TPVA0A0421AA70A & TRUZH0421KA10NA
42,000 BTU/H MULTI-POSITION AIR HANDLER
42,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR

Job Name:	
System Reference:	Date:

Indoor Unit TPVA0A0421AA70A

Outdoor Unit TRUZH0421KA10NA

INDOOR UNIT FEATURES

- Ducted air handler provides a solution to cool and heat large zones
- Highly efficient totally enclosed ECM motor
- Selectable external static pressure: 0.30, 0.50 and 0.80 in.WG with 3 fan speeds at each static setting
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency
- Positive pressure cabinet with air leakage of less than 1.0% at 1.0 in.WG
- Unique blow through design allows simple coil cleaning when the blower is removed
- Multi-position installation: horizontal (left or right), vertical (up or down). For downflow configurations, the CMA-1 is recommended for proper management of condensate to prevent water blow-off in certain conditions
- Optional electric heat kit for additional heat capacity
- Optional humidifier control and ERV control
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 100 ft.
- High pressure/temperature protection
- Built-in base pan heater
- Flash injection circuit provides efficient high heating capacities at low ambient temperatures

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SPECIFICATIONS: TPVA0A0421AA70A & TRUZH0421KA10NA

Cooling at 95°F[1]	Maximum Capacity	BTU/H	42,000
	Rated Capacity	BTU/H	42,000
	Minimum Capacity	BTU/H	17,000
	Maximum Power Input	W	3,960
	Rated Power Input	W	3,960
	Moisture Removal	Pints/h	5.3
	Sensible Heat Factor		0.86
	Power Factor [208V / 230V]	%	92.0 / 92.0
Heating at 47°F[2]	Maximum Capacity	BTU/H	54,000
	Rated Capacity	BTU/H	48,000
	Minimum Capacity	BTU/H	23,900
	Maximum Power Input	W	4,570
	Rated Power Input	W	3,850
	Power Factor [208V / 230V]	%	92.0 / 92.0
Heating at 17°F[3]	Maximum Capacity	BTU/H	48,000
	Rated Capacity	BTU/H	38,500
	Maximum Power Input	W	6,635
	Rated Power Input	W	4,925
Heating at 5°F[4]	Maximum Capacity	BTU/H	48,000
	Maximum Power Input	W	6,865
Heating at -13°F[7]	Maximum Capacity	BTU/H	38,400
Efficiency	SEER2		15.4
	EER2[1]		9.8
	HSPF2 [IV]		9.3
	COP at 47°F[2]		3.7
	COP at 17°F at Maximum Capacity[3]		2.1
	COP at 5°F at Maximum Capacity[4]		1.9
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Oudoor)	A	40
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	5.5
	Fan Motor Full Load Amperage	A	4.50
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	1,040–1,262–1,485
	Airflow Rate at Heating, Dry	CFM	1,040–1,262–1,485
	Sound Pressure Level [Cooling]	dB[A]	36–40–44
	Sound Pressure Level [Heating]	dB[A]	36–40–44
	External Static Pressure	in.WG	0.30–0.5–0.8
	Drain Pipe Size	In. [mm]	3/4 FPT [19.05]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized steel cabinet-Powder coated Slate Gray
	Unit Dimensions	W x D x H: In. [mm]	25 x 21-5/8 x 59-1/2 [635 x 548 x 1,511]
	Package Dimensions	W x D x H: In. [mm]	13-7/16 x 34-11/16 x 65 [340 x 880 x 1,650]
	Unit Weight	Lbs. [kg]	172 [78]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
	[7]Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
- Wind baffles required to operate below 23°F DB in cooling mode.
- 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 to avoid thermistor error and automatically restarts at these temperatures.

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Outdoor Unit	MCA	A	36.0
	MOCP	A	60
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	3319 / 3319
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling[1]	dB(A)	49
	Sound Pressure Level, Heating[2]	dB(A)	51
	Compressor Type		Scroll
	Compressor Model		ANB42FJTMT
	Compressor Rated Load Amps	A	19
	Compressor Locked Rotor Amps	A	28.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 1.7,57
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	41-5/16 x 14-3/16 x 52-11/16 [1050 x 360 x 1338]
	Package Dimensions	W x D x H: In. [mm]	43 x 18 x 57 [1110 x 480 x 1440]
	Unit Weight	Lbs. [kg]	283 [128]
	Package Weight	Lbs. [kg]	307 [139]
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -13 DB, -13 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	13.0, 4.0
	Maximum Pre-Charged Piping Length	Ft. [m]	100.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	.7 [56]
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]	245 [75]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
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Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
	[7]Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
- Wind baffles required to operate below 23°F DB in cooling mode.
- 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):
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INDOOR UNIT ACCESSORIES: TPVA0A0421AA70A

Control Interface	3-Pin Connector	☐ PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	☐ AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	☐ AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	☐ AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	☐ AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	☐ AZZBSTHINKRB
	CN24 Relay Kit	☐ CN24RELAY-KIT-CM3
	Connector cable for remote display	☐ PAC-SA88HA-EP
	IT Extender	☐ PAC-WHS01IE-E
	kumo station® for kumo cloud®	☐ TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Remote Operation Adapter‡	☐ PAC-SF40RM-E
	Thermostat Interface	☐ PAC-US444CN-1
	Thermostat Interface	☐ PAC-US445CN-1
	USNAP Adapter	☐ PAC-WHS01UP-E
Remote Sensor	Flush Mount Remote Temperature Sensor	☐ PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	☐ PAC-USSEN001-FM-1
	Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	☐ TAR-40MAAU
	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller†	☐ TAC-YT53CRAU-J
	Touch MA Controller†	☐ TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	☐ MHK2
	Lockdown bracket for remote controller	☐ RCMKP1CB
	Wireless MA Receiver	☐ PAR-SR32MA-E
	Wireless MA Remote Controller	☐ TAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	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 120,000 BTU/H	☐ COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	☐ CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	☐ CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2” X 4” utility box] - Black	☐ TAZ-MS303
	(30A/600V/UL) [fits 2” X 4” utility box] - White	☐ TAZ-MS303W
Downflow Kit	Condensate Management Kit for downflow installation	☐ CMA-1
Electric Heat Lockout	Electric Heat Lockout	☐ ETC-211020-MIT
Electric Kit Heats	10kW Electric Heater	☐ EH10-MPA-LB
	15kW Electric Heater	☐ EH15-MPAS-LB
	17kW Electric Heater	☐ EH17-MPAS-LB
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
Terminal Block	Separate Terminal Power Block	☐ SPTB1

NOTES:
‡PAC-SF40RM-E (Unable to use with wireless remote controller)

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OUTDOOR UNIT ACCESSORIES: TRUZH0421KA10NA

Air Outlet Guide	Air Outlet Guide (1 Piece)	☐ PAC-SH96SG-E (two pieces are required)
Centralized Drain Pan	Central Drain Pan	☐ PAC-SH97DP-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
Hail Guards	Hail Guard	☐ HG-A2
M-NET Converter	M-NET Converter	☐ PAC-SJ85MA-E
	M-NET Converter	☐ PAC-SJ95MA-E
Mounting Pad	Condensing Unit Mounting Pad: 24” x 42” x 3”	☐ ULTRILITE2
Optional Defrost Heater	Optional Defrost Heater	☐ PAC-SJ20BH-E
Stand	18” Dual Fan Stand	☐ QSMS1802M
	24” Dual Fan Stand	☐ QSMS2402M
	Condenser Wall Bracket	☐ QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	☐ QSWBSS
	Outdoor Unit Stand — 12” High	☐ QSMS1202M
Wind Baffle	Front Wind Baffle	☐ WB-PA3 (two pieces are required)

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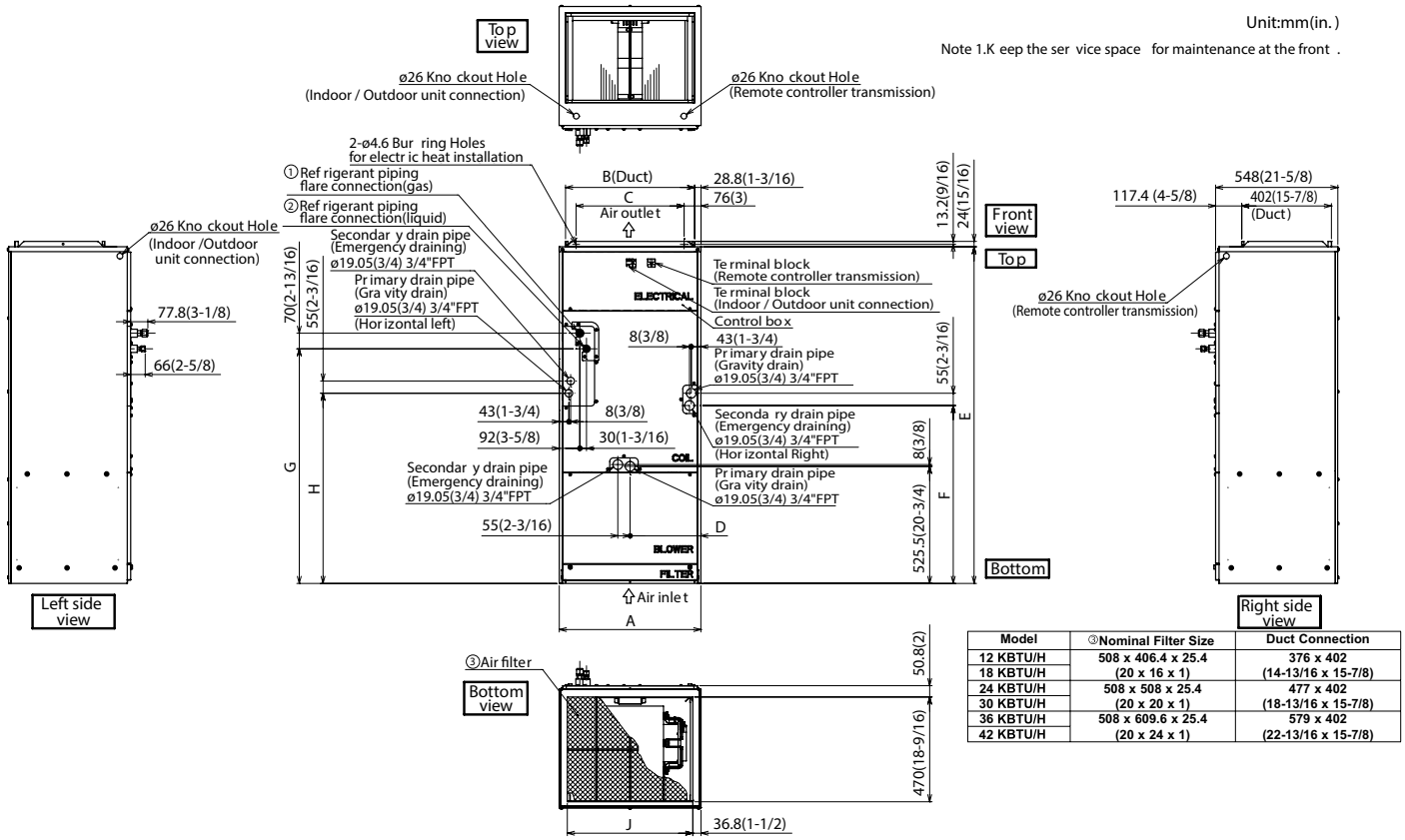
INDOOR UNIT DIMENSIONS: TPVA0A0421AA70A



Model	③Nominal Filter Size	Duct Connection
12 KBTU/H 18 KBTU/H	508 x 406.4 x 25.4 (20 x 16 x 1)	376 x 402 (14-13/16 x 15-7/8)
24 KBTU/H 30 KBTU/H	508 x 508 x 25.4 (20 x 20 x 1)	477 x 402 (18-13/16 x 15-7/8)
36 KBTU/H 42 KBTU/H	508 x 609.6 x 25.4 (20 x 24 x 1)	579 x 402 (22-13/16 x 15-7/8)

Unit: mm (in.)

Model	A	B	C	D	E	F	G	H	J	①Gas Pipe	②Liquid Pipe
12 KBTU/H 18 KBTU/H	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1275 (50-1/4)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	Φ 12.7 (1/2)	Φ 6.35 (1/4)
24 KBTU/H 30 KBTU/H	534 (21)	477 (18-13/16)	382.6 (15-1/8)	266.5 (10-1/2)	1378 (54-1/4)	737 (29-1/16)	953.5 (37-9/16)	792 (31-3/16)	461 (18-3/16)	Φ 15.88 (5/8)	Φ 9.52 (3/8)
36 KBTU/H 42 KBTU/H	635 (25)	579 (22-13/16)	484.6 (19-1/8)	317.5 (12-1/2)	1511 (59-1/2)	798.5 (31-7/16)	1053 (41-1/2)	853.5 (33-5/8)	563 (22-3/16)		

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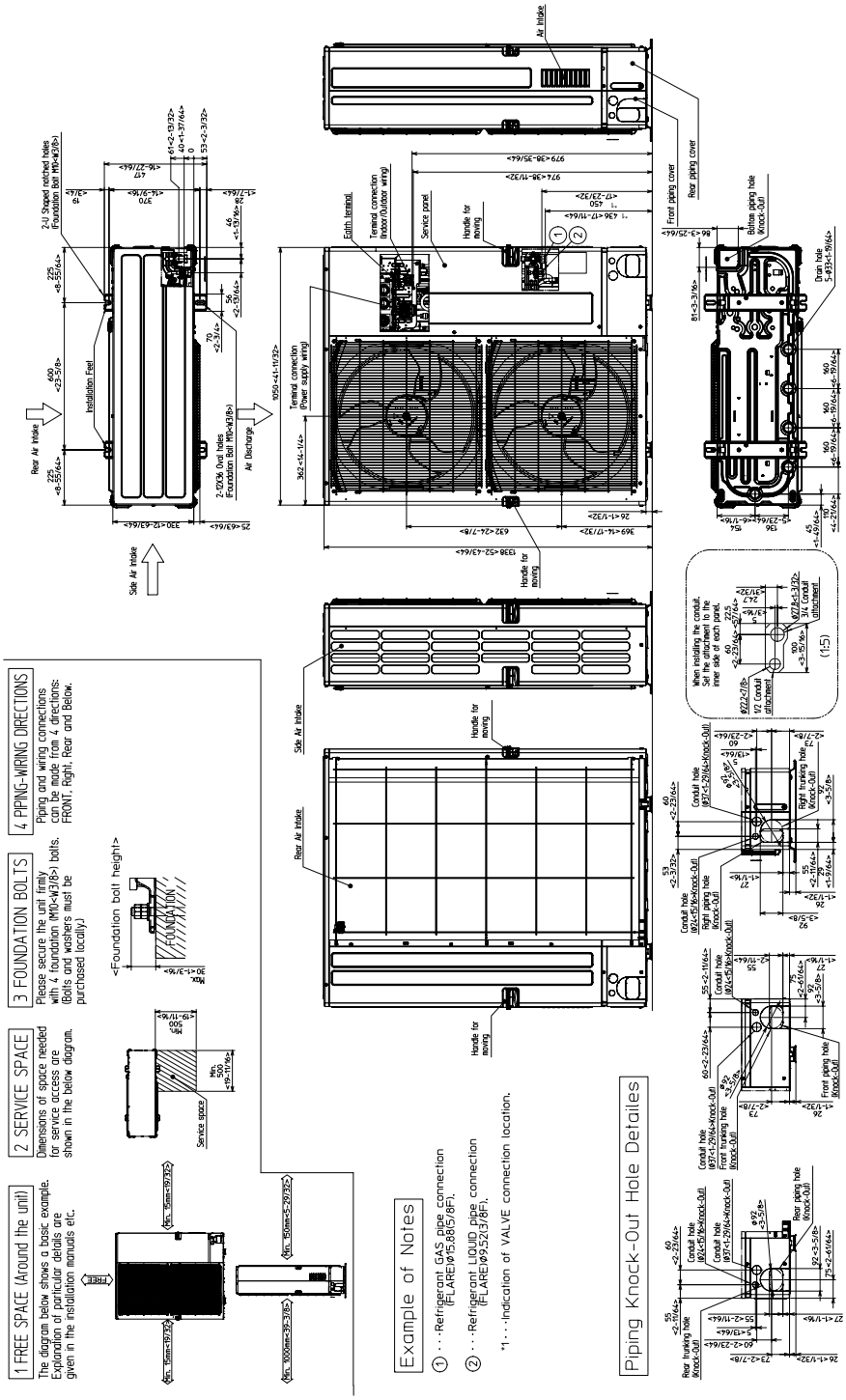
OUTDOOR UNIT DIMENSIONS: TRUZH0421KA10NA

Unit: mm<in>



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