# TPCA0A0421KA70A & TRUYA0421KA70NA
## 42,000 BTU/H CEILING-SUSPENDED INDOOR UNIT
## 42,000 BTU/H COOLING ONLY OUTDOOR

Job Name:

System Reference: Date:

Indoor Unit.....TPCA0A0421KA70A

Outdoor Unit.....TRUYA0421KA70NA

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 -40°F providing 100% capacity (with wind baffles)
- 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


© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

# SPECIFICATIONS: TPCA0A0421KA70A & TRUYA0421KA70NA

| | | | |
|---|---|---|---|
| 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 |
| | Power Factor [208V / 230V] | % | 95.6 / 95.6 |
| Efficiency | SEER \| SEER2 | | 17.6 \| |
| | EER[1] \| EER2[1] | | 10.2 \| |
| | 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 (Oudoor) | 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 |
| 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 |
| | Refrigerant Control | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Coating on Heat Exchanger | | Blue Fin Coating*** |
| | Sound Pressure Level, Cooling[1] | dB(A) | 52 |
| | 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] | 211 [96] |
| | Package Weight | Lbs. [kg] | 243 [110] |
| Outdoor Unit Operating Temperature Range | Cooling Air Temp [Maximum / Minimum]* | °F | 115 DB / -40 DB |
| 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] | 0.3 [22.5] |

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

*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; 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 1ZU*****


© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

# SPECIFICATIONS: TPCA0A0421KA70A & TRUYA0421KA70NA

| | | | |
|---|---|---|---|
| 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] | 225 [68] |
| | 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

*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; 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 1ZU*****


© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

# 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 |
| | Wireless Interface for kumo cloud® | ☐ PAC-USWHS002-WF-2 |
| 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 humitity 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 |
| | 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)


© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

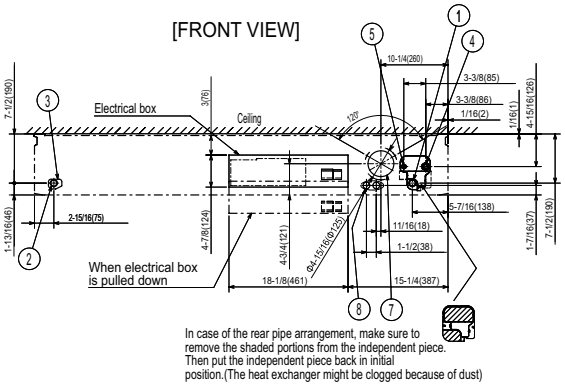
# OUTDOOR UNIT ACCESSORIES: TRUYA0421KA70NA

| | | |
|---|---|---|
| Air Outlet Guide | 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 |

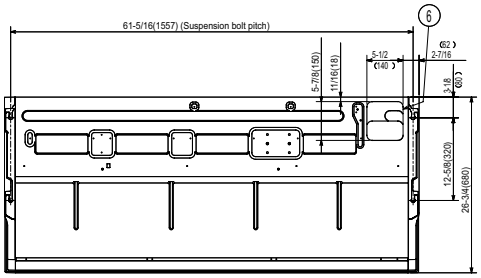

© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

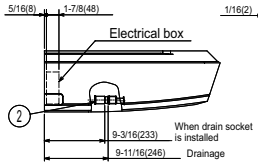
# INDOOR UNIT DIMENSIONS: TPCA0A0421KA70A

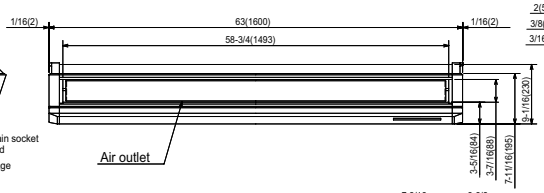
Unit: in (mm)

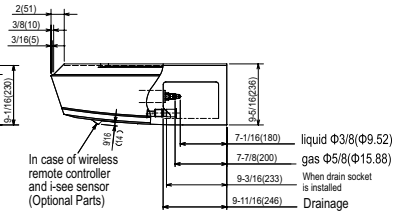



NOTES.
1.Use M10 or W3/8 screw for anchor bolt.
2.Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.



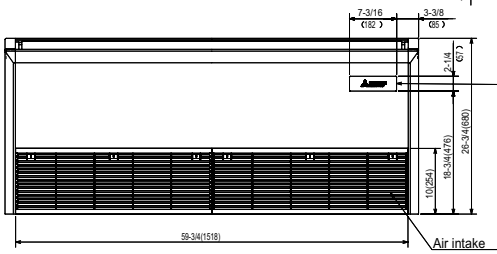



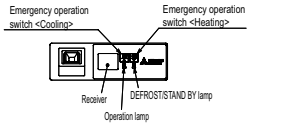




1. Drainage pipe connection(1(26mm)I.D.)
2. Drainage pipe connection(for the left arrangement)
3. Knockout hole for left drain-piping arrangement
4. Refrigerant-pipe connection (gas pipe side/flared connection)
5. Refrigerant-pipe connection (liquid pipe side/flared connection)
6. Knockout hole for upper drain pipe arrangement
7. Knockout hole for fresh air intake Φ3-15/16(Φ100)
8. Knockout hole for wiring arrangement Φ7/8(Φ22)

Accessory...Drain socket (1(26mm)I.D.)



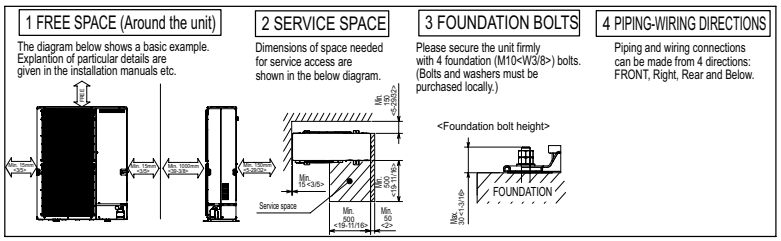



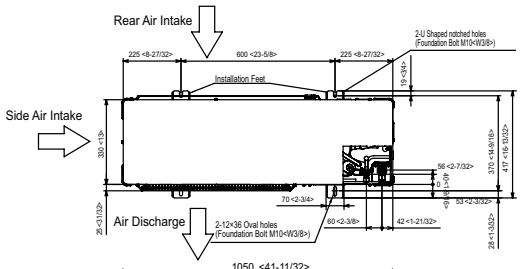


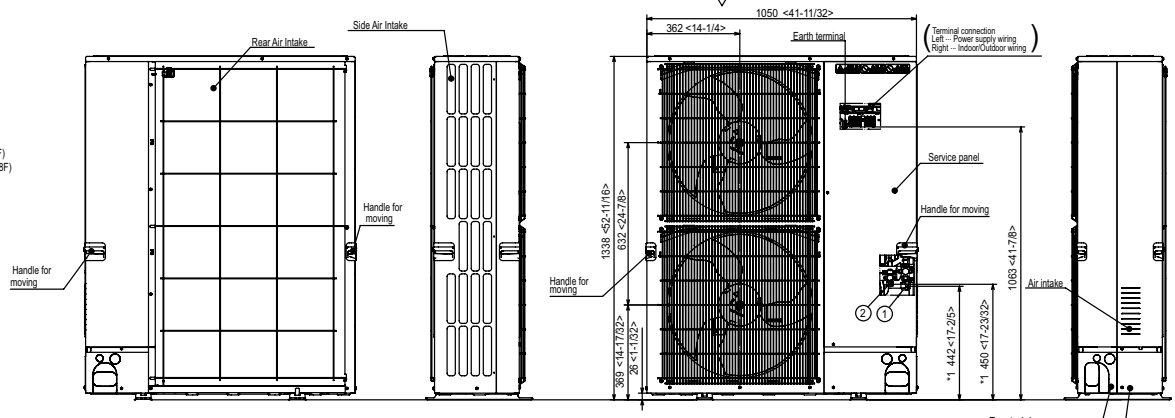
© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.

# OUTDOOR UNIT DIMENSIONS: TRUYA0421KA70NA

Unit: mm<in>



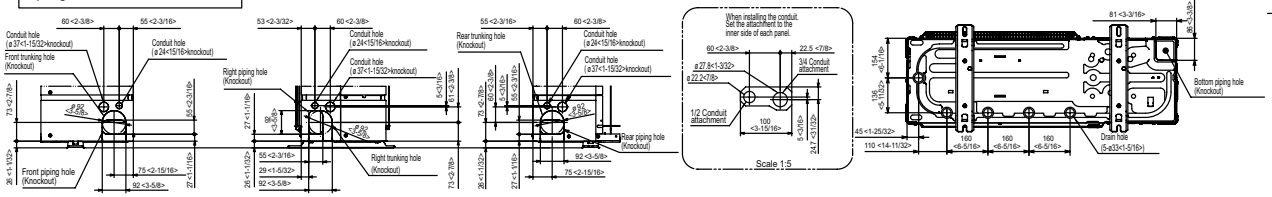




## Example of Notes

① -- Refrigerant GAS pipe connection (FLARE) ø15.88(5/8F)
② -- Refrigerant LIQUID pipe connection (FLARE) ø9.52(3/8F)
*1 -- Indication of STOP VALVE connection location.

## Piping Knockout Hole Details




FORM# TPCA0A0421KA70A & TRUYA0421KA70NA - 202304

Specifications are subject to change without notice.

© 2023 Mitsubishi Electric Trane HVAC US LLC. All rights reserved.