

TPCA0A0421KA70A & TRUZA0421KA70NA
42,000 BTU/H CEILING-SUSPENDED INDOOR UNIT
42,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR



Job Name:

System Reference:

Date:



Indoor Unit.....TPCA0A0421KA70A

Outdoor Unit.....TRUZA0421KA70NA



INDOOR UNIT FEATURES

- Airflow settings for high and low ceiling applications
- Knock-out for outside-air intake
- Optional i-see Sensor™ for air distribution and energy saving
- Auto fan speed mode
- Filter status indicator
- Easy-to-clean, washable filter
- Suspends from ceiling for quick and easy installation
- Ideal for larger retail stores, classrooms, and restaurants
- 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 100 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: TPCA0A0421KA70A & TRUZA0421KA70NA

| | | | |
|---|--|---------------------|--|
| Cooling at 95°F ¹ | Maximum Capacity | BTU/H | 42,000 |
| | Rated Capacity | BTU/H | 42,000 |
| | Minimum Capacity | BTU/H | 16,000 |
| | Maximum Power Input | W | 4,110 |
| | Rated Power Input | W | 4,110 |
| | Moisture Removal | Pints/h | 11.7 |
| | Sensible Heat Factor | | 0.69 |
| Heating at 47°F ² | Maximum Capacity | BTU/H | 48,000 |
| | Rated Capacity | BTU/H | 45,000 |
| | Minimum Capacity | BTU/H | 18,100 |
| | Maximum Power Input | W | 4,300 |
| | Rated Power Input | W | 3,480 |
| | Power Factor [208V / 230V] | % | 94.6 / 94.6 |
| Heating at 17°F ³ | Maximum Capacity | BTU/H | 35,000 |
| | Rated Capacity | BTU/H | 31,800 |
| | Maximum Power Input | W | 3,200 |
| | Rated Power Input | W | 3,160 |
| Heating at 5°F ⁴ | Maximum Capacity | BTU/H | 30,500 |
| | Maximum Power Input | W | 3,500 |
| Efficiency | SEER SEER2 | | 17.6 17.7 |
| | EER ¹ EER2 ¹ | | 10.2 10.0 |
| | HSPF [IV] HSPF2 [IV] | | 10.2 9.4 |
| | COP at 47°F ² | | 3.78 |
| | COP at 17°F at Maximum Capacity ³ | | 3.21 |
| | COP at 5°F at Maximum Capacity ⁴ | | 2.55 |
| | ENERGY STAR® Certified | | No |
| 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 | 30 |
| | Recommended Wire Size [Indoor - Outdoor] | AWG | 14 |
| | Power Supply | | Indoor unit is powered by the outdoor unit |
| Indoor Unit | MCA | A | 2.0 |
| | Fan Motor Full Load Amperage | A | 0.97 |
| | Fan Motor Type | | DC Motor |
| | Airflow Rate at Cooling, Dry | CFM | 810–885–955–1,025 |
| | Airflow Rate at Cooling, Wet | CFM | 740–810–885–955 |
| | Airflow Rate at Heating, Dry | CFM | 810–885–955–1,025 |
| | Sound Pressure Level [Cooling] | dB[A] | 39–41–43–45 |
| | Sound Pressure Level [Heating] | dB[A] | 39–41–43–45 |
| | Drain Pipe Size | In. [mm] | 1-1/32 [26] |
| | Coating on Heat Exchanger | | — |
| | External Finish Color | | White Munsell 6.4Y 8.9/0.4 |
| | Unit Dimensions | W x D x H: In. [mm] | 63 x 26-3/4 x 9-1/16 [1,600 x 680 x 230] |
| | Package Dimensions | W x D x H: In. [mm] | 65-3/4 x 29-15/16 x 13-3/4 [1,670 x 760 x 350] |
| | Unit Weight | Lbs. [kg] | 86 [39] |
| Package Weight | Lbs. [kg] | 102 [46] | |
| Indoor Unit Operating Temperature Range | Cooling Intake Air Temp [Maximum / Minimum]* | °F | 90 DB, 72 WB / 68 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)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB
²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB
³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions ⁴Heating 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: TPCA0A0421KA70A & TRUZA0421KA70NA

| | | | | |
|--|--|--|---|-----------------------------|
| Outdoor Unit | MCA | A | 25.0 | |
| | MOCP | A | 31 | |
| | Fan Motor Full Load Amperage | A | 0.5 + 0.5 | |
| | Fan Motor Output | W | 74 | |
| | Airflow Rate [Cooling / Heating] | CFM | 3880 / 3880 | |
| | Refrigerant Control | | LEV | |
| | Defrost Method | | Reverse Cycle | |
| | Coating on Heat Exchanger | | Blue Fin Coating*** | |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 52 | |
| | Sound Pressure Level, Heating ² | dB(A) | 53 | |
| | Compressor Type | | INVERTER-driven twin rotary | |
| | Compressor Model | | MNB33FBRMC-L | |
| | Compressor Rated Load Amps | A | 8 | |
| | Compressor Locked Rotor Amps | A | 13.0 | |
| | Compressor Oil [Type // Charge] | oz. | FV50S // 45 | |
| | External Finish Color | | Ivory Munsell 3Y 7.8/1.1 | |
| | Base Pan Heater | | N/A | |
| | Unit Dimensions | W x D x H: In. [mm] | 41-5/16 x 13 (+1-3/16) x 52-11/16 [1050 x 330 (+30) x 1338] | |
| | Package Dimensions | W x D x H: In. [mm] | 42-15/16 x 17-11/16 x 56-4/16 [1091 x 450 x 1429] | |
| | Unit Weight | Lbs. [kg] | 214 [97] | |
| | Package Weight | Lbs. [kg] | 245 [111] | |
| | 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 / -4 DB, -4 WB |
| | | Heating Thermal Lock-out / Re-start Temperatures** | °F | -8 / -4 |
| | Refrigerant | Type | | R410A |
| Pre-Charged Refrigerant Amount | | Lbs, oz | 10.0, 6.0 | |
| Maximum Pre-Charged Piping Length | | Ft. [m] | 100.0 [30.0] | |
| Additional Refrigerant Charge Per Additional Piping Length | | oz./Ft. [g/m] | 0.7 [50] | |
| 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] | 165 [50] | |
| | Maximum Height Difference | Ft. [m] | 100 [30] | |
| | Maximum Number of Bends | | 15 | |

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INDOOR UNIT ACCESSORIES: TPCA0A0421KA70A

| | | |
|----------------------------|---|-------------------|
| Control Interface | BACnet® and Modbus® Interface | PAC-UKPRC001-CN-1 |
| | CN24 Relay Kit | CN24RELAY-KIT-CM3 |
| | IT Extender | PAC-WHS01IE-E |
| | kumo station® for kumo cloud® | TAC-WHS01HC-E |
| | Remote Operation Adapter† | PAC-SF40RM-E |
| | Thermostat Interface | PAC-US444CN-1 |
| | Thermostat Interface | PAC-US445CN-1 |
| | USNAP Adapter | PAC-WHS01UP-E |
| Remote Sensor | Wireless Interface for kumo cloud® | PAC-USWHS002-WF-2 |
| | Flush Mount Remote Temperature Sensor | PAC-USSEN002-FM-1 |
| | Flush Mount Temperature Sensor | PAC-USSEN001-FM-1 |
| | Remote Temperature Sensor | PAC-SE41TS-E |
| Wired Remote Controller | Wireless temperature and humidity sensor for kumo cloud® | PAC-USWHS003-TH-1 |
| | 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 |
| | Wireless Receiver Kit | PAR-SL93B-E |
| | Wireless Receiver Kit with i-See sensor™ | PAR-SA92MW-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 |
| | 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 |
| 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 |

NOTES:

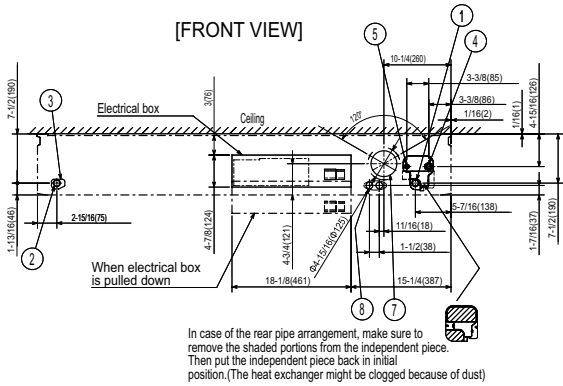
†PAC-SF40RM-E (Unable to use with wireless remote controller)

OUTDOOR UNIT ACCESSORIES: TRUZA0421KA70NA

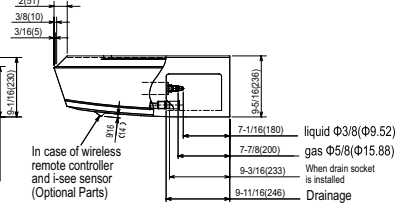
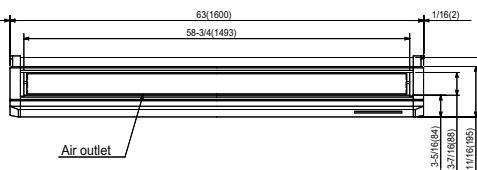
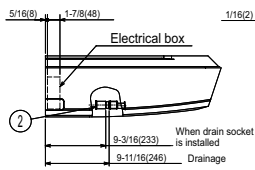
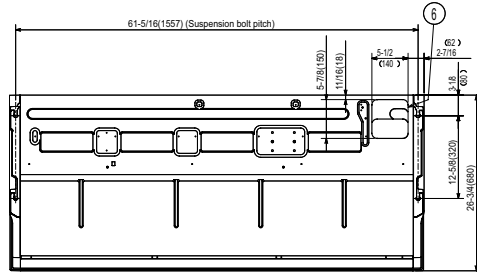
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|----------------------|--|--|
| Air Outlet Guide | Air Outlet Guide (1 Piece) | PAC-SG59SG-E |
| | Air Outlet Guide (1 Piece) | PAC-SH96SG-E (two pieces are required) |
| Control/Service Tool | Control/Service Tool | PAC-SK52ST |
| | M- & P-Series Maintenance Tool Cable Set | M21EC0397 |
| | USB/UART Conversion Cable (Required for all laptop connection) | M21EC1397 |
| M-NET Converter | M-NET Converter | PAC-SJ85MA-E |
| | M-NET Converter | PAC-SJ95MA-E |
| Mini-Split Wire | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll | S144-250 |
| | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll | S144-50 |
| | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll | S164-250 |
| | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll | S164-50 |
| Mounting Pad | Condensing Unit Mounting Pad: 24" x 42" x 3" | ULTRILITE2 |
| 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) |
| | Rear Wind Baffle | WB-RE6 |
| | Side Advanced Wind Baffle | WB-SD6 |

INDOOR UNIT DIMENSIONS: TPCA0A0421KA70A

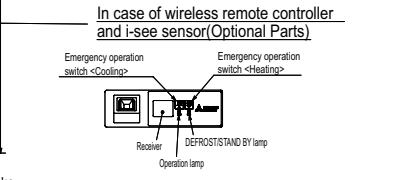
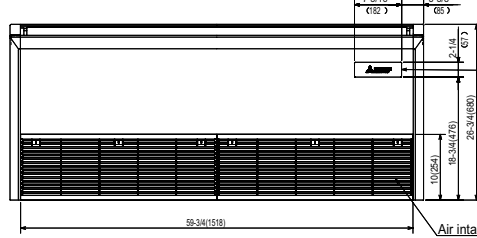
Unit: in (mm)



NOTES.
 1. Use M10 or W3/8 screw for anchor bolt.
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.

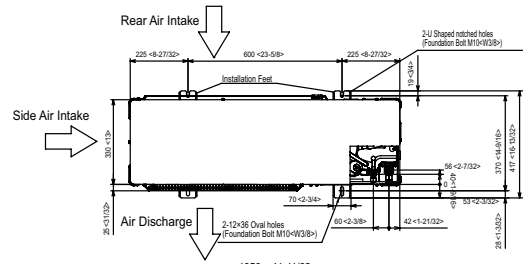
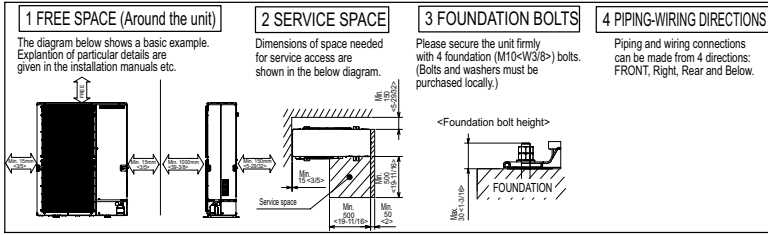


- ① Drainage pipe connection(1(26mm)I.D.)
- ② Drainage pipe connection(for the left arrangement)
- ③ Knockout hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knockout hole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



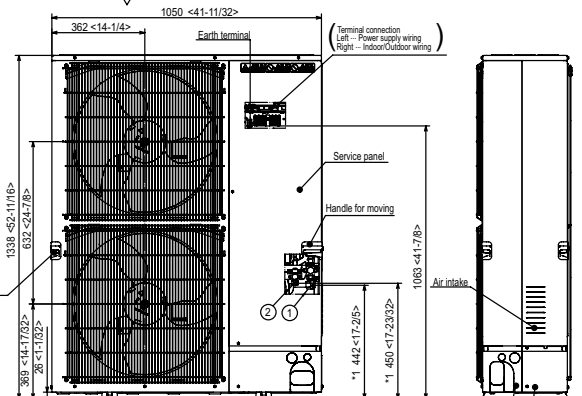
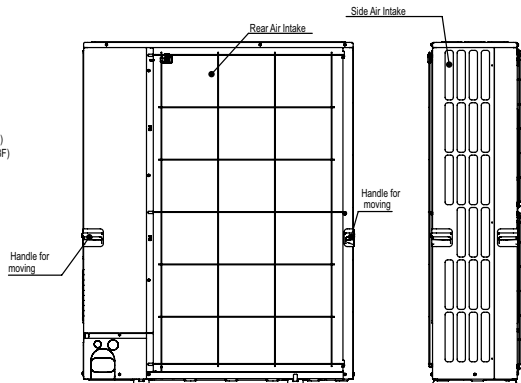
OUTDOOR UNIT DIMENSIONS: TRUZA0421KA70NA

Unit: mm<in>



Example of Notes

- ① - Refrigerant GAS pipe connection (FLARE) ϕ 15.88(5/8")
- ② - Refrigerant LIQUID pipe connection (FLARE) ϕ 9.52(3/8")
- *1 - ... Indication of STOP VALVE connection location.



Piping Knockout Hole Details

