

PCA-AK24NL & PUZ-AH24NL
21,800 BTU/H CEILING-SUSPENDED INDOOR UNIT
21,800 BTU/H HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



Indoor Unit.....PCA-AK24NL

Outdoor Unit.....PUZ-AH24NL



INDOOR UNIT FEATURES

- Auto fan speed mode: Automatic adjustment of fan speed
- Easy-to-clean, washable filter
- Filter status indicator
- Ideal PCA Spaces: Ideal for larger retail stores, classrooms, and restaurants
- Knock-out for outside-air intake
- Light commercial: Units with this icon are suitable for light commercial applications such as small offices, restaurants, and retail.
- Multi-Airflow settings: Airflow settings for high and low ceiling applications
- Multiple control options, including the comfort app for remote access, third-party interfaces, and both wired and wireless controllers
- Suspends from ceiling for quick and easy installation
- 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.

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
- High pressure/temperature 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 0°F providing 100% capacity
- 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: PCA-AK24NL & PUZ-AH24NL

Cooling at 95F ¹	Maximum Capacity	Btu/h	24,000
	Rated Capacity	Btu/h	21,800
	Minimum Capacity	Btu/h	9,800
	Maximum Power Input	W	2,120
	Rated Power Input	W	1,810
	Moisture Removal	Pints/h	4
	Sensible Heat Factor	-	0.8
Heating at 47F ²	Power Factor [208V / 230V]	%	95 / 95
	Maximum Capacity	Btu/h	30,800
	Rated Capacity	Btu/h	28,000
	Minimum Capacity	Btu/h	8,300
	Maximum Power Input	W	2,760
	Rated Power Input	W	2,413
Heating at 17F ³	Power Factor [208V / 230V]	%	96 / 96
	Maximum Capacity	Btu/h	15,300
	Rated Capacity	Btu/h	15,300
	Maximum Power Input	W	1,610
Heating at 5F ⁴	Rated Power Input	W	1,610
	Maximum Capacity	Btu/h	11,600
Heating at -4F ⁵	Maximum Power Input	W	1,660
	Maximum Capacity	Btu/h	10,400
Efficiency	SEER2		20.2
	EER2 ¹		12
	HSPF2 [IV]		9.3
	COP at 47°F ²		3.4
	COP at 17°F at Maximum Capacity ³		2.7
	COP at 5°F at Maximum Capacity ⁴		2
	COP at -4°F at Maximum Capacity ⁵		1.92
	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	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Indoor Unit	Fan Motor Output	W	95
	Airflow Rate at Cooling, Dry	CFM	495, 530, 565, 635
	Airflow Rate at Cooling, Wet	CFM	530, 565, 600, 670
	Airflow Rate at Heating, Dry	CFM	495, 530, 565, 635
	Sound Pressure Level [Cooling]	dB (A)	33, 35, 37, 40
	Sound Pressure Level [Heating]	dB (A)	33, 35, 37, 40
	External Finish Color		6.4Y 8.9/0.4
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	50-3/8 x 26-3/4 x 9-1/16 [1,280 x 680 x 230]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	53-3/16 x 29-15/16 x 12-5/8 [1,350 x 760 x 320]
	Unit Weight	lbs [kg]	71 [32]
	Package Weight	lbs [kg]	82 [37]
	Fan Motor Type		DC Motor
	IDU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB
Heating Intake Air Temp [Maximum / Minimum]		°FDB	82 / 50

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -4°F (Indoor: 70°F DB, 60°F WB // Outdoor: -4°F DB, -5°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.

• Heat pump system with wind baffle: 0°F - 115°F.

• Refer to wind baffle documentation for further information.

** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

SPECIFICATIONS: PCA-AK24NL & PUZ-AH24NL

Outdoor Unit	MCA	A	22
	MOCP	A	37
	Fan Motor Output	W	74
	Airflow Rate Cooling	CFM	1,940
	Airflow Rate Heating	CFM	1,940
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes, Yes
	Sound Pressure Level, Cooling ¹	dB (A)	49
	Sound Pressure Level, Heating ²	dB (A)	52
	Compressor Type		Twin Rotary
	Compressor Model		SRB172FQHMC-L1
	Compressor Oil [Type // Charge]	Type // oz	RM68EH // 23
	External Finish Color		Munsell No.3Y 7.8/1.1
	Base Pan Heater		Optional
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-13/32 x 14 x 37-1/8 [950 x 355 x 943]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	41-15/16 x 17-3/4 x 42-1/2 [1,065 x 450 x 1,079]
	Unit Weight	lbs [kg]	155 [70]
	Package Weight	lbs [kg]	179 [81]
ODU Operating Temp. Range	Cooling Intake Maximum Air Temp [Maximum / Minimum*]	°FDB	115 / 23
	Heating Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	70, 59 / -4, -4
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-13 / -4
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs, oz	7, 11
	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]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	inch [mm]	3/8 [9.52]
	Maximum Piping Length	ft [m]	165 [50]
	Maximum Height Difference	ft [m]	100 [30]
	Maximum Number of Bends		15

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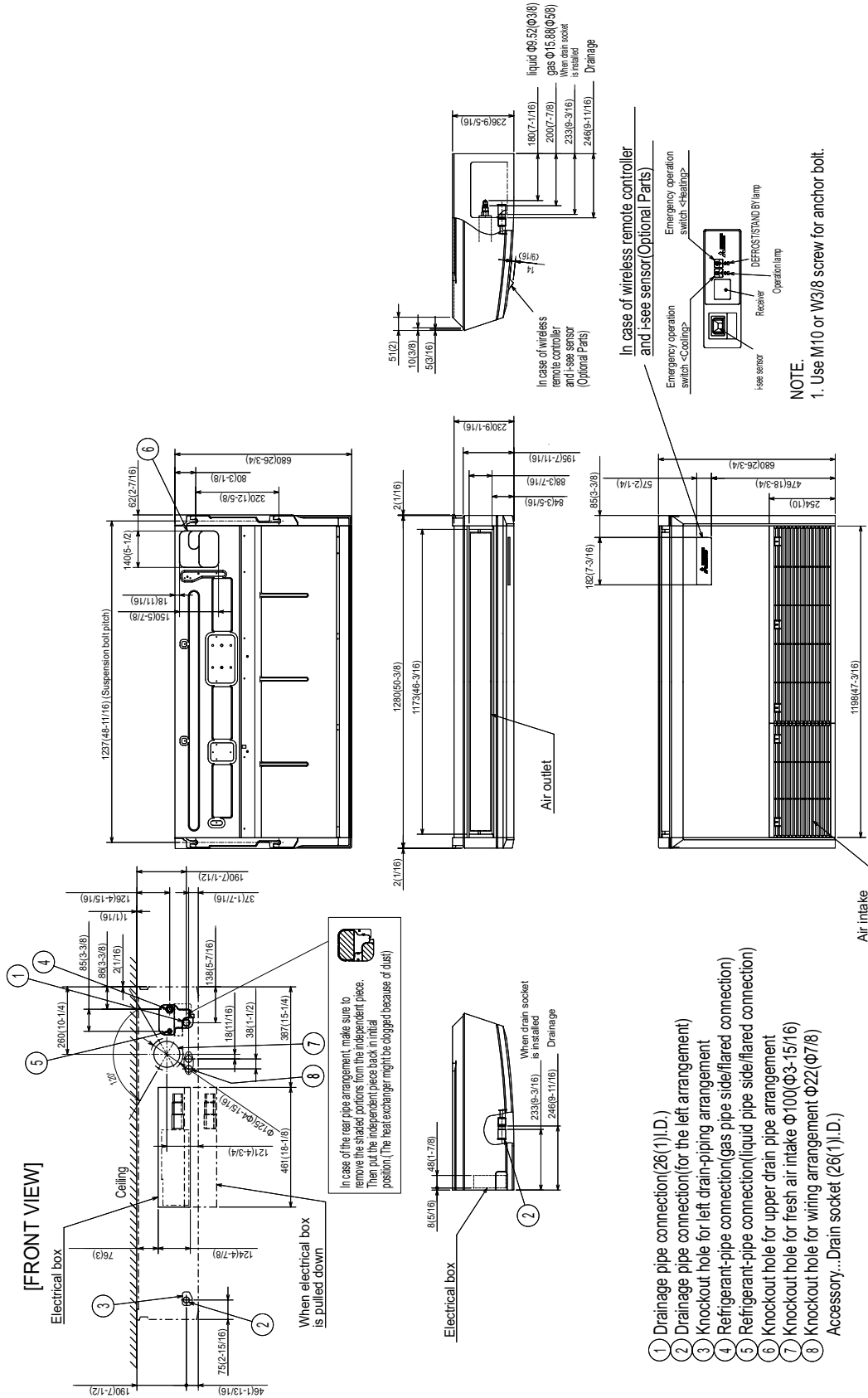
INDOOR UNIT ACCESSORIES: PCA-AK24NL

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
	Operation and Error Status Output Adapter ¹	PAC-SF40RM-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 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 Sensor Extension Cable 15 Ft	C13-103
	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	COMBI
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
Lineset	10 x 3/8 x 10 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-10
	100 x 3/8 x 100 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-100
	15 x 3/8 x 15 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-15
	30 x 3/8 x 30 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-30
	50 x 3/8 x 50 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-50
	65 x 3/8 x 65 x 5/8 Lineset Twin-Tube Insulation	MPLS385812T-65
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
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
	Wireless Handheld Controller kit with Receiver and i-See Sensor for Ceiling Suspended Models	PAR-SA92MW-E
	Wireless Handheld Controller kit with Receiver for PCA models	PAR-SL93B-E
Disconnect Switch	30A600VUL fits 2 X 4 utility box - Black	TAZ-MS303
	30A600VUL fits 2 X 4 utility box - White	TAZ-MS303W
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
Power Supplies and Auxiliary Components	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	CN24RELAY-KIT-CM3
Filter	65 Medium Efficiency Filter MERV 8	PAC-SH89KF-E
NOTES		
¹ Unable to use with Wireless Remote Controller		

OUTDOOR UNIT ACCESSORIES: PUZ-AH24NL

Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
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	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
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
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Wind Baffle	Front Wind Baffle	WB-PA5
	Rear Wind Baffle	WB-RE5
	Side Advanced Wind Baffle	WB-SD5
M-NET Converter	M-Net Interface for P-Series	PAC-SJ95MA-E
Air Outlet Guide	Air Outlet Guide 1 Piece	PAC-SG59SG-E
Mounting Pad	Condensing Unit Mounting Pad 24 x 42 x 3	ULTRILITE2
Hail Guards	Hail Guard	HG-A6
Drain Socket	Drain Socket	PAC-SG61DS-E
Control/Service Tool	ControlService Tool	PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	M21EC0397
Optional Defrost Heater	Optional Defrost Heater	PAC-SK62BH-E
Centralized Drain Pan	Centralized Drain Pan	PAC-SG64DP-E
Snow/Rain Diverter	SnowRain Diverter	SRD-4
NOTES		

INDOOR UNIT DIMENSIONS: PCA-AK24NL

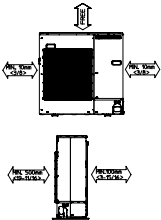


- ① Drainage pipe connection(26(1)I.D.)
 - ② Drainage pipe connection(for the left arrangement)
 - ③ Knockout hole for left drain-piping arrangement
 - ④ Refrigerant-pipe connection(gas pipe side/flared connection)
 - ⑤ Refrigerant-pipe connection(liquid pipe side/flared connection)
 - ⑥ Knockout hole for upper drain pipe arrangement
 - ⑦ Knockout hole for fresh air intake $\Phi 100(\Phi 3-15/16)$
 - ⑧ Knockout hole for wiring arrangement $\Phi 22(\Phi 7/8)$
- Accessory...Drain socket (26(1)I.D.)

OUTDOOR UNIT DIMENSIONS: PUZ-AH24NL

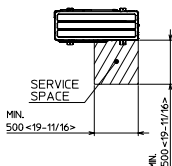
1 FREE SPACE (AROUND THE UNIT)

THE DIAGRAM BELOW SHOWS A BASIC EXAMPLE. EXPLANATION OF PARTICULAR DETAILS ARE GIVEN IN THE INSTALLATION MANUALS ETC.



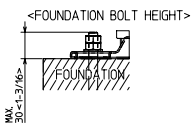
2 SERVICE SPACE

DIMENSIONS OF SPACE NEEDED FOR SERVICE ACCESS ARE SHOWN IN THE BELOW DIAGRAM.



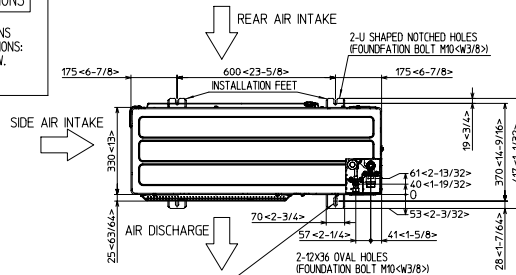
3 FOUNDATION BOLTS

PLEASE SECURE THE BASE OF THE UNIT FIRMLY USING M10\timesW3/8\times FOUNDATION BOLTS AT FOUR PLACES WITH DOUBLE NUTS. BOLTS, WASHERS AND NUT MUST BE PURCHASED LOCALLY.



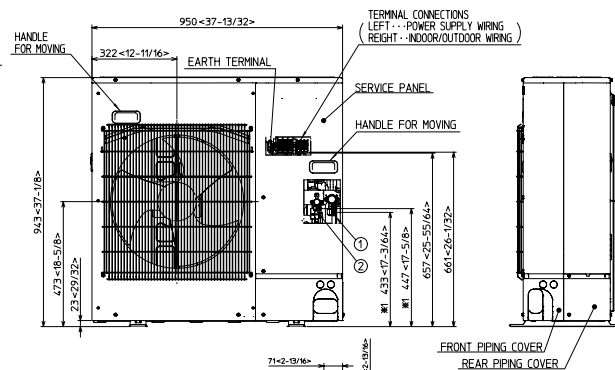
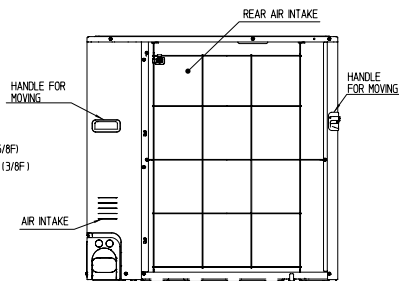
4 PIPING-WIRING DIRECTIONS

PIPING AND WIRING CONNECTIONS CAN BE MADE FROM 4 DIRECTIONS: FRONT, RIGHT, REAR AND BELOW.

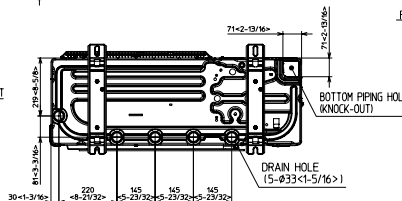
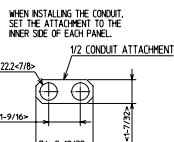
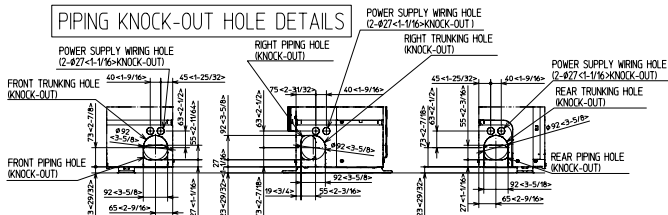


EXAMPLE OF NOTES

- ① --- REFRIGERANT GAS PIPE CONNECTION (FLARE) #15.88 (5/8F)
- ② --- REFRIGERANT LIQUID PIPE CONNECTION (FLARE) # 9.52 (3/8F)
- 1 --- INDICATION OF STOP VALVE CONNECTION LOCATION.



PIPING KNOCK-OUT HOLE DETAILS



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