

TPLA0A0121EA80A & TRUZA0121KA70NA
12,000 BTU/H 3' X 3' CEILING CASSETTE
12,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR



Job Name:

System Reference:

Date:



Indoor Unit.....TPLA0A0121EA80A

Outdoor Unit.....TRUZA0121KA70NA

INDOOR UNIT FEATURES

- Space-efficient ductless installation
- Equipped with 3D i-see Sensor® for enhanced comfort and energy efficiency
- Airflow settings for high and low ceiling applications
- Individual vane settings for direct/indirect airflow control or variable airflow patterns
- Knockouts for outside-air intake and branch-duct run
- Filter indicator signal
- Easy-to-clean, washable filter (optional high-efficiency filter available - requires multi-function casement)
- Built-in condensate lift mechanism
- Ideal for retail shops, classrooms, office spaces, conference centers, building lobbies, and more
- 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
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection*
 - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
 - Fan Motor Support: Epoxy resin coating (at edge face)
 - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
 - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
 - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

*Seacoast protection standard from 2022 production

SPECIFICATIONS: TPLA0A0121EA80A & TRUZA0121KA70NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	12,000
	Rated Capacity	BTU/H	12,000
	Minimum Capacity	BTU/H	5,800
	Maximum Power Input	W	730
	Rated Power Input	W	730
	Moisture Removal	Pints/h	1.2
	Sensible Heat Factor		0.89
	Power Factor [208V / 230V]	%	93.5 / 93.5
Heating at 47°F ²	Maximum Capacity	BTU/H	20,000
	Rated Capacity	BTU/H	14,000
	Minimum Capacity	BTU/H	5,500
	Maximum Power Input	W	1,500
	Rated Power Input	W	830
	Power Factor [208V / 230V]	%	95.0 / 95.0
Heating at 17°F ³	Maximum Capacity	BTU/H	12,200
	Rated Capacity	BTU/H	10,100
	Maximum Power Input	W	1,200
	Rated Power Input	W	1,170
Efficiency	SEER2		26.9
	EER2 ¹		16.4
	HSPF2 [I/V]		10.9
	COP at 47°F ²		4.94
	COP at 17°F at Maximum Capacity ³		2.98
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 (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	1.0
	Fan Motor Full Load Amperage	A	0.28
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	370–460–490–530
	Airflow Rate at Cooling, Wet	CFM	340–420–450–490
	Airflow Rate at Heating, Dry	CFM	370–460–490–530
	Sound Pressure Level [Cooling]	dB[A]	26–27–29–30
	Sound Pressure Level [Heating]	dB[A]	26–27–29–30
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	33-7/16 [850]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 6.4Y 8.9/0.4
	Unit Dimensions	W x D x H: In. [mm]	33-1/16 x 33-1/16 x 10-3/16 [840 x 840 x 258]
	Package Dimensions	W x D x H: In. [mm]	34-19/64 x 35-35/64 x 15 [871 x 903 x 381]
	Unit Weight	Lbs. [kg]	46 [21]
	Package Weight	Lbs. [kg]	77 [34.8]
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
------------	---	----	----------------------------

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » 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 to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 12U*****

SPECIFICATIONS: TPLA0A0121EA80A & TRUZA0121KA70NA

Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		Linear expansive valve
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling ¹	dB(A)	44
	Sound Pressure Level, Heating ²	dB(A)	46
	Compressor Type		DC INVERTER-driven Twin Rotary
	Compressor Model		SNB092FQCMC
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 12
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
	Unit Dimensions	W x D x H: In. [mm]	31-13/16+2-7/16 x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]
	Package Dimensions	W x D x H: In. [mm]	38 x 17 x 33 [941 x 411 x 819]
	Unit Weight	Lbs. [kg]	93 [42]
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 / 12 DB, 10 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-13 / -4
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 7.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	1 [19]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	100 [30]
	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
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
---	----	----------------------------

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » 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 to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 12U*****

INDOOR UNIT ACCESSORIES: TPLA0A0121EA80A

Control Interface	Airzone Wired Lite Controller (White)	☐ AZZBSLITECB
	Airzone Wireless Lite Controller (White)	☐ AZZBSLITERB
	Airzone Wireless Think Controller (White)	☐ AZZBSTHINKRB
	Airzone ZBS Wired Think Controller White	☐ AZZBSTHINKCB
	Backup Heat Relay Kit Adapter for CN24 or CN152 on ducted models	☐ CN24RELAY-KIT-CM3
	IT Extender for kumo station™	☐ PAC-WHS01IE-E
	kumo station™ for kumo cloud®	☐ TAC-WHS01HC-E
	On/Off Input Adapter for CN32 and Forced Fan Operation Input Adapter for SWE	☐ PAC-715AD
	Operation and Error Status Output Adapter	☐ PAC-SF40RM-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	☐ PAC-US445CN-1
	USNAP Adapter for Demand Response	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
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 kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller	☐ TAC-YT53CRAU-J
	Touch MA Wired Remote Controller	☐ TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller & Receiver kit	☐ MHK2
	Lockdown Bracket for Wireless Handheld Remote Controllers	☐ RCMKP1CB
	Universal Wireless MA Handheld Remote Controller	☐ TAR-FL32MA-E
	Universal Wireless Receiver for PAR-FL32MA-E	☐ PAR-SR32MA-E
	Wireless Handheld Remote Controller for SLZ, PLA, and PLFY models	☐ PAR-SL101A-E
	Wireless Receiver for PAR-SL101A-E on PLA-EA7 and PLFY-NEMU models	☐ PAR-SR4LU-E
Casement	Multi-function Casement	☐ PAC-SJ41TM-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H	☐ X86-003
	Blue Diamond Sensor Extension Cable — 15 Ft.	☐ C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	☐ COMBI
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
Filter	High Efficiency Filter Element**	☐ PAC-SH59KF-E
i-see Sensor® Panel	Grille with 3D i-see Sensor® (required)	☒ TLP-41EAEU
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
Shutter Plate	Shutter Plate	☐ PAC-SJ37SP-E
Space Panel	Space Panel	☐ PAC-SJ38AS-E

NOTES:

*PAC-SF40RM-E (Unable to use with wireless remote controller)

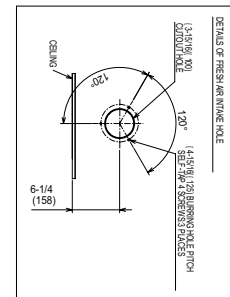
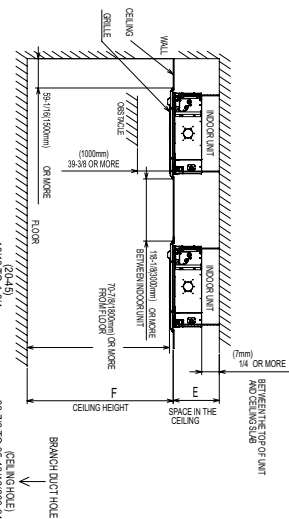
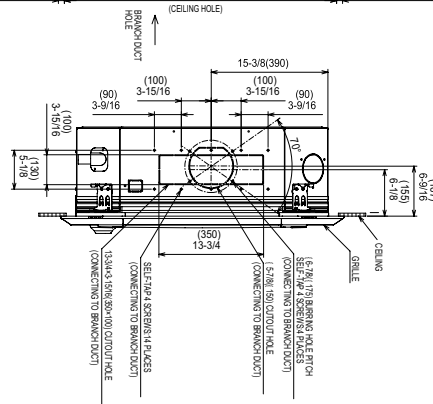
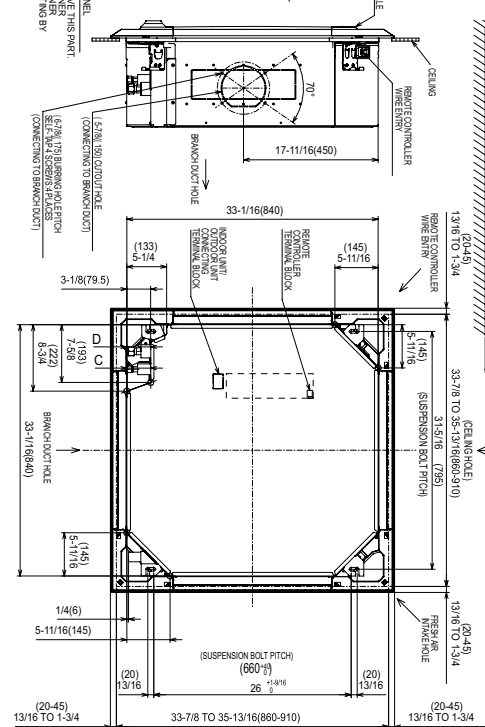
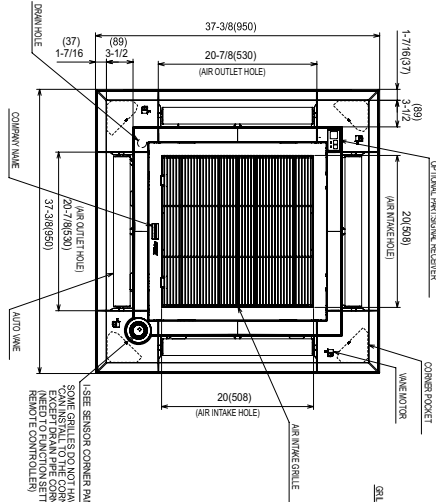
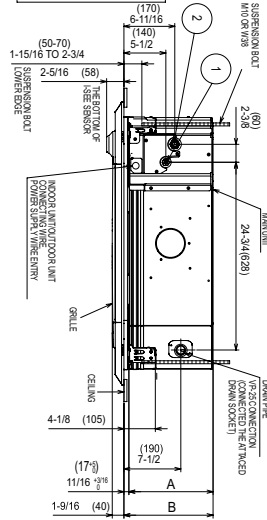
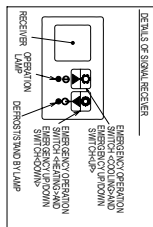
OUTDOOR UNIT ACCESSORIES: TRUZA0121KA70NA

Air Outlet Guide	Air Outlet Guide	☐ PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	☐ PAC-SG63DP-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	☐ M21EC0397
	USB Conversion Cable for PAC-USCMS-MN-1	☐ M21EC1397
Drain Socket	Drain Socket	☐ MAC-871DS
Hail Guards	Hail Guard	☐ HG-A5
M-NET Converter	M-NET Interface for PUZ-A-NKA7 12 & 18 outdoor units	☐ PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	☐ ULTRILITE1
Snow/Rain Diverter	Snow/Rain Diverter	☐ SRD-2
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 Stand — 12" High	☐ QSMS1201M
Wind Baffle	Front Wind Baffle	☐ WB-PA4
	Rear Wind Baffle	☐ WB-RE4
	Side Advanced Wind Baffle	☐ WB-SD4

INDOOR UNIT DIMENSIONS: TPLA0A0121EA80A

Unit: inch (mm)

MODES	(1)	(2)	A	B	C	D	E	F
TOH KETUH	REFRIGERANT PIPES IS FLARED CONNECTION 1/4"	REFRIGERANT PIPE 1/2"	9/12	10/3/6	10/7/1	10/7/1	10/26/5	137/13/6/50/0
24/0/30/42 KETUH	REFRIGERANT PIPES IS FLARED CONNECTION 1/2"	REFRIGERANT PIPE 1/2"	12/11	11/3/4	3/1/8	3/1/8	13/3/0	117/14/6/50/0
			(281)	(289)	(79/2)		OR MORE	OR LESS



3) AND 4) LOCATE THE SUSPENSION POINTS OF THE DRAIN PIPES. THE DISTANCE BETWEEN THE SUSPENSION POINTS SHOULD BE 100 CM (39.37 INCHES). THE SUSPENSION POINTS SHOULD BE 10 CM (3.93 INCHES) FROM THE WALL AND 10 CM (3.93 INCHES) FROM THE FLOOR.

5) FOR THE SUSPENSION POINT, USE #10 OR #8S.

(PROCURED AT THE LOCAL SITE)

6) DRILL 25 CM (9.84 INCH) DIA. (2) PVC (100 LB) PIPES IN MAX. 3 CM (1.18 INCH) FROM THE CEILING.

7) DRILL 25 CM (9.84 INCH) DIA. (2) PVC (100 LB) PIPES IN MAX. 3 CM (1.18 INCH) FROM THE FLOOR.

8) MAKE SURE TO SLACK THE ELECTRICAL WIRE BEFORE CONNECTING THE DRAIN PIPES TO THE CONTROL PANEL. THE ELECTRICAL WIRE MUST BE CONNECTED TO THE CONTROL PANEL BEFORE IT IS ABLE TO BE ADJUSTED WITH THE GALLIE ATTACHED.

9) THE 25 CM (9.84 INCH) DIA. (2) PVC (100 LB) PIPES WITH 7.6 CM (3 INCH) O.D. WORK SPACE BETWEEN TRANSOM AND CEILING FOR THE INSTALLATION OF THE DRAIN PIPES.

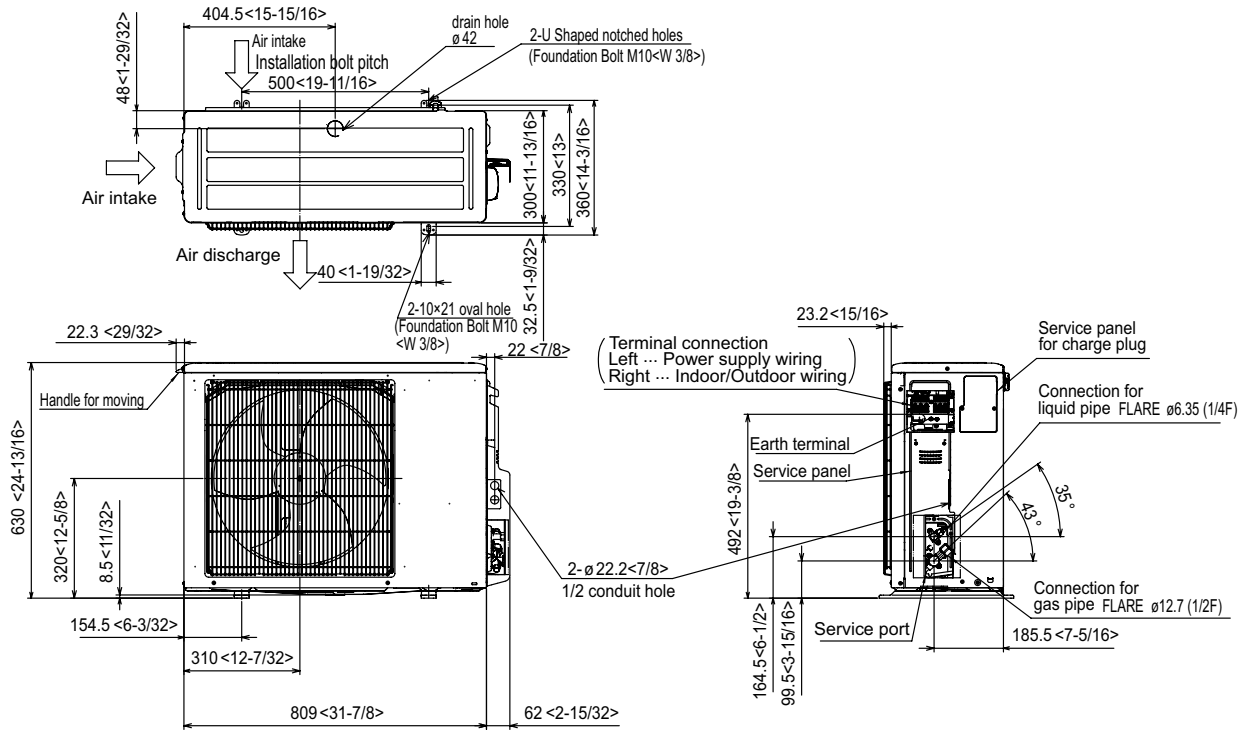
10) IF BECAUSE THE CAUSE OF DROPLET OR DROPLET EXPANSION (IT BECOMES THE CAUSE OF DROPLET OR DROPLET EXPANSION) OTHERWISE CONDENSATION AND SPERMATION MAY OCCUR.

11) THE 25 CM (9.84 INCH) DIA. (2) PVC (100 LB) PIPES REFER TO THE RIGHT AT FIGURE.

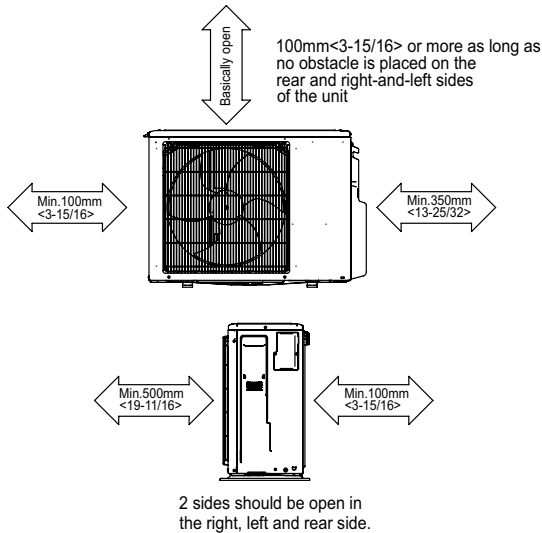
12) FOR THE INSTALLATION OF THE OPTIMAL HIGH EFFICIENCY FILTER OR MULTI-FUNCTIONAL COAGULANT, REFER TO SPECIAL DRAWING.

OUTDOOR UNIT DIMENSIONS: TRUZA0121KA70NA

Unit: mm<in>



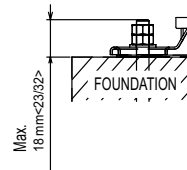
Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10<W3/8>) bolts. (Bolts, washers and nut must be purchased locally).

<Foundation bolt height>



PIPING-WIRING DIRECTION

Piping and wiring connection can be made from the rear direction only.