: Seacoast Protection, made standard in the 2022 production, features a robust anti-corrosion system with phosphate and acrylic-enamel coated external panels, epoxy resin-coated fan motor support and separator assembly valve beds, and Blue Fin treatment for the heat exchanger coil. These components are rated for 2,000 hours of durability under ASTM B117 testing standards, ensuring longevity in corrosive coastal environments.
- Superior energy and operational efficiency

SPECIFICATIONS: PKA-AL12NL & PUY-AK12NL

Cooling at 95F[1]	Maximum Capacity	Btu/h	12,200
	Rated Capacity	Btu/h	12,000
	Minimum Capacity	Btu/h	4,300
	Maximum Power Input	W	830
	Rated Power Input	W	810
	Moisture Removal	Pints/h	3
	Sensible Heat Factor	-	0.73
	Power Factor [208V / 230V]	%	81 / 81
Efficiency	SEER2		21.1
	EER2[1]		14.8
	ENERGY STAR® Certified		Yes
Electrical	Voltage, Phase, Frequency	V AC / V AC, , Hz	208 / 230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 264
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	12-24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	20
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Indoor Unit	Fan Motor Output	W	30
	Airflow Rate at Cooling, Dry	CFM	215, 255, 320, 375
	Airflow Rate at Cooling, Wet	CFM	265, 290, 325, 385
	Sound Pressure Level [Cooling]	dB (A)	34, 37, 40, 43
	External Finish Color		0.7PB 9.2/0.4
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	35-11/32 x 9-11/32 x 11-25/32 [898 x 237 x 299]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	38-1/4 x 13-7/16 x 14-3/16 [970 x 340 x 360]
	Unit Weight	lbs [kg]	28 [12.70]
	Package Weight	lbs [kg]	32 [14.50]
	Fan Motor Type		DC Motor
IDU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	90, 73 / 66, 59
Outdoor Unit	MCA	A	16
	MOCP	A	27
	Fan Motor Output	W	51
	Airflow Rate Cooling	CFM	1,590
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes, Yes
	Sound Pressure Level, Cooling[1]	dB (A)	44
	Compressor Type		Twin Rotary
	Compressor Model		SRB140FQHMC□L1
	Compressor Oil [Type // Charge]	Type // oz	RM68EH // 16
	External Finish Color		Munsell No.3Y 7.8/1.1
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	34-19/64 x 11-13/16 x 24-13/16 [871 x 300 x 630]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-1/16 x 16-3/16 x 32-1/4 [941 x 411 x 819]
	Unit Weight	lbs [kg]	99 [45]
	Package Weight	lbs [kg]	112 [51]
ODU Operating Temp. Range	Cooling Intake Maximum Air Temp [Maximum / Minimum*]	°FDB	115 / 23
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs, oz	4, 6
	Maximum Pre-Charged Piping Length	ft [m]	165 [50]
	Additional Refrigerant Charge Per Additional Piping Length	oz/ft	0
Piping	Gas Pipe Size O.D. [Flared]	inch [mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	inch [mm]	1/4 [6.35]
	Maximum Piping Length	ft [m]	165 [50]
	Maximum Height Difference	ft [m]	100 [30]
	Maximum Number of Bends		15

NOTES
[1]Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)
* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
• Wind baffles required to operate below 23°F DB in cooling mode.
• Cooling-only system with advanced wind baffle: -40°F - 115°F.
• Refer to wind baffle documentation for further information.
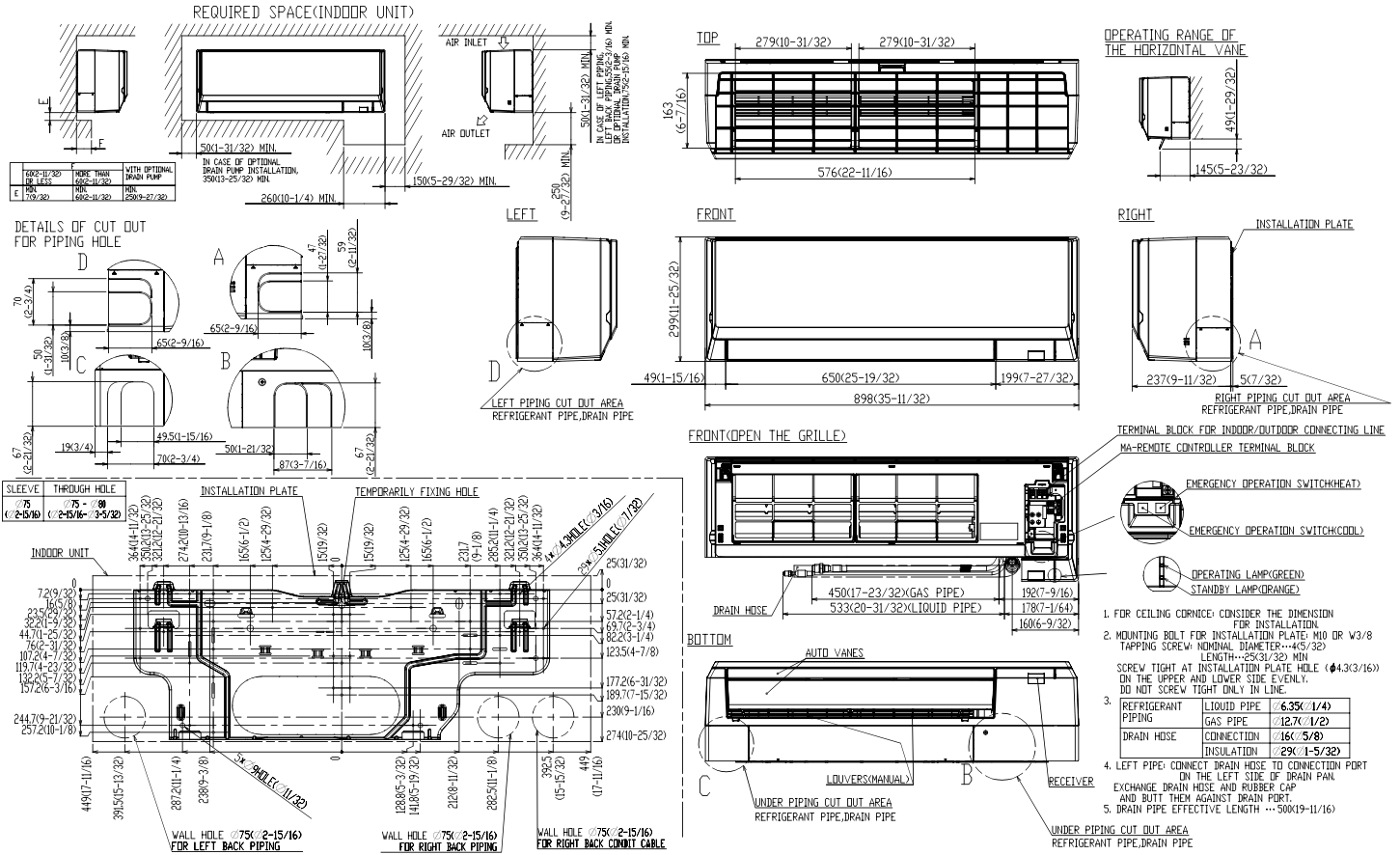** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures):

INDOOR UNIT ACCESSORIES: PKA-AL12NL

Category	Description	Model
Drain Hose	Flexible Mini-Split Drain Hose	DRX-16
Disconnect Switch	30A600VUL fits 2 X 4 utility box - Black	TAZ-MS303
	30A600VUL fits 2 X 4 utility box - White	TAZ-MS303W
Control Interface	Airzone Wired Blueface Controller Black	AZZBSBLUEZEROCN
	Airzone Wired Blueface Controller White	AZZBSBLUEZEROCB
	Airzone Wireless Lite Controller Black	AZZBSLITERN
	Airzone Wireless Lite Controller White	AZZBSLITERB
	Airzone Wireless Think Controller Black	AZZBSTHINKRN
	Airzone Wireless Think Controller White	AZZBSTHINKRB
	IT Extender for kumo station	PAC-WHS01IE-E
	kumo station for the Comfort app	PAC-WHS01HC-E
	Procon BACnet and Modbus Interface	PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	PAC-US445CN-1
	Wireless Interface Adapter for the Comfort app	PAC-USWHS002-WF-2
Condensate	Blue Diamond (Slim Fascia Kit) Condensate Pump w/ Reservoir & Sensor	X86-011
	Blue Diamond Advanced Mini Condensate Pump w Reservoir Sensor 208230V recommended	X87-721
	Blue Diamond MaxiBlue Advanced Mini Condensate Pump w Reservoir Sensor 110V up to 48000 BTUH recommended	X87-711
	Blue Diamond MegaBlue Advanced Condensate Pump w Reservoir Sensor	X87-835
	Blue Diamond MicroBlue Mini Condensate Pump 110208230V up to 18000 BTUH	X85-003
	Blue Diamond Sensor Extension Cable 15 Ft	C13-103
	Drain Pan Level SensorControl	SS610E
	Refco Condensate Pump 100-240 VAC	GOBI-II
	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	COMBI
	Sauermann Condensate Pump	SI30-230
Wired Remote Controller	Deluxe Wired MA Remote Controller [1]	PAR-42MAAUB
	Simple Direct Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller [1]	PAC-YT53CRAU-J
	Touch MA Wired Remote Controller [1]	PAR-CT01MAU-SB
Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
Lineset	100 x 1/4 x 100 1/2 Lineset Twin-Tube Insulation	MLS141212T-100
	15 x 1/4 x 15 1/2 Lineset Twin-Tube Insulation	MLS141212T-15
	30 x 1/4 x 30 1/2 Lineset Twin-Tube Insulation	MLS141212T-30
	50 x 1/4 x 50 1/2 Lineset Twin-Tube Insulation	MLS141212T-50
	65 x 1/4 x 65 1/2 Lineset Twin-Tube Insulation	MLS141212T-65
Wireless Remote Controller	Lockdown Bracket for Wireless Handheld Remote Controllers	RCMKP1CB
	RedLINK Wireless Remote Controller	MHK2
	Universal Wireless MA Handheld Remote Controller	PAR-FL32MA-E
	Universal Wireless Receiver for PAR-FL32MA-E	PAR-FA32MA-W
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Power Supplies and Auxiliary Components	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	CN24RELAY-KIT-CM3
Remote Sensor	Flush Mount Remote Temperature Sensor for SEZ SLZ SVZ and all P-Series models	PAC-USSEN002-FM-1
	Wall Mount Remote Temperature Sensor	PAC-SE41TS-E
	Wireless temperature and humidity sensor for the Comfort app	PAC-USWHS003-TH-1
NOTES		

OUTDOOR UNIT ACCESSORIES: PUY-AK12NL

Category	Description	Model
Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
Hail Guards	Hail Guard	HG-A5
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Control/Service Tool	ControlService Tool	PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	M21EC0397
	Maintenance Tool Interface	PAC-USCMS-MN-1
Stand	18 Single Fan Stand	QSMS1801M
	24 Single Fan Stand	QSMS2401M
	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1201M
Mounting Pad	Condensing Unit Mounting Pad 16 x 36 x 3	ULTRILITE1
Drain Socket	Drain Socket	MAC-871DS
Air Outlet Guide	Air Outlet Guide	PAC-SJ07SG-E
Wind Baffle	Front Wind Baffle	WB-PA4
	Rear Wind Baffle	WB-RE4
	Side Advanced Wind Baffle	WB-SD4
M-NET Converter	M-Net Interface for P-Series	PAC-SJ96MA-E
Snow/Rain Diverter	SnowRain Diverter	SRD-2
NOTES		

REQUIRED SPACE(INDOOR UNIT)

AIR INLET

AIR OUTLET

50(1-31/32) MIN.

IN CASE OF OPTIONAL DRAIN PUMP INSTALLATION, 350(13-25/32) MIN.

260(10-1/4) MIN.

150(5-29/32) MIN.

250 (9-27/32) MIN.

50(1-31/32) MIN. IN CASE OF LEFT PIPING, LEFT BACK PIPING,550(21-5/16) OR OPTIONAL DRAIN PUMP INSTALLATION,752(25-5/16) MIN

		WITH OPTIONAL DRAIN PUMP
E	6Φ2(1/32) OR LESS MIN. 7(9/32)	MORE THAN 6Φ2(1/32) MIN. 6Φ2(1/32)	MIN. 250(9-27/32)

TOP

279(10-31/32) 279(10-31/32)

163 (6-7/16)

576(22-11/16)

OPERATING RANGE OF THE HORIZONTAL VANE

49(1-29/32)

145(5-23/32)

DETAILS OF CUT OUT FOR PIPING HOLE

D
A
47 (1-27/32)
59 (2-11/32)
65(2-9/16)
100(3/8)

70 (2-3/4)
50 (1-31/32)
C
65(2-9/16)
B

67 (2-21/32)
19(3/4)
49.5(1-15/16)
70(2-3/4)
50(1-21/32)
87(3-7/16)
67 (2-21/32)

LEFT

D

LEFT PIPING CUT OUT AREA REFRIGERANT PIPE,DRAIN PIPE

FRONT

299(11-25/32)

49(1-15/16)
650(25-19/32)
199(7-27/32)
898(35-11/32)

RIGHT

INSTALLATION PLATE

A

237(9-11/32)
5(7/32)

RIGHT PIPING CUT OUT AREA REFRIGERANT PIPE,DRAIN PIPE

FRONT(OPEN THE GRILLE)

DRAIN HOSE

450(17-23/32)(GAS PIPE)
533(20-31/32)(LIQUID PIPE)

192(7-9/16)
178(7-1/64)
160(6-9/32)

BOTTOM

AUTO VANES

C
LOUVERS(MANUAL)
UNDER PIPING CUT OUT AREA REFRIGERANT PIPE,DRAIN PIPE

B

RECEIVER
UNDER PIPING CUT OUT AREA REFRIGERANT PIPE,DRAIN PIPE

TERMINAL BLOCK FOR INDOOR/OUTDOOR CONNECTING LINE
MA-REMOTE CONTROLLER TERMINAL BLOCK

EMERGENCY OPERATION SWITCH(HEAT)
EMERGENCY OPERATION SWITCH(COOL)
OPERATING LAMP(GREEN)
STANDBY LAMP(ORANGE)

SLEEVE	THROUGH HOLE
Φ75 Φ2-15/16	Φ75 - Φ80 Φ2-15/16 - Φ3-5/32

INDOOR UNIT

INSTALLATION PLATE
TEMPORARILY FIXING HOLE

36(1-13/32)
350(20-13/16)
212(12-21/32)
274(20-13/16)
231.7(9-1/8)
165(6-1/2)
125(4-29/32)
15(19/32)
15(19/32)
125(4-29/32)
165(6-1/2)
231.7 (9-1/8)
285.2(11-1/4)
322(12-21/32)
350(20-13/25)
36(1-13/32)
LEFT 4.3HOLE(3/16)
25(31/32)

7.2(9/32)
16(5/8)
23.5(29/32)
32.2(1-9/32)
44.7(1-25/32)
76.2(3-1/4)
107.2(4-7/32)
119.7(4-23/32)
132.2(5-7/32)
157.2(6-3/16)

25(31/32)
25(31/32)
57.2(2-1/4)
69.7(2-3/4)
82.2(3-1/4)
123.5(4-7/8)

177.2(6-31/32)
189.7(7-15/32)
230(9-1/16)
274(10-25/32)

244.7(9-21/32)
257.2(10-1/8)

449(7-11/16)
391.5(15-13/32)
287.2(11-1/4)
238(9-3/8)
SW 9HOLE(11/32)
128.8(5-3/32)
141.8(5-19/32)
212(8-11/32)
212(8-11/32)
282.5(11-1/8)
39.2.5 (15/32)
449 (17-11/16)

WALL HOLE Φ75(2-15/16) FOR LEFT BACK PIPING
WALL HOLE Φ75(2-15/16) FOR RIGHT BACK PIPING
WALL HOLE Φ75(2-15/16) FOR RIGHT BACK CONDIT CABLE

1. FOR CEILING CORNICE; CONSIDER THE DIMENSION FOR INSTALLATION.
2. MOUNTING BOLT FOR INSTALLATION PLATE: M10 OR W3/8 TAPPING SCREW: NOMINAL DIAMETER...4(5/32) LENGTH...25(31/32) MIN SCREW TIGHT AT INSTALLATION PLATE HOLE (Φ4.3(3/16)) ON THE UPPER AND LOWER SIDE EVENLY. DO NOT SCREW TIGHT ONLY IN LINE.

3.

REFRIGERANT PIPING	LIQUID PIPE	Φ6.35(1/4)
	GAS PIPE	Φ12.7(1/2)
DRAIN HOSE	CONNECTION	Φ16(5/8)
	INSULATION	Φ29(1-5/32)

4. LEFT PIPE; CONNECT DRAIN HOSE TO CONNECTION PORT ON THE LEFT SIDE OF DRAIN PAN. EXCHANGE DRAIN HOSE AND RUBBER CAP AND BUTT THEM AGAINST DRAIN PORT.
5. DRAIN PIPE EFFECTIVE LENGTH ...500(19-11/16)

FREE SPACE AROUND THE OUTDOOR UNIT (BASIC EXAMPLE)

BASICALLY OPEN

100mm<3-15/16> OR MORE AS LONG AS NO OBSTACLE IS PLACED ON THE REAR AND RIGHT-AND-LEFT SIDES OF THE UNIT

2 SIDES SHOULD BE OPEN IN THE RIGHT. LEFT AND REAR SIDE.

MIN.100mm <3-15/16>

MIN.350mm <13-25/32>

MIN.500mm <19-11/16>

MIN.100mm <3-15/16>

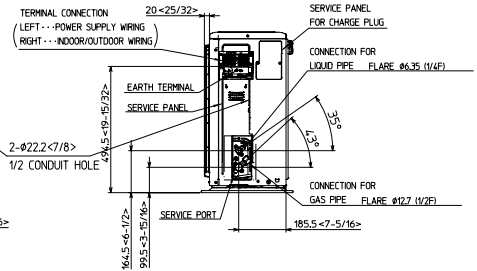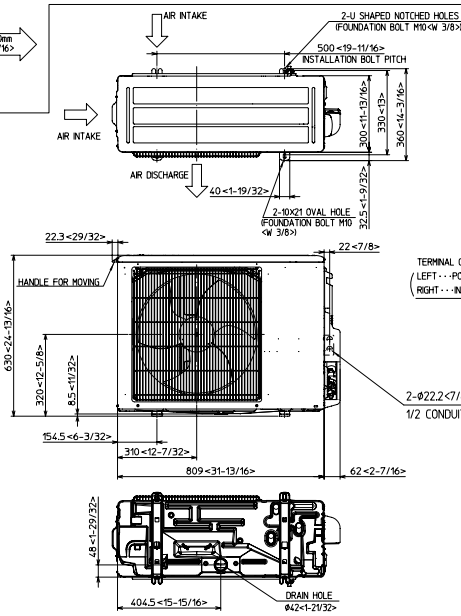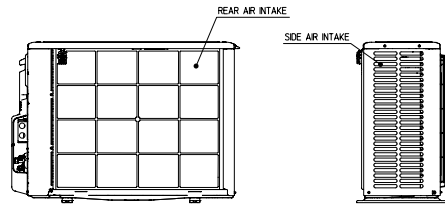## FOUNDATION BOLTS

PLEASE SECURE THE BASE OF THE UNIT FIRMLY USING M10<W3/8> FOUNDATION BOLTS AT FOUR PLACES WITH A NUT.
(BOLTS, WASHERS AND NUT MUST BE PURCHASED LOCALLY).

<FOUNDATION BOLT HEIGHT>

FOUNDATION

MAX. 18 <45/64>
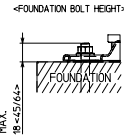
PIPING-WIRING DIRECTION

PIPING AND WIRING CONNECTION CAN BE MADE FROM THE REAR DIRECTION ONLY.

REAR AIR INTAKE

SIDE AIR INTAKE

AIR INTAKE

2-U SHAPED NOTCHED HOLES (FOUNDATION BOLT M10<W 3/8>)

500 <19-11/16> INSTALLATION BOLT PITCH

300 <11-13/16>

330 <13>

360 <14-3/16>

AIR DISCHARGE

40 <1-19/32>

2-10X21 OVAL HOLE (FOUNDATION BOLT M10 <W 3/8>)

32.5 <1-9/32>

22.3 <29/32>

HANDLE FOR MOVING

22 <7/8>

630 <24-13/16>

320 <12-5/8>

6.5 <11/32>

154.5 <6-3/32>

310 <12-7/32>

809 <31-13/16>

62 <2-7/16>

TERMINAL CONNECTION
LEFT···POWER SUPPLY WIRING
RIGHT···INDOOR/OUTDOOR WIRING

2-Ø22.2<7/8> 1/2 CONDUIT HOLE

EARTH TERMINAL

SERVICE PANEL

20 <25/32>

SERVICE PANEL FOR CHARGE PLUG

CONNECTION FOR LIQUID PIPE   FLARE Ø6.35 (1/4F)

494.5 <19-15/32>

164.5 <6-1/2>

99.5 <3-15/16>

SERVICE PORT

CONNECTION FOR GAS PIPE   FLARE Ø12.7 (1/2F)

185.5 <7-5/16>

48 <1-29/32>

404.5 <15-15/16>

DRAIN HOLE Ø42<1-21/32>

1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 https://mitsubishicomfort.com

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