# Product Catalog

## C-Series

Concealed (Ducted) Indoor and Outdoor Units


**Indoor unit model number:**
4MUD4518A10N0*
4MUD4524A10N0*
4MUD4530A10N0*
4MUD4536A10N0*
4MUD4542A10N0*
4MUD4548A10N0*

**Outdoor unit model number:**
4TUK4518A10N0*
4TUK4524A10N0*
4TUK4530A10N0*
4TUK4536A10N0*
4TUK4542A10N0*
4TUK4548A10N0*

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# Introduction

Trane® C-Series ductless systems offer heating and cooling capacities ranging from 1.5 to 4 tons to precisely meet the requirements of indoor spaces while delivering high energy efficiency—up to 20 SEER. A variety of indoor fan coil unit options are available in both ceiling cassette and concealed designs, so your Trane ductless system can be perfectly tailored to the requirements of the space. Trane C-Series systems support pipe runs of up to 98 vertical ft (29.9 m), and up to 245 total ft (74.7 m). All C-Series systems are rated for cooling operation to 0°F (-17.8°C) and heating operation to -4°F (-20°C).

Suitable for a wide variety of applications, Trane C-Series systems can reliably deliver precise temperature control to maintain comfort, as well as ensure the reliability of heat-generating equipment like computer servers, making them perfect for applications like small remote facilities on larger campuses, data centers, machine rooms and more. Trane C-Series systems are also a perfect supplement to larger Trane VRF systems, with the same controls available to both systems.

# Copyright



# Trademarks



# Revision History

| Revision | Description |
|---|---|
| B | Updated the outdoor unit MCA and MOP values in the specification tables. |

# Table of Contents

# Features and Benefits

The following is a list of standard features:

- 10 year parts and compressor warranty
- Low ambient cooling to 0°F (-17.8°C) (with baffle)
- Low ambient heating to  -4°F (-20°C) (with baffle)
- Auto restart on power fail
- Night time quiet operation mode
- Return air filter standard
- Inverter compressor/condenser fan motor
- BLDC supply fan
- Low pressure cutoff

The following is a list of optional features:

- Low ambient wind baffle
- Wireless remote control
- Wired programmable controller
- Simple touch controller
- Refrigerant line set
- Condenser pad
- Auxiliary heat

# Mechanical Specification

## Outdoor Unit

This unit is fully charged from the factory for up to 25 ft (7.6 m) of piping. In cooling mode, the system is designed to operate at outdoor ambient temperatures between 23°F and 115°F (-5°C and 46.1°C). With the addition of a wind baffle, cooling capacity is extended down to 0°F (-17.8° C). In heating mode, the system is designed to operate at outdoor ambient temperatures between -4°F (-20°C) and 76°F (24°C). Cooling and heating capacities and efficiencies are AHRI certified. The unit is ETL listed for outdoor application.

### Unit Casing

The unit casing is constructed of heavy gauge, galvanized steel and painted with weather-resistant powder paint.

### Refrigerant Controls

Refrigeration system controls include condenser fan and compressor relays. Each outdoor unit is completely factory assembled, including a modulating linear expansion valve and suction line multi-function service valve. High and low pressure controls are inherent to the compressor.

### Compressor

The compressor has inverter driven technology to modulate capacity. Additional features include internal thermal overload and pressure protection. A total dipping process protects hermetic motor windings. The compressor is mounted to avoid the transmission of vibration and noise.

### Condenser Coil

The coil is manufactured with aluminum micro-channel tubing. The coil provides air flow resistance and efficient heat transfer. The coil is protected by the casing and coil guard.

## Indoor Unit

Concealed (duct type) air handlers are high-performance ceiling-concealed ducted fan coils with field-adjustable return and a fixed horizontal discharge supply when using field-installed return air filter boxes. These air handlers are UL 1995 certified to serve multiple rooms.

Each indoor unit is completely factory assembled including control circuit board and fan motor. Each indoor unit includes a condensate drain pan and built-in condensate drain pump. The indoor unit is factory and run tested.

### Unit Cabinet

The indoor unit has flanges for ducted, air-supply connections and is UL 1995 certified to serve multiple rooms..

### Fan

The indoor fan is statically and dynamically balanced to run on a motor with permanently lubricated bearings. The indoor fan motor has available four speeds: High, Medium, Low, and Auto.

## Remote Controller

Wired and wireless control is available for all units (sold separately). Available features include (depending on model):

- On/off control
- Mode selection
- Temperature setpoint
- Fan speed setting
- Dirty filter alert
- Scheduling

# Model Number Description

## Indoor Unit Model Number Description

**Digit 1 — Refrigerant**

**4** = R410A

**Digit 2 — Product type**

**M** = Mini-split indoor unit

**Digit 3 — System type**

**U** = C-Series universal match

**Digit 4 — System type**

**D** = Mid static pressure duct type

**Digit 5 — Standard model**

**4** = Standard model

**Digit 6 — Connection type**

**5** = Flare

**Digit 7, 8 — Nominal capacity (Btu/h x 1,000)**

**18** = 18,000 Btu/h

**24** = 24,000 Btu/h

**30** = 30,000 Btu/h

**36** = 36,000 Btu/h

**42** = 42,000 Btu/h

**48** = 48,000 Btu/h

**Digit 9 — Major development sequence**

**A** = First development sequence

**B** = Second development sequence

**C** = Third development sequence

**D** = Fourth development sequence

**Digit 10 — Major development sequence**

**1** = 208–230/60/1

**Digit 11 — Reserved for future use**

**0** = Standard

**Digit 12 — Miscellaneous digit**

**N** = North America market (mini-split models)

**Digit 13 — Reserved for future use**

**0** = Standard

**Digit 14 — Minor design sequence**

**A** = First design sequence

**B** = Second design sequence

**C** = Third design sequence

**D** = Fourth design sequence

## Outdoor Unit Model Number Description

**Digit 1 — Refrigerant**

**4** = R410A

**Digit 2 — Brand name**

**T** = Trane

**Digit 3 — System type**

**U** = Universal match heat pump

**Digit 4 — Configuration type**

**K** = Outdoor unit

**Digit 5 — Efficiency tier and/or special application**

**4** = Standard model

**Digit 6 — Series number**

**5** = Standard model

**Digit 7, 8 — Nominal capacity (Btu/h x 1,000)**

**18** = 18,000 Btu/h

**24** = 24,000 Btu/h

**30** = 30,000 Btu/h

**36** = 36,000 Btu/h

**42** = 42,000 Btu/h

**48** = 48,000 Btu/h

**Digit 9 — Major development sequence**

**A** = First development sequence

**B** = Second development sequence

**C** = Third development sequence

**D** = Fourth development sequence

**Digit 10 — Electric power supply characteristics**

**1** = 208–230/60/1

**Digit 11 — Reserved for future use**

**0** = Not currently used

**Digit 12 — Region of sale**

**N** = North America (UL or ETL)

**Digit 13 — Reserved for future use**

**0** = Not currently used

**Digit 14 — Minor design sequence**

**A** = First design sequence

**B** = Second design sequence

**C** = Third design sequence

**D** = Fourth design sequence

# Products

## Application Matrix

| Type | | MBH | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 15 | 18 | 20 | 24 | 27 | 30 | 32 | 36 | 42 | 48 |
| High wall unit (12–24 MBH) |  | X | | X | X | X | | | | | | |
| High wall unit (30–36 MBH) |  | | | | | | | X | | X | | |
| Circular cassette unit (18–48 MBH) |  | | | X | | X | | X | | X | X | X |
| 4-way cassette unit (18–48 MBH) |  | | | X | | X | | X | | X | X | X |
| Mid static (concealed) unit (18–48 MBH) |  | | | X | | X | | X | | X | x | X |
| Convertible air handler (18–48 MBH) |  | | | X | | X | | X | | X | X | X |

# Controls

## Zone Controllers

| Type | Figure | Model Number |
|---|---|---|
| Wireless remote control<br>• Mode: heat/cool/auto/off<br>• Fan: auto/high/med/low<br>• Service indicator<br>***Note:*** *Requires the use of a duct signal receiver when used with a 4MUD ducted product.* |  | TVCTRLTRDH00UT |
| Wireless control<br>EcoAir<br>• Mode: heat/cool/auto/off<br>• Fan: auto/high/med/low<br>• Occupancy/setback<br>• Service indicator |  | TVCTRLTECOAIR1A |
| EcoTouch<br>• Mode: heat/cool/auto/off<br>• Fan: auto/high/med/low<br>• Occupancy/setback<br>• Service indicator |  | TVCTRLECOTCH1A |
| Simple touch wired control<br>• Mode: heat/cool/auto/off<br>• Fan: auto/high/med/low<br>• Service indicator |  | TVCTRLTWR0002T |
| Wired remote control<br>• Mode: heat/cool/auto/off<br>• Fan: auto/high/med/low<br>• Programmable<br>• Service indicator |  | TVCTRLTWRWD02T |

## Centralized Control Systems

| Type | Model Number |
|---|---|
| VRF touch screen control | TVCTRLTCMA300T |

## Integrated System Management

| Type | Model Number |
|---|---|
| VRF power meter interface (PIM) | TVCTRLTIMB16A0 |

## Building Management System Gateways

| Type | Model Number |
|---|---|
| VRF system controller+BACnet®<br>***Note:*** *This controller enables BACnet integration.* | TVCTRLSCBB17A0 |

## Interface Modules

| Type | Model Number |
|---|---|
| VRF external contact interface module/auxiliary heat module | TVCTRLTIMB14A0 |

## Sensors

| Type | Model Number |
|---|---|
| VRF external room temperature sensor | TVCTRLTRWTA000 |

## Commissioning Utility Kits

| Type | Model Number |
|---|---|
| VRF Technician Utilities Tool (TUT) | TVCTRLTIMC0300 |

# Accessories

| Family | Description | Model Number |
|---|---|---|
| Hail Guards | 4TVH/R*096–192 | TVRGARD002A |
| Wind Baffles | 4TUK4512A10N0A<br>Use when low ambient cooling is required below 23°F outdoor temperature. | CSERWINDBFL12A |
| | 4TUK4518A10N0A | CSERWINDBFL18A |
| | 4TUKL518A10N0A | CSERWINDB4018A |
| | 4TUK4524A10N0A<br>4TUK4530A10N0A<br>4TUKL524A10N0A<br>4TUKL530A10N0A<br>4TUKL536A10N0A | CSERWINDBFL24A |
| | 4TUK4536A10N0A<br>4TUK4542A10N0A<br>4TUK4548A10N0A | CSERWINDBFL36A |
| Low ambient cooling kit | 6 ton model | TVPROCOOLK01A |
| | 8, 10, and 12 ton models | TVPROCOOLK02A |

# Product Specification

**Table 1. System specifications for 18, 24, and 30 MBH capacity units**

| System model numbers | | 4MUD4518A10N0*/ 4TUK4518A10N0* | | 4MUD4524A10N0*/ 4TUK4524A10N0* | | 4MUD4530A10N0*/ 4TUK4530A10N0* | |
|---|---|---|---|---|---|---|---|
| **Power supply** | | **208–230/60/1** | | **208–230/60/1** | | **208–230/60/1** | |
| **Performance** | | | | | | | |
| | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Rated cooling/heating capacity (Btu/h) | | 18,000 | 20,000 | 24,000 | 27,000 | 30,000 | 32,000 |
| Cooling capacity @95°F (Btu/h) | Max | 21,000 | N/A | 27,000 | N/A | 35,000 | N/A |
| | Min | 5,000 | N/A | 7,000 | N/A | 9,300 | N/A |
| Heating capacity @47°F (Btu/h) | Max | N/A | 25,000 | N/A | 31,000 | N/A | 38,000 |
| | Min | N/A | 3,800 | N/A | 5,200 | N/A | 9,000 |
| Heating capacity @17°F (Btu/h) | Max | N/A | 16,500 | N/A | 23,000 | N/A | 32,000 |
| | Rated | N/A | 13,500 | N/A | 17,000 | N/A | 20,600 |
| Heating capacity @5°F (Btu/h) | Max | N/A | 14,100 | N/A | 20,500 | N/A | 29,000 |
| Heating capacity @-4°F (Btu/h) | Max | N/A | 10,000 | N/A | 14,500 | N/A | 20,000 |
| SEER/HSPF | Rated per AHRI 210/240 | 19.6 | 10.3 | 20.0 | 10.5 | 19.1 | 10.0 |
| EER @95°F | | 11.2 | 11.6 | 12.1 | 11.5 | 11.1 | 12.0 |
| Dehumidifying volume | pt/hr | 4.26 | | 6.13 | | 7.03 | |
| **Power** | | | | | | | |
| Rated power input | W | 1.61 | 1.73 | 1.99 | 2.35 | 2.70 | 2.66 |
| Nominal input current | A | 7.4 | 8.0 | 9.2 | 10.8 | 12.0 | 12.0 |

**Notes:**

**1**. Nominal capacity based on 25 ft (7.6 m) of equivalent refrigerant piping with 0 ft (0 m)level difference.
**Cooling:** Indoor temperature 80° F DB, 67° F W; outdoor temperature 95° F DB, 75° F WB.
**Heating:** Indoor temperature 70° F DB, 60° F W; outdoor temperature 47° F DB, 43° F WB.

**2**. Rated per AHRI-210/240 standard conditions.

**Table 2. System capacity specifications for 36, 42, and 48 MBH capacity units**

| System model numbers | | 4MUD4536A10N0*/ 4TUK4536A10N0* | | 4MUD4542A10N0*/ 4TUK4542A10N0* | | 4MUD4548A10N0*/ 4TUK4548A10N0* | |
|---|---|---|---|---|---|---|---|
| **Power supply** | | **208–230/60/1** | | **208–230/60/1** | | **208–230/60/1** | |
| **Performance** | | | | | | | |
| | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Rated cooling/heating capacity (Btu/h) | | 36,000 | 40,000 | 42,000 | 47,000 | 48,000 | 53,000 |
| Cooling capacity @95°F (Btu/h) | Max | 41,000 | N/A | 45,000 | N/A | 51,000 | N/A |
| | Min | 14,000 | N/A | 16,300 | N/A | 18,600 | N/A |
| Heating capacity @47°F (Btu/h) | Max | N/A | 48,000 | N/A | 50,000 | N/A | 55,000 |
| | Min | N/A | 11,500 | N/A | 13,400 | N/A | 15,300 |
| Heating capacity @17°F (Btu/h) | Max | N/A | 36,000 | N/A | 42,000 | N/A | 42,200 |
| | Rated | N/A | 24,000 | N/A | 29,000 | N/A | 32,500 |
| Heating capacity @5°F (Btu/h) | Max | N/A | 34,000 | N/A | 39,000 | N/A | 39,500 |
| Heating capacity @-4°F (Btu/h) | Max | N/A | 30,000 | N/A | 30,000 | N/A | 30,500 |
| SEER/HSPF | Rated per AHRI 210/240 | 20.0 | 10.0 | 19.0 | 10.0 | 18.1 | 9.6 |
| EER @95°F | | 12.0 | 12.1 | 10.5 | 11.8 | 9.7 | 10.5 |
| Dehumidifying volume | pt/hr | 8.24 | | 9.37 | | 12.35 | |
| **Power** | | | | | | | |
| Rated power input | W | 4.95 | 5.05 | | | | |
| Nominal input current | A | 13.0 | 14.3 | 16.4 | 17.3 | 21.5 | 20.0 |

**Notes:**

**1**. Nominal capacity based on 25 ft (7.6 m) of equivalent refrigerant piping with 0 ft (0 m) level difference.
**Cooling:** Indoor temperature 80° F DB, 67° F W; outdoor temperature 95° F DB, 75° F WB.
**Heating:** Indoor temperature 70° F DB, 60° F W; outdoor temperature 47° F DB, 43° F WB.

**2**. Rated per AHRI-210/240 standard conditions.

**Table 3. Indoor unit specifications for 18, 24, and 30 MBH capacity units**

| Indoor unit model number | | | | 4MUD4518A10N0* | 4MUD4524A10N0* | 4MUD4530A10N0* |
|---|---|---|---|---|---|---|
| Fan | Motor type | | | BLDC | BLDC | BLDC |
| | Output x n | | W | 183 x 1 | 183 x 1 | 183 x 2 |
| | FLA | | A | 0.85 | 0.85 | #1 FLA 1.9 / #2 FLA 1.9 |
| | Fan type | | | Sirocco | Sirocco | Sirocco |
| | Air flow rate H/M/L (dry coil) | | cfm | CFM 565/494/388 | CFM 706/618/530 | 954/883/742 |
| | External static pressure (Min/Std/Max) | | in. HO | 0.0/0.12/0.6 | 0.0/0.12/0.6 | 0.0/0.16/0.8 |
| Coil | Construction | | | Fin/Copper tube | Fin/Copper tube | Fin/Copper tube |
| Sound | Sound pressure level (H/M/L) | | dBA | 34/30/26 | 36/32/28 | 37/33/29 |
| | Sound power level | | dBA | 56 | 58 | 59 |
| Standard components | Filter | | | Washable mesh | Washable mesh | Washable mesh |
| | Condensate drain pump | Max. lifting height | in. | 29 | 29 | 29 |
| | | Displacement | pint /hr. | 50.7 | 50.7 | 50.7 |
| Remote control | Wired remote control | | | TVCTRLTWRWD01T or TVCTRLTWR0002T | TVCTRLTWRWD01T or TVCTRLTWR0002T | TVCTRLTWRWD01T or TVCTRLTWR0002T |
| | Wireless remote control | | | TVCTRLTRDH00UT | TVCTRLTRDH00UT | TVCTRLTRDH00UT |
| Connections | Type | | | Flare | Flare | Flare |
| | Liquid pipe | | dia., in. | 1/4 | 1/2 | 3/8 |
| | Gas pipe | | dia., in. | 1/2 | 5/8 | 5/8 |
| | Condensate drain | | dia., in. | OD.98 (VP25), Id .79 (VP20) | OD.98 (VP25), Id .79 (VP20) | OD.98 (VP25), Id .79 (VP20) |
| Dimensions | Net weight | | lbs. | 94.8 | 94.8 | 136.7 |
| | Shipping weight | | lbs. | 105.8 | 105.8 | 147.7 |
| | Net dimensions (WxHxD) | | in. | 45-3/8 x 12-5/8 x 18-7/8 | 45-3/8 x 12-5/8 x 18-7/8 | 45-3/8 x 12-5/8 x 18-7/8 |
| | Shipping dimensions (WxHxD) | | in. | 55-7/8 × 15-3/4 × 23-3/8 | 55-7/8 × 15-3/4 × 23-3/8 | 57-3/8 × 17-3/8 × 30-3/4 |

**Notes**:
1. Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation requirements.
2. Indoor unit receives power from the outdoor unit through field-supplied interconnecting wiring.
3. Unit includes an optional drain hose connection.

**Table 4. Indoor unit specifications for 36, 42, and 48 MBH capacity units**

| Indoor unit model number | | | | 4MUD4536A10N0* | 4MUD4542A10N0* | 4MUD4548A10N0* |
|---|---|---|---|---|---|---|
| Fan | Motor type | | | BLDC | BLDC | BLDC |
| | Output x n | | W | 183 x 2 | 183 x 2 | 183 x 2 |
| | FLA | | A | #1 FLA 1.9 / #2 FLA 1.9 | #1 FLA 1.9 / #2 FLA 1.9 | #1 FLA 1.9 / #2 FLA 1.9 |
| | Fan type | | | Sirocco | Sirocco | Sirocco |
| | Air flow rate H/M/L (dry coil) | | cfm | 1130/954/777 | 1413/1271/1148 | 1519/1395/1271 |
| | External static pressure (Min/Std/Max) | | in. HO | 0.12/0.16/0.8 | 42-48 ESP 0.16/0.2/.08 | 0.0/0.2/0.8 |
| Coil | Construction | | | Fin/Copper tube | Fin/Copper tube | Fin/Copper tube |
| Sound | Sound pressure level (H/M/L) | | dBA | 38/34/30 | 40/37/34 | 43/40/37 |
| | Sound power level | | dBA | 60 | 62 | 65 |
| Standard components | Filter | | | Washable mesh | Washable mesh | Washable mesh |
| | Condensate drain pump | Max. lifting height | in. | 29 | 29 | 29 |
| | | Displace-ment | pint /hr | 50.7 | 50.7 | 50.7 |
| Remote control | Wired remote control | | | TVCTRLTWRWD02T or TVCTRLTWR001T | TVCTRLTWRWD02T or TVCTRLTWR001T | TVCTRLTWRWD02T or TVCTRLTWR001T |
| | Wireless remote control | | | TVCTRLTRDH00UT | TVCTRLTRDH00UT | TVCTRLTRDH00UT |
| Connections | Type | | | Flare | Flare | Flare |
| | Liquid pipe | | dia., in. | 3/8 | 3/8 | 3/8 |
| | Gas pipe | | dia., in. | 5/8 | 5/8 | 5/8 |
| | Condensate drain | | dia., in. | OD.98 (VP25), Id .79 (VP20) | OD.98 (VP25), Id .79 (VP20) | OD.98 (VP25), Id .79 (VP20) |
| Dimensions | Net weight | | lbs. | 136.7 | 136.7 | 136.7 |
| | Shipping weight | | lbs. | 147.7 | 147.7 | 147.7 |
| | Net dimensions (WxHxD) | | in. | 47-1/4 x 141/4 x 25-5/8 | 47-1/4 x 14-1/4 x 25-5/8 | 47-1/4 x 14-1/4 x 25-5/8 |
| | Shipping dimensions (WxHxD) | | in. | 57-3/8 × 17-3/8 × 30-3/4 | 57-3/8 × 17-3/8 × 30-3/4 | 57-3/8 × 17-3/8 × 30-3/4 |

**Notes:**
1. Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation requirements.
2. Indoor unit receives power from the outdoor unit through field-supplied interconnecting wiring.
3. Unit includes an optional drain hose connection.

**Table 5. Outdoor unit specifications for 18, 24, and 30 MBH capacity units**

| Outdoor Unit Model Number | | | 4TUK4518A10N0* | 4TUK4524A10N0* | 4TUK4530A10N0* |
|---|---|---|---|---|---|
| Compressor | Type | | Rotary inverter | Rotary inverter | Rotary inverter |
| | Oil | | POE | POE | POE |
| | RLA | A | 6.1 | 9.0 | 15.1 |
| Fan | Motor type | | BLDC | BLDC | BLDC |
| | Output x n | W | 39 x 1 | 125 x 1 | 125 x 1 |
| | FLA | A | 0.13 | 0.48 | 0.48 |
| | Fan type | | Propeller | Propeller | Propeller |
| | Air flow rate | cfm | 1550 | 2190 | 2220 |
| Electrical | MCA | A | 10.0 | 14.0 | 24.0 |
| | MOP | A | 15 | 20 | 30 |
| Coil | Construction | | Aluminum micro channel | Aluminum micro channel | Aluminum micro channel |
| Sound | Sound pressure level (Clg/Htg) | dBA | 48/48 | 50/50 | 50/52 |
| | Sound power level | dBA | 62 | 65 | 65 |
| Connections | Type | | Flare | Flare | Flare |
| | Liquid pipe | dia., in. | 1/4 | 1/4 | 3/8 |
| | Gas pipe | dia., in. | 1/2 | 5/8 | 5/8 |
| Dimensions | Net weight | lbs. | 99.2 | 142.2 | 154.3 |
| | Shipping weight | lbs. | 105.8 | 153.2 | 163.1 |
| | Net dimensions (WxHxD) | in. | 34-5/8 x 25-1/8 x 57-3/8 × 17-3/8 × 30-3/412-1/4 | 37 x 39-3/8 x 13 | 37 x 39-3/8 x 13 |
| | Shipping dimensions (WxHxD) | in. | 40-1/4 x 29-1/2 x 16–1/4 | 39-1/4 x 43–1/8 x 16-3/4 | 39-1/4 x 43-1/8 x 16-3/4 |
| Refrigerant | Type | | R-410A | R-410A | R-410A |
| | Control method | | EEV | EEV | EEV |
| | Factory charge | oz. | 45.86 | 74.08 | 91.71 |
| | Additional charge | oz./ft | 0.11 | 0.11 | 0.24 |

**Note:** Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation requirements.

**Table 6. Outdoor unit specifications for 36, 42, and 48 capacity units**

| Outdoor Unit Model Number | | | 4TUK4536A10N0* | 4TUK4542A10N0* | 4TUK4548A10N0* |
|---|---|---|---|---|---|
| Compressor | Type | | Rotary inverter | Rotary inverter | Rotary inverter |
| | Oil | | POE | POE | POE |
| | RLA | A | 17.0 | 17.0 | 17.0 |
| Fan | Motor type | | BLDC | BLDC | BLDC |
| | Output x n | W | 125 x 2 | 125 x 2 | 125 x 2 |
| | FLA | A | 0.48 x 2 | 0.48 x 2 | 0.48 x 2 |
| | Fan type | | Propeller | Propeller | Propeller |
| | Air flow rate | cfm | 3040 | 3040 | 3040 |
| Electrical | MCA | A | 26.5 | 26.5 | 26.5 |
| | MOP | A | 35 | 35 | 35 |
| Coil | Construction | | Aluminum micro channel | Aluminum micro channel | Aluminum micro channel |
| Sound | Sound pressure level (Clg/Htg) | dBA | 49/51 | 51/53 | 53/55 |
| | Sound power level | dBA | 65 | 66 | 67 |
| Connections | Type | | Flare | Flare | Flare |
| | Liquid pipe | dia., in. | 3/8 | 3/8 | 3/8 |
| | Gas pipe | dia., in. | 5/8 | 5/8 | 5/8 |
| Dimensions | Net weight | lbs. | 194 | 194 | 194 |
| | Shipping weight | lbs. | 216.1 | 216.1 | 216.1 |
| | Net dimensions (WxHxD) | in. | 37 x 47-5/8 x 13 | 37 x 47-5/8 x 13 | 37 x 47-5/8 x 13 |
| | Shipping dimensions (WxHxD) | in. | 39-1/4 x 54-5/8 x 16-3/4 | 39-1/4 x 54-5/8 x 16-3/4 | 39-1/4 x 54-5/8 x 16-3/4 |
| Refrigerant | Type | | R-410A | R-410A | R-410A |
| | Control method | | EEV | EEV | EEV |
| | Factory charge | oz. | 98.77 | 98.77 | 98.77 |
| | Additional charge | oz./ft | 0.35 | 0.35 | 0.35 |

**Note:** Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation requirements.

**Table 7. Application limit specification for 18, 24, and 30 capacity units**

| Application limits | | | 4MUD4518A10N0*/ 4TUK4518A10N0* | 4MUD4524A10N0*/ 4TUK4524A10N0* | 4MUD4530A10N0*/ 4TUK4530A10N0* |
|---|---|---|---|---|---|
| Outdoor unit operating range | Cooling | Without wind baffle | 23–115° F (-5–46.1°C) | 23–115° F (-5–46.1°C) | 23–115° F (-5–46.1°C) |
| | | With wind baffle | 0–115° F (-17.8–46.1°C) | 0–115° F (-17.8–46.1°C) | 0–115° F (-17.8–46.1°C) |
| | Heating | | -4–75° F (-20–23.9°C) | -4–75° F (-20–23.9°C) | -4–75° F (-20–23.9°C) |
| Refrigerant piping | Max. length ft | | 98 | 164 | 164 |
| | Max. length with no additional refrigerant ft | | 25 | 25 | 25 |
| | Max. height difference ft | | 66 | 98 | 98 |

**Table 8. Application limit specification for 36, 42 and 48 capacity units**

| Application limits | | | 4MUD4536A10N0*/ 4TUK4536A10N0* | 4MUD4542A10N0*/ 4TUK4542A10N0* | 4MUD4548A10N0*/ 4TUK4548A10N0* |
|---|---|---|---|---|---|
| Outdoor unit operating range | Cooling | Without wind baffle | 23–115° F (-5–46.1°C) | 23–115° F (-5–46.1°C)F | 23–115° F (-5–46.1°C) |
| | | With wind baffle | 0–115° F (-17.8–46.1°C) | 0–115° F (-17.8–46.1°C) | 0–115° F (-17.8–46.1°C) |
| | Heating | | -4–75° F (-20–23.9°C) | -4–75° F (-20–23.9°C) | -4–75° F (-20–23.9°C) |
| Refrigerant piping | Max. length ft | | 246 | 246 | 246 |
| | Max. length with no additional refrigerant ft | | 25 | 25 | 25 |
| | Max. height difference ft | | 98 | 98 | 98 |

# Capacity Tables

**Table 9. Capacity table for 4MUD4518A10N0* and 4TUK4518A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 19.7 | 15.7 | 20.2 | 16.1 | 20.7 | 16.6 | 21.1 | 16.9 |
| 10 | 19.9 | 15.9 | 20.4 | 16.3 | 20.9 | 16.8 | 21.3 | 17.1 |
| 20 | 20.1 | 16.1 | 20.6 | 16.5 | 21.2 | 16.9 | 21.6 | 17.2 |
| 30 | 20.3 | 16.2 | 20.8 | 16.7 | 21.4 | 17.1 | 21.8 | 17.4 |
| 40 | 20.5 | 16.4 | 21.1 | 16.8 | 21.6 | 17.3 | 22.0 | 17.6 |
| 50 | 20.7 | 16.6 | 21.3 | 17.0 | 21.8 | 17.5 | 22.2 | 17.8 |
| 54 | 20.8 | 16.6 | 21.4 | 17.1 | 21.9 | 17.5 | 22.3 | 17.9 |
| 58 | 20.9 | 16.7 | 21.4 | 17.2 | 22.0 | 17.6 | 22.4 | 17.9 |
| 60 | 20.9 | 16.7 | 21.5 | 17.2 | 22.1 | 17.7 | 22.5 | 18.0 |
| 64 | 21.0 | 16.8 | 21.6 | 17.3 | 22.2 | 17.7 | 22.6 | 18.1 |
| 67 | 21.1 | 16.9 | 21.6 | 17.3 | 22.2 | 17.8 | 22.6 | 18.1 |
| 70 | 21.1 | 16.9 | 21.7 | 17.4 | 22.3 | 17.8 | 22.7 | 18.2 |
| 73 | 20.6 | 16.5 | 21.2 | 16.9 | 21.7 | 17.4 | 22.1 | 17.7 |
| 77 | 19.9 | 15.9 | 20.5 | 16.4 | 21.0 | 16.8 | 21.4 | 17.1 |
| 80 | 19.4 | 15.5 | 19.9 | 15.9 | 20.4 | 16.4 | 20.8 | 16.7 |
| 84 | 18.7 | 15.0 | 19.2 | 15.4 | 19.7 | 15.8 | 20.1 | 16.1 |
| 88 | 18.0 | 14.4 | 18.5 | 14.8 | 19.0 | 15.2 | 19.3 | 15.5 |
| 92 | 17.3 | 13.8 | 17.8 | 14.2 | 18.2 | 14.6 | 18.6 | 14.9 |
| 95 | 16.8 | 13.4 | 17.2 | 13.8 | 17.7 | 14.1 | 18.0 | 14.4 |
| 99 | 16.3 | 13.0 | 16.7 | 13.4 | 17.2 | 13.7 | 17.5 | 14.0 |
| 103 | 15.8 | 12.7 | 16.3 | 13.0 | 16.7 | 13.4 | 17.0 | 13.6 |
| 107 | 15.4 | 12.3 | 15.8 | 12.6 | 16.2 | 13.0 | 16.5 | 13.2 |
| 111 | 14.9 | 11.9 | 15.3 | 12.2 | 15.7 | 12.6 | 16.0 | 12.8 |
| 115 | 14.4 | 11.6 | 14.8 | 11.9 | 15.2 | 12.2 | 15.5 | 12.4 |

**Notes:**

1. Capacity index: Total capacity (TC) = 18 MBh; sensible heat capacity (SHC) = 14.4 MBh.
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 10. Capacity table for 4MUD4518A10N0* and 4TUK4518A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 21.6 | 17.3 | 22.0 | 17.6 | 22.1 | 17.7 |
| 10 | 21.9 | 17.5 | 22.2 | 17.8 | 22.4 | 17.9 |
| 20 | 22.1 | 17.7 | 22.4 | 17.9 | 22.6 | 18.1 |
| 30 | 22.3 | 17.9 | 22.7 | 18.1 | 22.8 | 18.3 |
| 40 | 22.6 | 18.1 | 22.9 | 18.3 | 23.1 | 18.5 |
| 50 | 22.8 | 18.2 | 23.1 | 18.5 | 23.3 | 18.7 |
| 54 | 22.9 | 18.3 | 23.2 | 18.6 | 23.4 | 18.7 |
| 58 | 23.0 | 18.4 | 23.3 | 18.7 | 23.5 | 18.8 |
| 60 | 23.0 | 18.4 | 23.4 | 18.7 | 23.6 | 18.9 |
| 64 | 23.1 | 18.5 | 23.5 | 18.8 | 23.7 | 18.9 |
| 67 | 23.2 | 18.6 | 23.5 | 18.8 | 23.7 | 19.0 |
| 70 | 23.3 | 18.6 | 23.6 | 18.9 | 23.8 | 19.0 |
| 73 | 22.7 | 18.2 | 23.0 | 18.4 | 23.2 | 18.6 |
| 77 | 21.9 | 17.5 | 22.2 | 17.8 | 22.4 | 17.9 |
| 80 | 21.3 | 17.1 | 21.7 | 17.3 | 21.8 | 17.5 |
| 84 | 20.6 | 16.5 | 20.9 | 16.7 | 21.0 | 16.8 |
| 88 | 19.8 | 15.8 | 20.1 | 16.1 | 20.3 | 16.2 |
| 92 | 19.0 | 15.2 | 19.3 | 15.5 | 19.5 | 15.6 |
| 95 | 18.5 | 14.8 | 18.7 | 15.0 | 18.9 | 15.1 |
| 99 | 17.9 | 14.4 | 18.2 | 14.6 | 18.4 | 14.7 |
| 103 | 17.4 | 13.9 | 17.7 | 14.1 | 17.8 | 14.3 |
| 107 | 16.9 | 13.5 | 17.2 | 13.7 | 17.3 | 13.8 |
| 111 | 16.4 | 13.1 | 16.6 | 13.3 | 16.8 | 13.4 |
| 115 | 15.9 | 12.7 | 16.1 | 12.9 | 16.3 | 13.0 |

**Notes**:

**1**. Capacity index: Total capacity (TC) = 18 MBh; sensible heat capacity (SHC) = 14.4 MBh.
**2**. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
**3**. Refrigerant piping length: 16.4 ft
**4**. Level difference : 0 ft

**Table 11. Capacity tables for 4MUD4518A10N0* and 4TUK4518A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 9.9 | 9.8 | 9.6 | 9.5 | 9.4 |
| -1.0 | 11.1 | 11.0 | 10.7 | 10.6 | 10.5 |
| 2 | 12.2 | 12.1 | 11.9 | 11.7 | 11.6 |
| 6 | 13.8 | 13.6 | 13.4 | 13.2 | 13.1 |
| 10 | 15.2 | 15.1 | 14.8 | 14.7 | 14.5 |
| 13 | 16.6 | 16.4 | 16.1 | 15.9 | 15.8 |
| 17 | 17.1 | 16.9 | 16.6 | 16.4 | 16.2 |
| 19 | 17.3 | 17.1 | 16.8 | 16.6 | 16.5 |
| 23 | 17.8 | 17.6 | 17.2 | 17.1 | 16.9 |
| 26 | 18.1 | 17.9 | 17.6 | 17.4 | 17.2 |
| 30 | 18.6 | 18.4 | 18.1 | 17.9 | 17.7 |
| 35 | 19.2 | 19.0 | 18.6 | 18.4 | 18.2 |
| 39 | 19.6 | 19.4 | 19.1 | 18.9 | 18.7 |
| 44 | 20.2 | 20.0 | 19.6 | 19.5 | 19.3 |
| 47 | 20.6 | 20.4 | 20.0 | 19.8 | 19.6 |
| 51 | 21.3 | 21.1 | 20.6 | 20.4 | 20.2 |
| 54 | 21.8 | 21.6 | 21.2 | 20.9 | 20.7 |
| 57 | 22.3 | 22.1 | 21.6 | 21.4 | 21.2 |
| 60 | 22.8 | 22.6 | 22.1 | 21.9 | 21.7 |
| 65 | 23.6 | 23.4 | 23.0 | 22.7 | 22.5 |
| 70 | 24.5 | 24.3 | 23.8 | 23.5 | 23.3 |
| 75 | 25.3 | 25.1 | 24.6 | 24.4 | 24.1 |

**Notes:**

1. Capacity index: Total capacity (TC) = 20 MBh
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 12. Capacity table for 4MUD4524A10N0* and 4TUK4524A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 25.2 | 20.2 | 25.9 | 20.7 | 26.6 | 21.3 | 27.1 | 21.7 |
| 10 | 25.3 | 20.2 | 26.0 | 20.8 | 26.7 | 21.3 | 27.2 | 21.7 |
| 20 | 25.4 | 20.3 | 26.0 | 20.8 | 26.7 | 21.4 | 27.2 | 21.8 |
| 30 | 25.4 | 20.3 | 26.1 | 20.9 | 26.8 | 21.4 | 27.3 | 21.8 |
| 40 | 25.5 | 20.4 | 26.1 | 20.9 | 26.8 | 21.5 | 27.3 | 21.9 |
| 50 | 25.5 | 20.4 | 26.2 | 21.0 | 26.9 | 21.5 | 27.4 | 21.9 |
| 54 | 25.5 | 20.4 | 26.2 | 21.0 | 26.9 | 21.5 | 27.4 | 21.9 |
| 58 | 25.6 | 20.4 | 26.2 | 21.0 | 26.9 | 21.6 | 27.4 | 21.9 |
| 60 | 25.6 | 20.5 | 26.2 | 21.0 | 26.9 | 21.6 | 27.4 | 22.0 |
| 64 | 25.6 | 20.5 | 26.3 | 21.0 | 27.0 | 21.6 | 27.5 | 22.0 |
| 67 | 25.6 | 20.5 | 26.3 | 21.0 | 27.0 | 21.6 | 27.5 | 22.0 |
| 70 | 25.6 | 20.5 | 26.3 | 21.0 | 27.0 | 21.6 | 27.5 | 22.0 |
| 73 | 25.2 | 20.2 | 25.9 | 20.7 | 26.6 | 21.3 | 27.1 | 21.7 |
| 77 | 24.7 | 19.8 | 25.4 | 20.3 | 26.0 | 20.8 | 26.5 | 21.2 |
| 80 | 24.3 | 19.5 | 25.0 | 20.0 | 25.6 | 20.5 | 26.1 | 20.9 |
| 84 | 23.8 | 19.0 | 24.4 | 19.5 | 25.1 | 20.1 | 25.5 | 20.4 |
| 88 | 23.3 | 18.6 | 23.9 | 19.1 | 24.5 | 19.6 | 25.0 | 20.0 |
| 92 | 22.7 | 18.2 | 23.4 | 18.7 | 24.0 | 19.2 | 24.4 | 19.5 |
| 95 | 22.4 | 17.9 | 23.0 | 18.4 | 23.6 | 18.9 | 24.0 | 19.2 |
| 99 | 22.1 | 17.7 | 22.7 | 18.1 | 23.3 | 18.6 | 23.7 | 19.0 |
| 103 | 21.8 | 17.4 | 22.4 | 17.9 | 23.0 | 18.4 | 23.4 | 18.7 |
| 107 | 21.5 | 17.2 | 22.1 | 17.7 | 22.7 | 18.1 | 23.1 | 18.5 |
| 111 | 21.2 | 17.0 | 21.8 | 17.4 | 22.4 | 17.9 | 22.8 | 18.2 |
| 115 | 21.0 | 16.8 | 21.5 | 17.2 | 22.1 | 17.7 | 22.5 | 18.0 |

**Notes**:

**1**. Capacity index: Total capacity (TC) = 24 MBh; sensible heat capacity (SHC) = 19.2 MBh.
**2**. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
**3**. Refrigerant piping length: 16.4 ft
**4**. Level difference : 0 ft

**Table 13. Capacity table for 4MUD4524A10N0* and 4TUK4524A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 27.8 | 22.2 | 28.2 | 22.6 | 28.4 | 22.7 |
| 10 | 27.8 | 22.3 | 28.3 | 22.6 | 28.5 | 22.8 |
| 20 | 27.9 | 22.3 | 28.3 | 22.7 | 28.5 | 22.8 |
| 30 | 28.0 | 22.4 | 28.4 | 22.7 | 28.6 | 22.9 |
| 40 | 28.0 | 22.4 | 28.4 | 22.7 | 28.7 | 22.9 |
| 50 | 28.1 | 22.5 | 28.5 | 22.8 | 28.7 | 23.0 |
| 54 | 28.1 | 22.5 | 28.5 | 22.8 | 28.7 | 23.0 |
| 58 | 28.1 | 22.5 | 28.5 | 22.8 | 28.8 | 23.0 |
| 60 | 28.1 | 22.5 | 28.6 | 22.8 | 28.8 | 23.0 |
| 64 | 28.2 | 22.5 | 28.6 | 22.9 | 28.8 | 23.0 |
| 67 | 28.2 | 22.5 | 28.6 | 22.9 | 28.8 | 23.1 |
| 70 | 28.2 | 22.6 | 28.6 | 22.9 | 28.8 | 23.1 |
| 73 | 27.8 | 22.2 | 28.2 | 22.5 | 28.4 | 22.7 |
| 77 | 27.2 | 21.7 | 27.6 | 22.1 | 27.8 | 22.2 |
| 80 | 26.8 | 21.4 | 27.2 | 21.7 | 27.4 | 21.9 |
| 84 | 26.2 | 20.9 | 26.6 | 21.3 | 26.8 | 21.4 |
| 88 | 25.6 | 20.5 | 26.0 | 20.8 | 26.2 | 21.0 |
| 92 | 25.0 | 20.0 | 25.4 | 20.3 | 25.6 | 20.5 |
| 95 | 24.6 | 19.7 | 25.0 | 20.0 | 25.2 | 20.1 |
| 99 | 24.3 | 19.4 | 24.7 | 19.7 | 24.9 | 19.9 |
| 103 | 24.0 | 19.2 | 24.3 | 19.5 | 24.5 | 19.6 |
| 107 | 23.7 | 18.9 | 24.0 | 19.2 | 24.2 | 19.4 |
| 111 | 23.4 | 18.7 | 23.7 | 19.0 | 23.9 | 19.1 |
| 115 | 23.1 | 18.5 | 23.4 | 18.7 | 23.6 | 18.9 |

**Notes:**

**1**. Capacity index: Total capacity (TC) = 24 MBh; sensible heat capacity (SHC) = 19.2 MBh.
**2**. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
**3**. Refrigerant piping length: 16.4 ft
**4**. Level difference : 0 ft

**Table 14. Capacity tables for 4MUD4524A10N0* and 4TUK4524A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 14.9 | 14.8 | 14.5 | 14.4 | 14.2 |
| -1.0 | 15.9 | 15.8 | 15.5 | 15.3 | 15.2 |
| 2 | 16.9 | 16.8 | 16.4 | 16.3 | 16.1 |
| 6 | 18.3 | 18.1 | 17.7 | 17.6 | 17.4 |
| 10 | 19.5 | 19.4 | 19.0 | 18.8 | 18.6 |
| 13 | 20.7 | 20.5 | 20.1 | 19.9 | 19.7 |
| 17 | 21.5 | 21.3 | 20.9 | 20.7 | 20.5 |
| 19 | 22.0 | 21.7 | 21.3 | 21.1 | 20.9 |
| 23 | 22.8 | 22.6 | 22.1 | 21.9 | 21.7 |
| 26 | 23.4 | 23.2 | 22.7 | 22.5 | 22.3 |
| 30 | 24.3 | 24.0 | 23.6 | 23.3 | 23.1 |
| 35 | 25.3 | 25.0 | 24.5 | 24.3 | 24.1 |
| 39 | 26.1 | 25.9 | 25.3 | 25.1 | 24.8 |
| 44 | 27.2 | 26.9 | 26.4 | 26.1 | 25.9 |
| 47 | 27.8 | 27.5 | 27.0 | 26.7 | 26.5 |
| 51 | 29.0 | 28.7 | 28.2 | 27.9 | 27.6 |
| 54 | 30.0 | 29.7 | 29.1 | 28.8 | 28.5 |
| 57 | 30.9 | 30.6 | 30.0 | 29.7 | 29.4 |
| 60 | 31.8 | 31.5 | 30.9 | 30.6 | 30.3 |
| 65 | 33.4 | 33.1 | 32.4 | 32.1 | 31.8 |
| 70 | 34.9 | 34.6 | 33.9 | 33.6 | 33.2 |
| 75 | 36.5 | 36.1 | 35.4 | 35.0 | 34.7 |

**Notes:**

1. Capacity index: Total capacity (TC) = 27 MBh.
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 15. Capacity table for 4MUD4530A10N0* and 4TUK4530A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 32.4 | 25.9 | 33.3 | 26.6 | 34.2 | 27.3 | 34.8 | 27.8 |
| 10 | 32.4 | 25.9 | 33.2 | 26.6 | 34.1 | 27.3 | 34.7 | 27.8 |
| 20 | 32.3 | 25.9 | 33.2 | 26.5 | 34.1 | 27.2 | 34.7 | 27.7 |
| 30 | 32.3 | 25.8 | 33.1 | 26.5 | 34.0 | 27.2 | 34.6 | 27.7 |
| 40 | 32.2 | 25.8 | 33.1 | 26.5 | 33.9 | 27.2 | 34.6 | 27.7 |
| 50 | 32.2 | 25.7 | 33.0 | 26.4 | 33.9 | 27.1 | 34.5 | 27.6 |
| 54 | 32.1 | 25.7 | 33.0 | 26.4 | 33.9 | 27.1 | 34.5 | 27.6 |
| 58 | 32.1 | 25.7 | 33.0 | 26.4 | 33.8 | 27.1 | 34.5 | 27.6 |
| 60 | 32.1 | 25.7 | 33.0 | 26.4 | 33.8 | 27.1 | 34.5 | 27.6 |
| 64 | 32.1 | 25.7 | 32.9 | 26.3 | 33.8 | 27.1 | 34.4 | 27.5 |
| 67 | 32.1 | 25.7 | 32.9 | 26.3 | 33.8 | 27.0 | 34.4 | 27.5 |
| 70 | 32.0 | 25.6 | 32.9 | 26.3 | 33.8 | 27.0 | 34.4 | 27.5 |
| 73 | 31.6 | 25.2 | 32.4 | 25.9 | 33.3 | 26.6 | 33.9 | 27.1 |
| 77 | 30.9 | 24.7 | 31.7 | 25.4 | 32.6 | 26.1 | 33.2 | 26.5 |
| 80 | 30.4 | 24.3 | 31.2 | 25.0 | 32.1 | 25.6 | 32.6 | 26.1 |
| 84 | 29.8 | 23.8 | 30.5 | 24.4 | 31.4 | 25.1 | 31.9 | 25.5 |
| 88 | 29.1 | 23.3 | 29.9 | 23.9 | 30.7 | 24.5 | 31.2 | 25.0 |
| 92 | 28.4 | 22.8 | 29.2 | 23.4 | 30.0 | 24.0 | 30.5 | 24.4 |
| 95 | 27.9 | 22.4 | 28.7 | 23.0 | 29.5 | 23.6 | 30.0 | 24.0 |
| 99 | 27.0 | 21.6 | 27.7 | 22.2 | 28.4 | 22.8 | 29.0 | 23.2 |
| 103 | 26.0 | 20.8 | 26.7 | 21.4 | 27.4 | 21.9 | 27.9 | 22.3 |
| 107 | 25.0 | 20.0 | 25.7 | 20.6 | 26.4 | 21.1 | 26.9 | 21.5 |
| 111 | 24.1 | 19.3 | 24.7 | 19.8 | 25.4 | 20.3 | 25.8 | 20.7 |
| 115 | 23.1 | 18.5 | 23.7 | 19.0 | 24.4 | 19.5 | 24.8 | 19.8 |

**Notes:**

**1**. Capacity index: Total capacity (TC) = 30 MBh; sensible heat capacity (SHC) = 24 MBh.
**2**. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
**3**. Refrigerant piping length: 16.4 ft
**4**. Level difference : 0 ft

**Table 16. Capacity table for 4MUD4530A10N0* and 4TUK4530A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 35.7 | 28.5 | 36.2 | 29.0 | 36.5 | 29.2 |
| 10 | 35.6 | 28.5 | 36.1 | 28.9 | 36.4 | 29.1 |
| 20 | 35.6 | 28.4 | 36.1 | 28.9 | 36.4 | 29.1 |
| 30 | 35.5 | 28.4 | 36.0 | 28.8 | 36.3 | 29.1 |
| 40 | 35.4 | 28.3 | 36.0 | 28.8 | 36.3 | 29.0 |
| 50 | 35.4 | 28.3 | 35.9 | 28.7 | 36.2 | 29.0 |
| 54 | 35.4 | 28.3 | 35.9 | 28.7 | 36.2 | 28.9 |
| 58 | 35.3 | 28.3 | 35.9 | 28.7 | 36.1 | 28.9 |
| 60 | 35.3 | 28.3 | 35.8 | 28.7 | 36.1 | 28.9 |
| 64 | 35.3 | 28.2 | 35.8 | 28.7 | 36.1 | 28.9 |
| 67 | 35.3 | 28.2 | 35.8 | 28.6 | 36.1 | 28.9 |
| 70 | 35.3 | 28.2 | 35.8 | 28.6 | 36.1 | 28.9 |
| 73 | 34.7 | 27.8 | 35.2 | 28.2 | 35.5 | 28.4 |
| 77 | 34.0 | 27.2 | 34.5 | 27.6 | 34.8 | 27.8 |
| 80 | 33.5 | 26.8 | 34.0 | 27.2 | 34.2 | 27.4 |
| 84 | 32.7 | 26.2 | 33.2 | 26.6 | 33.5 | 26.8 |
| 88 | 32.0 | 25.6 | 32.5 | 26.0 | 32.8 | 26.2 |
| 92 | 31.3 | 25.0 | 31.8 | 25.4 | 32.0 | 25.6 |
| 95 | 30.8 | 24.6 | 31.2 | 25.0 | 31.5 | 25.2 |
| 99 | 29.7 | 23.7 | 30.1 | 24.1 | 30.4 | 24.3 |
| 103 | 28.6 | 22.9 | 29.0 | 23.2 | 29.3 | 23.4 |
| 107 | 27.6 | 22.0 | 28.0 | 22.4 | 28.2 | 22.6 |
| 111 | 26.5 | 21.2 | 26.9 | 21.5 | 27.1 | 21.7 |
| 115 | 25.4 | 20.3 | 25.8 | 20.6 | 26.0 | 20.8 |

**Notes:**

1. Capacity index: Total capacity (TC) = 30 MBh; sensible heat capacity (SHC) = 24 MBh.
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 17. Capacity tables for 4MUD4530A10N0* and 4TUK4530A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 19.8 | 19.6 | 19.2 | 19.0 | 18.8 |
| -1.0 | 20.6 | 20.4 | 20.0 | 19.8 | 19.6 |
| 2 | 21.3 | 21.1 | 20.7 | 20.5 | 20.3 |
| 6 | 22.3 | 22.1 | 21.7 | 21.5 | 21.3 |
| 10 | 23.3 | 23.1 | 22.6 | 22.4 | 22.2 |
| 13 | 35.1 | 34.8 | 34.1 | 33.8 | 33.4 |
| 17 | 34.9 | 34.5 | 33.9 | 33.5 | 33.2 |
| 19 | 34.7 | 34.4 | 33.7 | 33.4 | 33.1 |
| 23 | 34.5 | 34.2 | 33.5 | 33.2 | 32.8 |
| 26 | 34.3 | 34.0 | 33.3 | 33.0 | 32.6 |
| 30 | 34.0 | 33.7 | 33.1 | 32.7 | 32.4 |
| 35 | 33.7 | 33.4 | 32.7 | 32.4 | 32.1 |
| 39 | 33.5 | 33.2 | 32.5 | 32.2 | 31.9 |
| 44 | 33.2 | 32.8 | 32.2 | 31.9 | 31.5 |
| 47 | 33.0 | 32.6 | 32.0 | 31.7 | 31.4 |
| 51 | 34.4 | 34.1 | 33.4 | 33.1 | 32.7 |
| 54 | 35.5 | 35.2 | 34.5 | 34.2 | 33.8 |
| 57 | 36.6 | 36.2 | 35.5 | 35.2 | 34.8 |
| 60 | 37.7 | 37.4 | 36.6 | 36.3 | 35.9 |
| 65 | 39.6 | 39.2 | 38.4 | 38.1 | 37.7 |
| 70 | 41.4 | 41.0 | 40.2 | 39.8 | 39.4 |
| 75 | 43.3 | 42.8 | 42.0 | 41.6 | 41.2 |

**Notes:**

1. Capacity index: Total capacity (TC) = 32 MBh
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 18. Capacity table for 4MUD4536A10N0* and 4TUK4536A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 36.1 | 28.8 | 37.0 | 29.6 | 38.0 | 30.4 | 38.7 | 31.0 |
| 10 | 36.0 | 28.8 | 37.0 | 29.6 | 38.0 | 30.4 | 38.7 | 30.9 |
| 20 | 36.0 | 28.8 | 36.9 | 29.5 | 37.9 | 30.3 | 38.6 | 30.9 |
| 30 | 35.9 | 28.7 | 36.9 | 29.5 | 37.9 | 30.3 | 38.6 | 30.9 |
| 40 | 35.9 | 28.7 | 36.9 | 29.5 | 37.8 | 30.3 | 38.5 | 30.8 |
| 50 | 35.9 | 28.7 | 36.8 | 29.4 | 37.8 | 30.2 | 38.5 | 30.8 |
| 54 | 35.8 | 28.7 | 36.8 | 29.4 | 37.8 | 30.2 | 38.5 | 30.8 |
| 58 | 35.8 | 28.7 | 36.8 | 29.4 | 37.8 | 30.2 | 38.5 | 30.8 |
| 60 | 35.8 | 28.7 | 36.8 | 29.4 | 37.8 | 30.2 | 38.4 | 30.8 |
| 64 | 35.8 | 28.6 | 36.8 | 29.4 | 37.7 | 30.2 | 38.4 | 30.7 |
| 67 | 35.8 | 28.6 | 36.7 | 29.4 | 37.7 | 30.2 | 38.4 | 30.7 |
| 70 | 35.8 | 28.6 | 36.7 | 29.4 | 37.7 | 30.2 | 38.4 | 30.7 |
| 73 | 35.5 | 28.4 | 36.5 | 29.2 | 37.4 | 29.9 | 38.1 | 30.5 |
| 77 | 35.1 | 28.1 | 36.1 | 28.9 | 37.0 | 29.6 | 37.7 | 30.2 |
| 80 | 34.9 | 27.9 | 35.8 | 28.6 | 36.8 | 29.4 | 37.4 | 30.0 |
| 84 | 34.5 | 27.6 | 35.4 | 28.4 | 36.4 | 29.1 | 37.1 | 29.6 |
| 88 | 34.2 | 27.3 | 35.1 | 28.1 | 36.0 | 28.8 | 36.7 | 29.3 |
| 92 | 33.8 | 27.0 | 34.7 | 27.8 | 35.6 | 28.5 | 36.3 | 29.0 |
| 95 | 33.5 | 26.8 | 34.4 | 27.5 | 35.4 | 28.3 | 36.0 | 28.8 |
| 99 | 31.4 | 25.1 | 32.2 | 25.8 | 33.1 | 26.5 | 33.7 | 26.9 |
| 103 | 29.2 | 23.4 | 30.0 | 24.0 | 30.8 | 24.6 | 31.4 | 25.1 |
| 107 | 27.1 | 21.6 | 27.8 | 22.2 | 28.5 | 22.8 | 29.0 | 23.2 |
| 111 | 24.9 | 19.9 | 25.6 | 20.4 | 26.2 | 21.0 | 26.7 | 21.4 |
| 115 | 22.7 | 18.2 | 23.3 | 18.7 | 24.0 | 19.2 | 24.4 | 19.5 |

**Notes**:

1. Capacity index: Total capacity (TC) = 36 MBh; sensible heat capacity (SHC) = 28.8 MBh
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 19. Capacity table for 4MUD4536A10N0* and 4TUK4536A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 39.7 | 31.7 | 40.3 | 32.2 | 40.6 | 32.5 |
| 10 | 39.6 | 31.7 | 40.2 | 32.2 | 40.5 | 32.4 |
| 20 | 39.6 | 31.7 | 40.2 | 32.1 | 40.5 | 32.4 |
| 30 | 39.5 | 31.6 | 40.1 | 32.1 | 40.4 | 32.4 |
| 40 | 39.5 | 31.6 | 40.1 | 32.1 | 40.4 | 32.3 |
| 50 | 39.4 | 31.6 | 40.0 | 32.0 | 40.4 | 32.3 |
| 54 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.3 |
| 58 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.3 |
| 60 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.3 |
| 64 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.2 |
| 67 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.2 |
| 70 | 39.4 | 31.5 | 40.0 | 32.0 | 40.3 | 32.2 |
| 73 | 39.1 | 31.3 | 39.7 | 31.7 | 40.0 | 32.0 |
| 77 | 38.7 | 30.9 | 39.3 | 31.4 | 39.6 | 31.7 |
| 80 | 38.4 | 30.7 | 39.0 | 31.2 | 39.3 | 31.4 |
| 84 | 38.0 | 30.4 | 38.6 | 30.8 | 38.9 | 31.1 |
| 88 | 37.6 | 30.1 | 38.2 | 30.5 | 38.5 | 30.8 |
| 92 | 37.2 | 29.8 | 37.8 | 30.2 | 38.1 | 30.4 |
| 95 | 36.9 | 29.5 | 37.5 | 30.0 | 37.8 | 30.2 |
| 99 | 34.5 | 27.6 | 35.0 | 28.0 | 35.3 | 28.3 |
| 103 | 32.1 | 25.7 | 32.6 | 26.1 | 32.9 | 26.3 |
| 107 | 29.8 | 23.8 | 30.2 | 24.2 | 30.5 | 24.4 |
| 111 | 27.4 | 21.9 | 27.8 | 22.2 | 28.0 | 22.4 |
| 115 | 25.0 | 20.0 | 25.4 | 20.3 | 25.6 | 20.5 |

**Notes**:

1. Capacity index: Total capacity (TC) = 36 MBh; sensible heat capacity (SHC) = 28.8 MBh
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 20. Capacity tables for 4MUD4536A10N0* and 4TUK4536A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 30.5 | 30.2 | 29.6 | 29.3 | 29.0 |
| -1.0 | 31.8 | 31.5 | 30.9 | 30.6 | 30.2 |
| 2 | 33.1 | 32.7 | 32.1 | 31.8 | 31.5 |
| 6 | 34.8 | 34.4 | 33.8 | 33.4 | 33.1 |
| 10 | 36.4 | 36.1 | 35.4 | 35.0 | 34.7 |
| 13 | 37.9 | 37.5 | 36.8 | 36.4 | 36.1 |
| 17 | 38.3 | 37.9 | 37.2 | 36.8 | 36.4 |
| 19 | 38.5 | 38.1 | 37.4 | 37.0 | 36.6 |
| 23 | 38.9 | 38.5 | 37.7 | 37.4 | 37.0 |
| 26 | 39.2 | 38.8 | 38.0 | 37.6 | 37.3 |
| 30 | 39.6 | 39.2 | 38.4 | 38.0 | 37.6 |
| 35 | 40.0 | 39.6 | 38.9 | 38.5 | 38.1 |
| 39 | 40.4 | 40.0 | 39.2 | 38.8 | 38.5 |
| 44 | 40.9 | 40.5 | 39.7 | 39.3 | 38.9 |
| 47 | 41.2 | 40.8 | 40.0 | 39.6 | 39.2 |
| 51 | 42.3 | 41.9 | 41.1 | 40.7 | 40.3 |
| 54 | 43.2 | 42.8 | 42.0 | 41.5 | 41.1 |
| 57 | 44.0 | 43.6 | 42.8 | 42.3 | 41.9 |
| 60 | 44.9 | 44.5 | 43.6 | 43.2 | 42.7 |
| 65 | 46.4 | 45.9 | 45.0 | 44.6 | 44.1 |
| 70 | 47.8 | 47.3 | 46.4 | 45.9 | 45.5 |
| 75 | 49.2 | 48.8 | 47.8 | 47.3 | 46.8 |

**Notes:**

1. Capacity index: Total capacity (TC) = 40 MBh
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 21. Capacity table for 4MUD4542A10N0* and 4TUK4542A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 42.0 | 33.6 | 43.1 | 34.5 | 44.3 | 35.4 | 45.1 | 36.1 |
| 10 | 41.9 | 33.5 | 43.0 | 34.4 | 44.1 | 35.3 | 44.9 | 36.0 |
| 20 | 41.7 | 33.4 | 42.8 | 34.3 | 44.0 | 35.2 | 44.8 | 35.8 |
| 30 | 41.6 | 33.3 | 42.7 | 34.1 | 43.8 | 35.1 | 44.6 | 35.7 |
| 40 | 41.4 | 33.1 | 42.5 | 34.0 | 43.7 | 34.9 | 44.5 | 35.6 |
| 50 | 41.3 | 33.0 | 42.4 | 33.9 | 43.5 | 34.8 | 44.3 | 35.5 |
| 54 | 41.2 | 33.0 | 42.3 | 33.9 | 43.5 | 34.8 | 44.3 | 35.4 |
| 58 | 41.2 | 32.9 | 42.3 | 33.8 | 43.4 | 34.7 | 44.2 | 35.4 |
| 60 | 41.1 | 32.9 | 42.2 | 33.8 | 43.4 | 34.7 | 44.2 | 35.3 |
| 64 | 41.1 | 32.9 | 42.2 | 33.7 | 43.3 | 34.6 | 44.1 | 35.3 |
| 67 | 41.0 | 32.8 | 42.1 | 33.7 | 43.3 | 34.6 | 44.0 | 35.2 |
| 70 | 41.0 | 32.8 | 42.1 | 33.7 | 43.2 | 34.6 | 44.0 | 35.2 |
| 73 | 40.8 | 32.6 | 41.9 | 33.5 | 43.0 | 34.4 | 43.8 | 35.0 |
| 77 | 40.5 | 32.4 | 41.5 | 33.2 | 42.7 | 34.1 | 43.4 | 34.8 |
| 80 | 40.2 | 32.2 | 41.3 | 33.1 | 42.4 | 33.9 | 43.2 | 34.6 |
| 84 | 39.9 | 32.0 | 41.0 | 32.8 | 42.1 | 33.7 | 42.9 | 34.3 |
| 88 | 39.6 | 31.7 | 40.7 | 32.6 | 41.8 | 33.4 | 42.6 | 34.0 |
| 92 | 39.4 | 31.5 | 40.4 | 32.3 | 41.5 | 33.2 | 42.2 | 33.8 |
| 95 | 39.1 | 31.3 | 40.2 | 32.1 | 41.2 | 33.0 | 42.0 | 33.6 |
| 99 | 37.0 | 29.6 | 38.0 | 30.4 | 39.0 | 31.2 | 39.7 | 31.8 |
| 103 | 34.8 | 27.9 | 35.8 | 28.6 | 36.7 | 29.4 | 37.4 | 29.9 |
| 107 | 32.7 | 26.2 | 33.6 | 26.9 | 34.5 | 27.6 | 35.1 | 28.1 |
| 111 | 30.6 | 24.4 | 31.4 | 25.1 | 32.2 | 25.8 | 32.8 | 26.2 |
| 115 | 28.4 | 22.7 | 29.2 | 23.3 | 30.0 | 24.0 | 30.5 | 24.4 |

**Notes:**

1. Capacity index: Total capacity (TC) = 42 MBh; sensible heat capacity (SHC) = 33.6 MBh
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 22. Capacity table for 4MUD4542A10N0* and 4TUK4542A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 46.2 | 37.0 | 46.9 | 37.5 | 47.3 | 37.8 |
| 10 | 46.1 | 36.9 | 46.8 | 37.4 | 47.1 | 37.7 |
| 20 | 45.9 | 36.7 | 46.6 | 37.3 | 47.0 | 37.6 |
| 30 | 45.7 | 36.6 | 46.4 | 37.1 | 46.8 | 37.4 |
| 40 | 45.6 | 36.5 | 46.3 | 37.0 | 46.6 | 37.3 |
| 50 | 45.4 | 36.3 | 46.1 | 36.9 | 46.5 | 37.2 |
| 54 | 45.4 | 36.3 | 46.0 | 36.8 | 46.4 | 37.1 |
| 58 | 45.3 | 36.2 | 46.0 | 36.8 | 46.3 | 37.1 |
| 60 | 45.3 | 36.2 | 45.9 | 36.8 | 46.3 | 37.0 |
| 64 | 45.2 | 36.2 | 45.9 | 36.7 | 46.2 | 37.0 |
| 67 | 45.1 | 36.1 | 45.8 | 36.7 | 46.2 | 37.0 |
| 70 | 45.1 | 36.1 | 45.8 | 36.6 | 46.1 | 36.9 |
| 73 | 44.9 | 35.9 | 45.5 | 36.4 | 45.9 | 36.7 |
| 77 | 44.5 | 35.6 | 45.2 | 36.2 | 45.6 | 36.4 |
| 80 | 44.3 | 35.4 | 44.9 | 36.0 | 45.3 | 36.2 |
| 84 | 44.0 | 35.2 | 44.6 | 35.7 | 45.0 | 36.0 |
| 88 | 43.6 | 34.9 | 44.3 | 35.4 | 44.6 | 35.7 |
| 92 | 43.3 | 34.6 | 43.9 | 35.2 | 44.3 | 35.4 |
| 95 | 43.1 | 34.4 | 43.7 | 35.0 | 44.0 | 35.2 |
| 99 | 40.7 | 32.6 | 41.3 | 33.0 | 41.6 | 33.3 |
| 103 | 38.3 | 30.7 | 38.9 | 31.1 | 39.2 | 31.4 |
| 107 | 36.0 | 28.8 | 36.5 | 29.2 | 36.8 | 29.4 |
| 111 | 33.6 | 26.9 | 34.1 | 27.3 | 34.4 | 27.5 |
| 115 | 31.3 | 25.0 | 31.7 | 25.4 | 32.0 | 25.6 |

**Notes**:

1. Capacity index: Total capacity (TC) = 42 MBh; sensible heat capacity (SHC) = 33.6 MBh
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 23. Capacity tables for 4MUD4542A10N0* and 4TUK4542A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 26.9 | 26.6 | 26.1 | 25.8 | 25.6 |
| -1.0 | 29.4 | 29.1 | 28.5 | 28.2 | 27.9 |
| 2 | 31.8 | 31.5 | 30.9 | 30.6 | 30.2 |
| 6 | 35.1 | 34.7 | 34.0 | 33.7 | 33.4 |
| 10 | 38.2 | 37.8 | 37.1 | 36.7 | 36.3 |
| 13 | 41.0 | 40.6 | 39.8 | 39.4 | 39.0 |
| 17 | 41.9 | 41.5 | 40.6 | 40.2 | 39.8 |
| 19 | 42.3 | 41.9 | 41.1 | 40.7 | 40.2 |
| 23 | 43.2 | 42.7 | 41.9 | 41.5 | 41.1 |
| 26 | 43.8 | 43.4 | 42.6 | 42.1 | 41.7 |
| 30 | 44.7 | 44.3 | 43.4 | 43.0 | 42.5 |
| 35 | 45.8 | 45.3 | 44.4 | 44.0 | 43.5 |
| 39 | 46.6 | 46.2 | 45.3 | 44.8 | 44.4 |
| 44 | 47.7 | 47.3 | 46.3 | 45.9 | 45.4 |
| 47 | 48.4 | 47.9 | 47.0 | 46.5 | 46.1 |
| 51 | 49.1 | 48.6 | 47.7 | 47.2 | 46.7 |
| 54 | 49.6 | 49.2 | 48.2 | 47.7 | 47.2 |
| 57 | 50.2 | 49.7 | 48.7 | 48.2 | 47.7 |
| 60 | 50.7 | 50.2 | 49.2 | 48.7 | 48.2 |
| 65 | 51.6 | 51.1 | 50.1 | 49.6 | 49.1 |
| 70 | 52.5 | 52.0 | 50.9 | 50.4 | 49.9 |
| 75 | 53.4 | 52.8 | 51.8 | 51.3 | 50.8 |

**Notes:**

1. Capacity index: Total capacity (TC) = 47 MBh
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 24. Capacity table for 4MUD4548A10N0* and 4TUK4548A10N0* (68°F, 73°F, 79°F, and 80°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 68 (20.0°C, DB) | | 73 (22.8°C, DB) | | 79 (26.1°C, DB) | | 80 (26.7°C, DB) | |
| | 57 (13.9°C, WB) | | 61 (19.4°C, WB) | | 64 (17.8°C, WB) | | 67 (19.4°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 50.1 | 40.1 | 51.5 | 41.2 | 52.8 | 42.3 | 53.8 | 43.0 |
| 10 | 50.0 | 40.0 | 51.3 | 41.1 | 52.7 | 42.2 | 53.7 | 42.9 |
| 20 | 49.9 | 39.9 | 51.2 | 40.9 | 52.6 | 42.0 | 53.5 | 42.8 |
| 30 | 49.7 | 39.8 | 51.0 | 40.8 | 52.4 | 41.9 | 53.4 | 42.7 |
| 40 | 49.6 | 39.7 | 50.9 | 40.7 | 52.3 | 41.8 | 53.2 | 42.6 |
| 50 | 49.5 | 39.6 | 50.8 | 40.6 | 52.1 | 41.7 | 53.1 | 42.5 |
| 54 | 49.4 | 39.5 | 50.7 | 40.6 | 52.1 | 41.7 | 53.0 | 42.4 |
| 58 | 49.3 | 39.5 | 50.7 | 40.5 | 52.0 | 41.6 | 53.0 | 42.4 |
| 60 | 49.3 | 39.5 | 50.6 | 40.5 | 52.0 | 41.6 | 52.9 | 42.4 |
| 64 | 49.3 | 39.4 | 50.6 | 40.5 | 51.9 | 41.5 | 52.9 | 42.3 |
| 67 | 49.2 | 39.4 | 50.5 | 40.4 | 51.9 | 41.5 | 52.8 | 42.3 |
| 70 | 49.2 | 39.4 | 50.5 | 40.4 | 51.8 | 41.5 | 52.8 | 42.2 |
| 73 | 48.7 | 38.9 | 50.0 | 40.0 | 51.3 | 41.0 | 52.2 | 41.8 |
| 77 | 47.9 | 38.3 | 49.2 | 39.4 | 50.5 | 40.4 | 51.5 | 41.2 |
| 80 | 47.4 | 37.9 | 48.7 | 38.9 | 50.0 | 40.0 | 50.9 | 40.7 |
| 84 | 46.7 | 37.3 | 47.9 | 38.3 | 49.2 | 39.4 | 50.1 | 40.1 |
| 88 | 46.0 | 36.8 | 47.2 | 37.8 | 48.5 | 38.8 | 49.3 | 39.5 |
| 92 | 45.3 | 36.2 | 46.5 | 37.2 | 47.7 | 38.2 | 48.6 | 38.9 |
| 95 | 44.7 | 35.8 | 45.9 | 36.7 | 47.1 | 37.7 | 48.0 | 38.4 |
| 99 | 41.6 | 33.3 | 42.7 | 34.2 | 43.8 | 35.1 | 44.6 | 35.7 |
| 103 | 38.5 | 30.8 | 39.5 | 31.6 | 40.5 | 32.4 | 41.3 | 33.0 |
| 107 | 35.3 | 28.3 | 36.3 | 29.0 | 37.2 | 29.8 | 37.9 | 30.3 |
| 111 | 32.2 | 25.8 | 33.1 | 26.4 | 33.9 | 27.2 | 34.6 | 27.6 |
| 115 | 29.1 | 23.3 | 29.8 | 23.9 | 30.6 | 24.5 | 31.2 | 25.0 |

**Notes**:

1. Capacity index: Total capacity (TC) = 48 MBh; sensible heat capacity (SHC) = 38.4 MBh
2. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

**Table 25. Capacity table for 4MUD4548A10N0* and 4TUK4548A10N0* (85°F, 87°F, and 89°F): cooling**

| Outdoor Air Temp. (°F DB) | Indoor Temperature (°F) | | | | | |
|---|---|---|---|---|---|---|
| | 85 (29.4°C , DB) | | 87 (30.6°C, DB) | | 89 (31.7°C, DB) | |
| | 70 (21.1°C, WB) | | 72 (22.2°C, WB) | | 75 (23.9°C, WB) | |
| | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) | TC (Btu/h) | SHC (Btu/h) |
| 0 | 55.1 | 44.1 | 56.0 | 44.8 | 56.4 | 45.1 |
| 10 | 55.0 | 44.0 | 55.8 | 44.7 | 56.3 | 45.0 |
| 20 | 54.9 | 43.9 | 55.7 | 44.5 | 56.1 | 44.9 |
| 30 | 54.7 | 43.8 | 55.5 | 44.4 | 56.0 | 44.8 |
| 40 | 54.6 | 43.6 | 55.4 | 44.3 | 55.8 | 44.7 |
| 50 | 54.4 | 43.5 | 55.2 | 44.2 | 55.7 | 44.5 |
| 54 | 54.4 | 43.5 | 55.2 | 44.1 | 55.6 | 44.5 |
| 58 | 54.3 | 43.4 | 55.1 | 44.1 | 55.6 | 44.4 |
| 60 | 54.3 | 43.4 | 55.1 | 44.1 | 55.5 | 44.4 |
| 64 | 54.2 | 43.4 | 55.0 | 44.0 | 55.5 | 44.4 |
| 67 | 54.2 | 43.3 | 55.0 | 44.0 | 55.4 | 44.3 |
| 70 | 54.1 | 43.3 | 54.9 | 43.9 | 55.4 | 44.3 |
| 73 | 53.5 | 42.8 | 54.3 | 43.5 | 54.8 | 43.8 |
| 77 | 52.7 | 42.2 | 53.5 | 42.8 | 54.0 | 43.2 |
| 80 | 52.2 | 41.7 | 52.9 | 42.3 | 53.4 | 42.7 |
| 84 | 51.4 | 41.1 | 52.1 | 41.7 | 52.6 | 42.0 |
| 88 | 50.6 | 40.5 | 51.3 | 41.1 | 51.7 | 41.4 |
| 92 | 49.8 | 39.8 | 50.5 | 40.4 | 50.9 | 40.8 |
| 95 | 49.2 | 39.4 | 49.9 | 40.0 | 50.3 | 40.3 |
| 99 | 45.8 | 36.6 | 46.4 | 37.2 | 46.8 | 37.5 |
| 103 | 42.3 | 33.8 | 42.9 | 34.4 | 43.3 | 34.6 |
| 107 | 38.9 | 31.1 | 39.5 | 31.6 | 39.8 | 31.8 |
| 111 | 35.4 | 28.3 | 36.0 | 28.8 | 36.2 | 29.0 |
| 115 | 32.0 | 25.6 | 32.5 | 26.0 | 32.7 | 26.2 |

**Notes**:

**1**. Capacity index: Total capacity (TC) = 48 MBh; sensible heat capacity (SHC) = 38.4 MBh
**2**. Indoor air temperatures (F° DB/WB) in cooling mode: 68/57, 72/61, 77/64, 80/67, 86/72, 90/75.
**3**. Refrigerant piping length: 16.4 ft
**4**. Level difference : 0 ft

**Table 26. Capacity table for 4MUD4548A10N0* and 4TUK4548A10N0*: heating**

| Outdoor Air Temp. (°F) | Indoor temperature (°F DB) | | | | |
|---|---|---|---|---|---|
| | 61 (16.1°C) | 65 (16.1°C) | 70 (21.1°C) | 72 (22.2°C) | 75 (23.8°C) |
| | TC | TC | TC | TC | TC |
| DB | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h |
| -4.0 | 29.0 | 28.8 | 28.2 | 27.9 | 27.6 |
| -1.0 | 31.6 | 31.3 | 30.7 | 30.4 | 30.1 |
| 2 | 34.1 | 33.8 | 33.1 | 32.8 | 32.4 |
| 6 | 37.5 | 37.1 | 36.4 | 36.0 | 35.6 |
| 10 | 40.7 | 40.3 | 39.5 | 39.1 | 38.7 |
| 13 | 43.6 | 43.1 | 42.3 | 41.9 | 41.5 |
| 17 | 44.9 | 44.4 | 43.6 | 43.1 | 42.7 |
| 19 | 45.5 | 45.1 | 44.2 | 43.7 | 43.3 |
| 23 | 46.8 | 46.3 | 45.4 | 45.0 | 44.5 |
| 26 | 47.8 | 47.3 | 46.4 | 45.9 | 45.5 |
| 30 | 49.1 | 48.6 | 47.7 | 47.2 | 46.7 |
| 35 | 50.7 | 50.2 | 49.2 | 48.7 | 48.2 |
| 39 | 52.0 | 51.4 | 50.4 | 49.9 | 49.4 |
| 44 | 53.6 | 53.1 | 52.0 | 51.5 | 51.0 |
| 47 | 54.6 | 54.1 | 53.0 | 52.5 | 51.9 |
| 51 | 55.8 | 55.2 | 54.1 | 53.6 | 53.1 |
| 54 | 56.7 | 56.1 | 55.0 | 54.5 | 53.9 |
| 57 | 57.5 | 56.9 | 55.8 | 55.3 | 54.7 |
| 60 | 58.4 | 57.8 | 56.7 | 56.1 | 55.6 |
| 65 | 59.9 | 59.3 | 58.1 | 57.6 | 57.0 |
| 70 | 61.4 | 60.8 | 59.6 | 59.0 | 58.4 |
| 75 | 62.8 | 62.2 | 61.0 | 60.4 | 59.8 |

**Notes:**

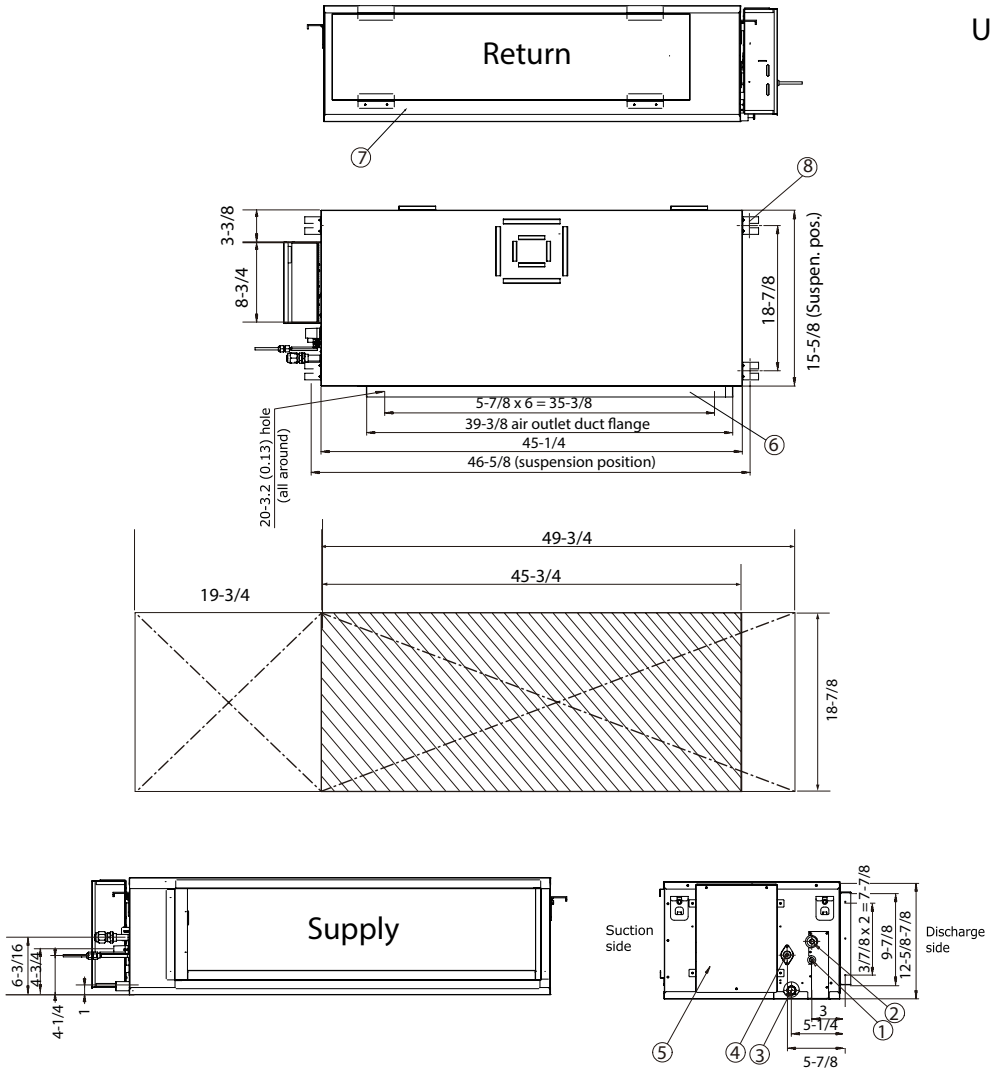
1. Capacity index: Total capacity (TC) = 53 MBh
2. Rated heating capacity is at 47°F DB/ 43°F WB.
3. Refrigerant piping length: 16.4 ft
4. Level difference : 0 ft

# Unit Dimensions

## Indoor Unit Dimensions

**Figure 1. Indoor unit dimensions: 4MUD4518A10N0* and 4MUD4524A10N0***

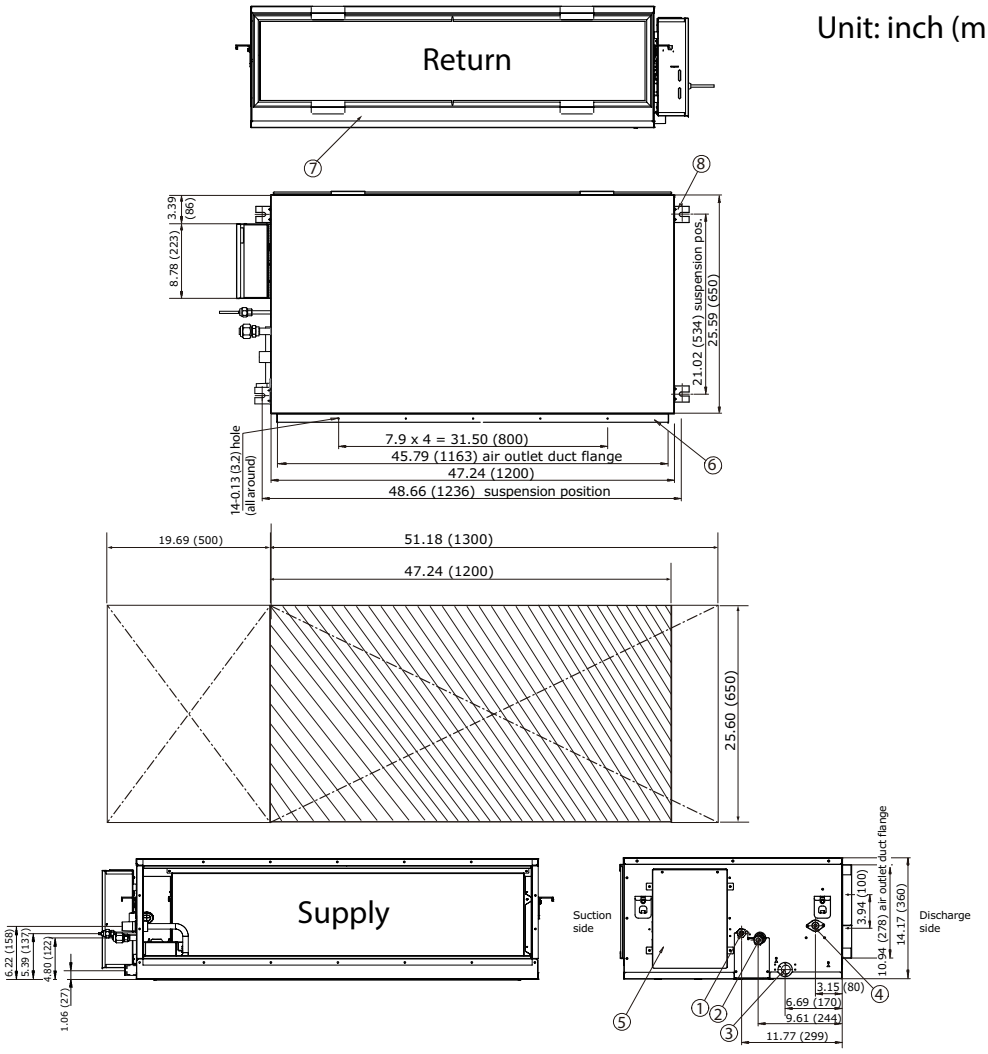
Unit: inch




| No. | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | 1/4 |
| 2 | Gas pipe connection | 18 MBH: 1/2; 24 MBH: 5/8 |
| 3 | Drain pipe connection (without optional drain pump) | OD 1, ID 3/4 |
| 4 | Drain pipe connection (with optional drain pump) | OD 1, ID 3/4 |
| 5 | Power supply/communications connection | — |
| 6 | Air discharge grill flange | — |
| 7 | Air filter | — |
| 8 | Mounting hooks | M8–M10 |

**Figure 2. Indoor unit dimensions: 4MUD4530A10N0*, 4MUD4536A10N0*, 4MUD4542A10N0* and 4MUD4548A10N0***

Unit: inch (mm)




| No. | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | 3/8 |
| 2 | Gas pipe connection | 5/8 |
| 3 | Drain pipe connection (without optional drain pump) | OD 1, ID 3/4 |
| 4 | Drain pipe connection (with optional drain pump) | OD 1, ID 3/4 |
| 5 | Power supply/communications connection | — |
| 6 | Air discharge grill flange | — |
| 7 | Air filter | — |
| 8 | Mounting hooks | M8–M10 |

# Outdoor Unit Dimensions

**Figure 3. Dimensional drawing for 18 MBH capacity units**

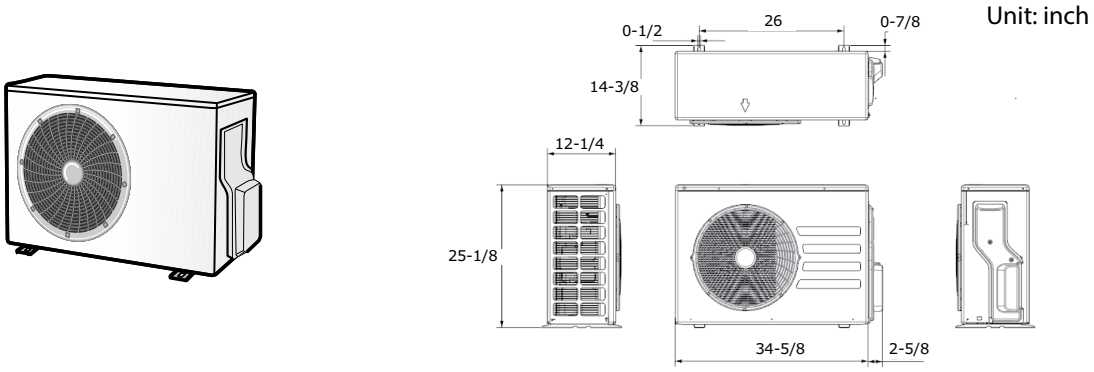



**Figure 4. Dimensional drawing for 24 and 30 MBH capacity units**

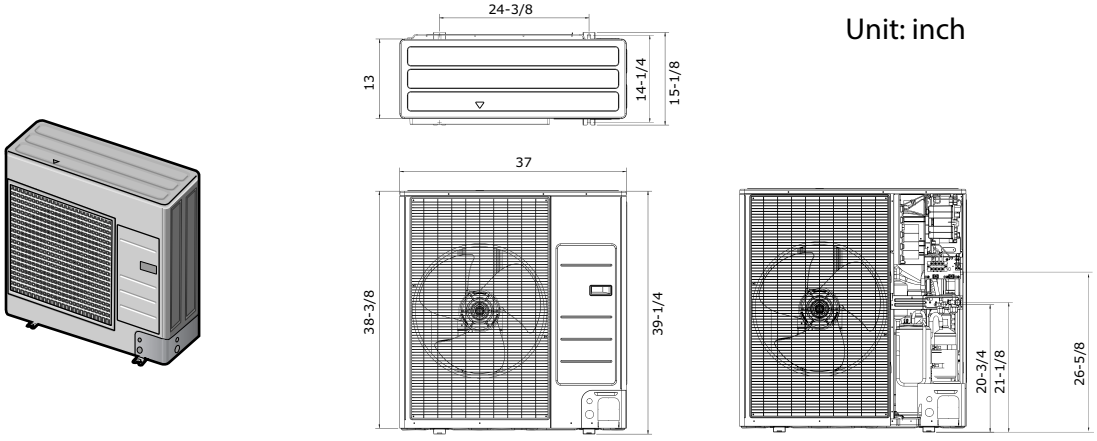
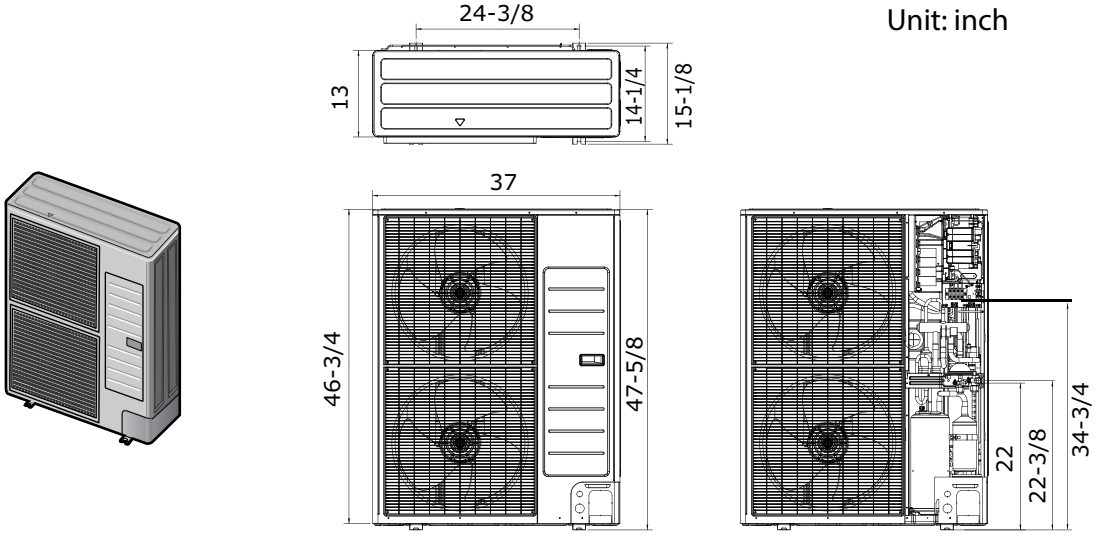



**Figure 5. Dimensional drawing for 36, 42, and 48 MBH capacity units**



# Wiring Diagrams

## Indoor Unit

**Figure 6. Indoor unit electrical wiring: 4MUD4518A10N0* and 4MUD4524A10N0***

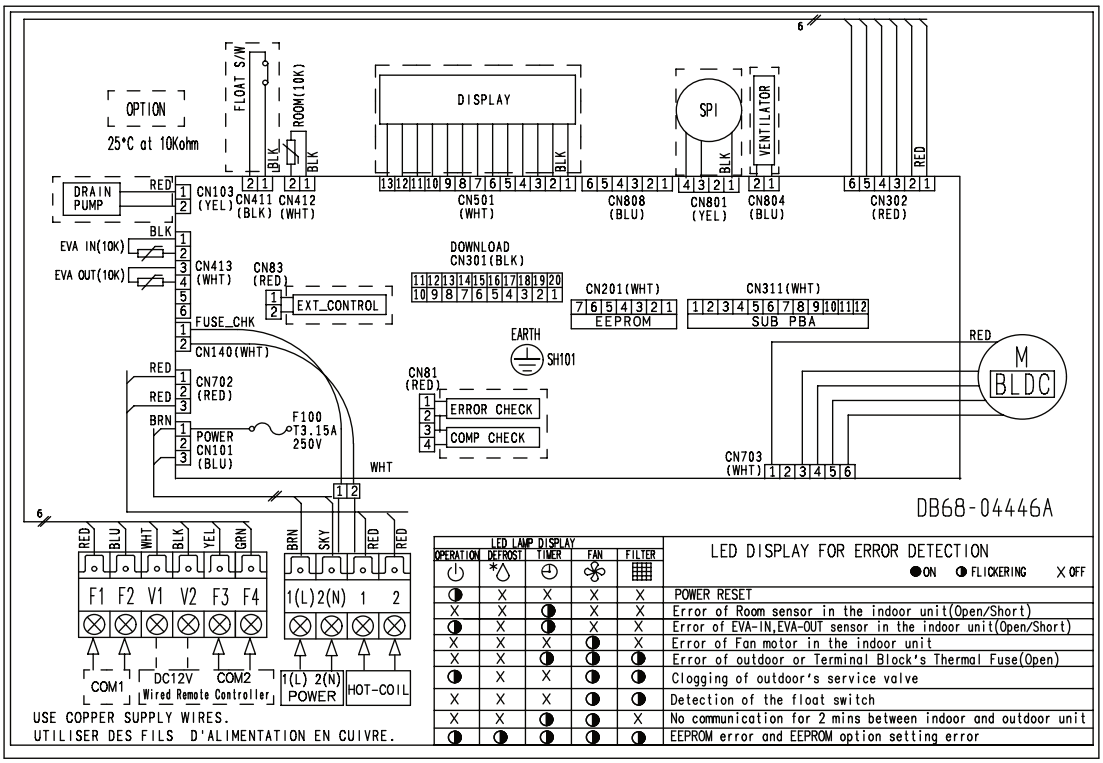
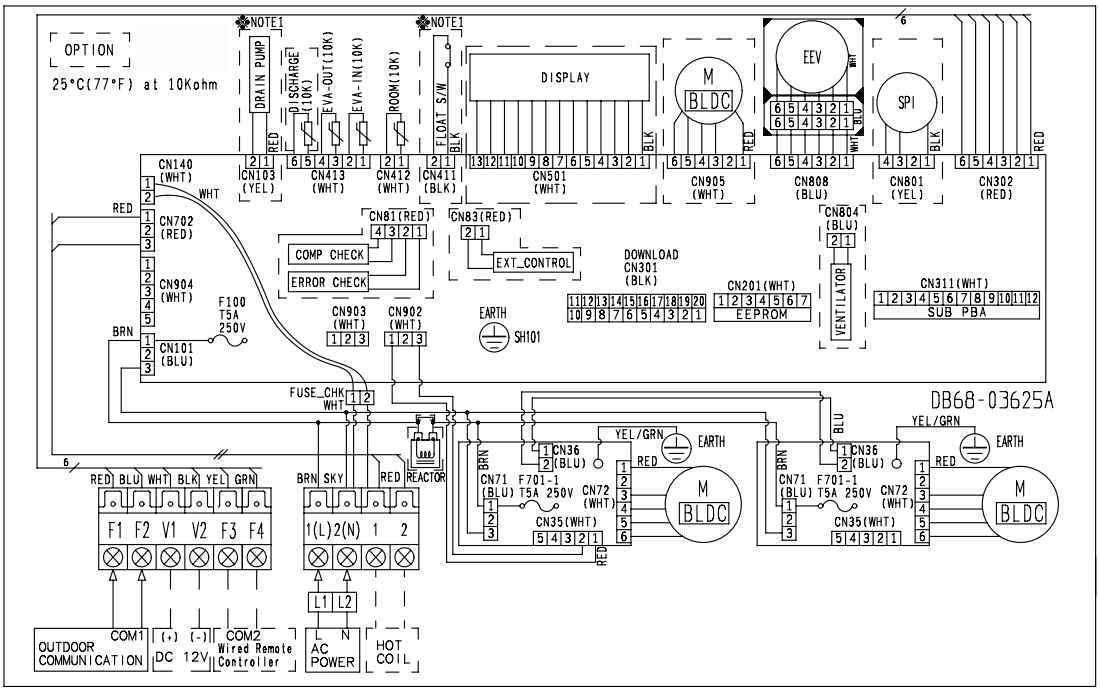



**Figure 7. Indoor unit electrical wiring: 4MUD4530A10N0*, 4MUD4536A10N0*, 4MUD4542A10N0* and 4MUD4548A10N0***



# Outdoor Unit

**Figure 8. Outdoor unit electrical wiring: 4TUK4518A10N0***

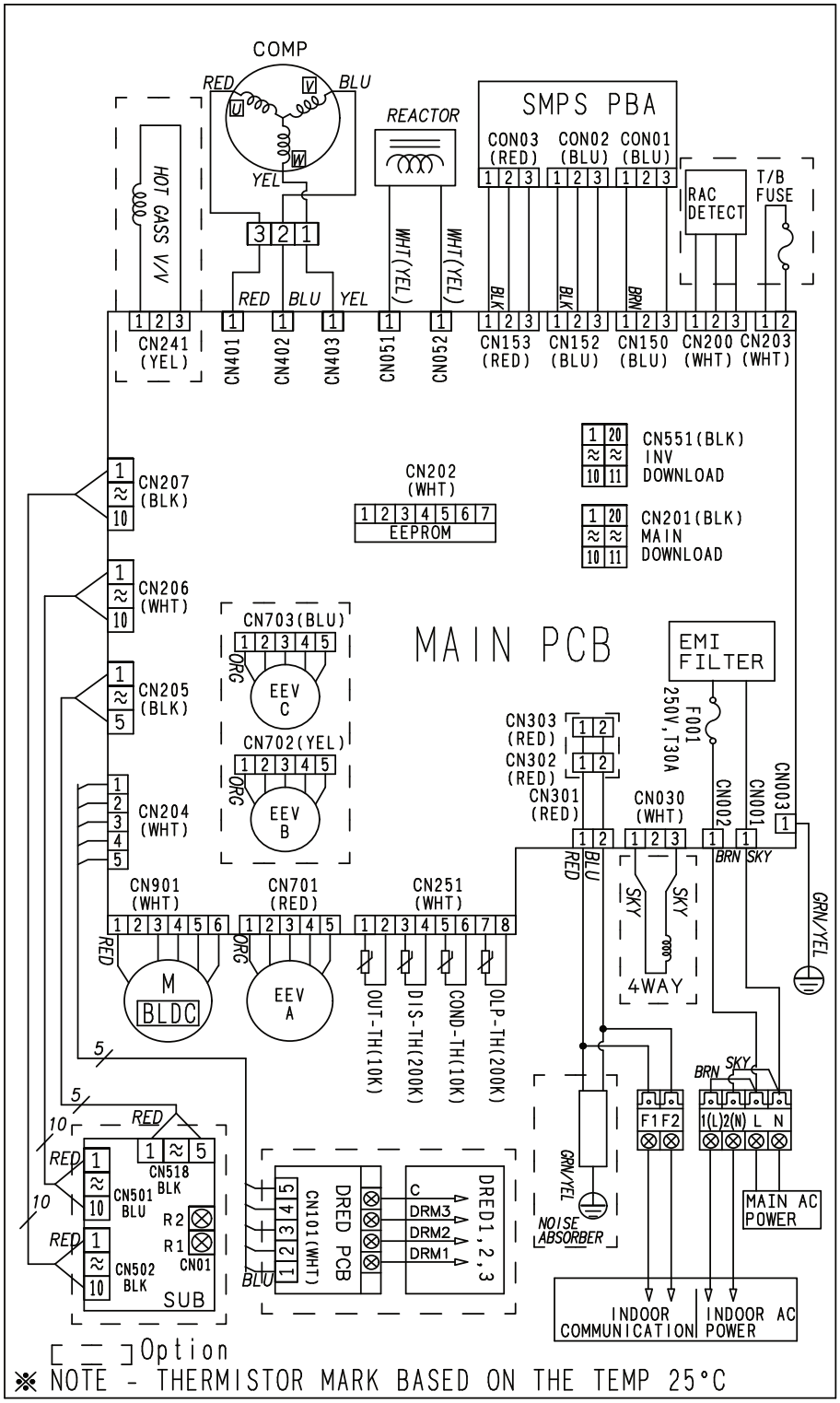
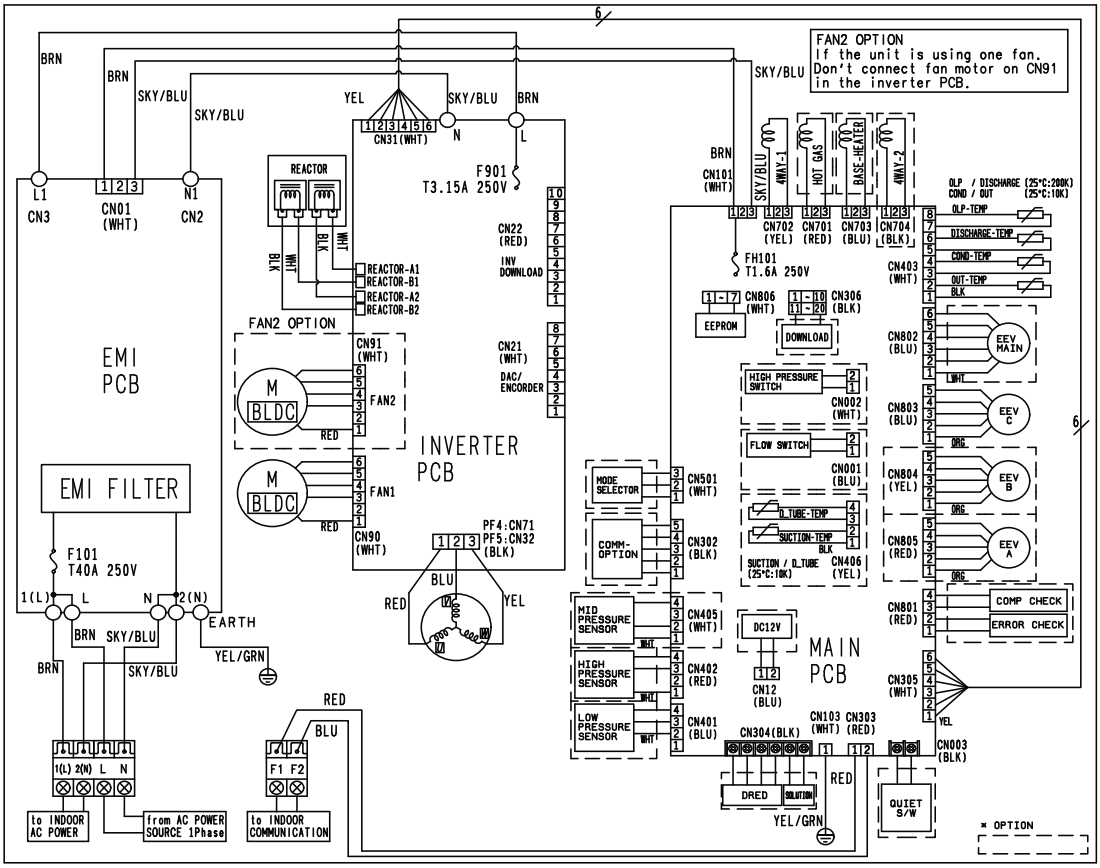
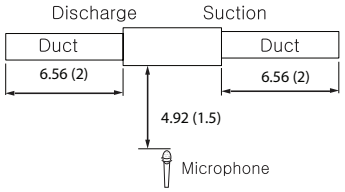


**Figure 9. Outdoor unit electrical wiring: 4TUK4524A10N0*, 4TUK4530A10N0*, 4TUK4536A10N0*, 4TUK4542A10N0*, and 4TUK4548A10N0***



# Sound Levels

## Indoor Unit



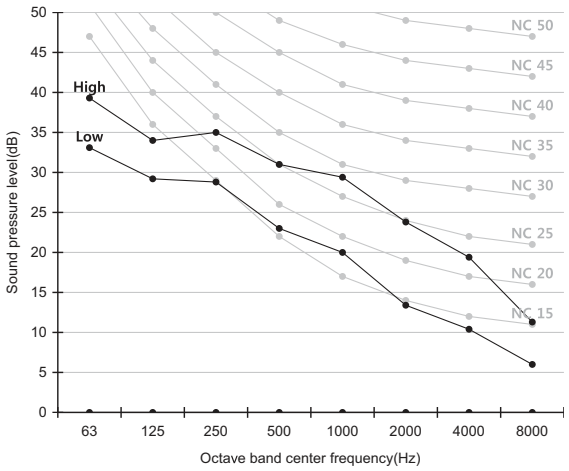

Unit: ft (m)

| Model | | High | Low |
|---|---|---|---|
| Indoor | Outdoor | dBA | |
| 4MUD4518A10N0* | 4TUK4518A10N0* | 34.0 | 26.0 |
| 4MUD4524A10N0* | 4TUK4524A10N0* | 36.0 | 28.0 |
| 4MUD4530A10N0* | 4TUK4530A10N0* | 37.0 | 29.0 |
| 4MUD4536A10N0* | 4TUK4536A10N0* | 37.0 | 30.0 |
| 4MUD4542A10N0* | 4TUK4542A10N0* | 40.0 | 34.0 |
| 4MUD4548A10N0* | 4TUK4548A10N0* | 43.0 | 37.0 |

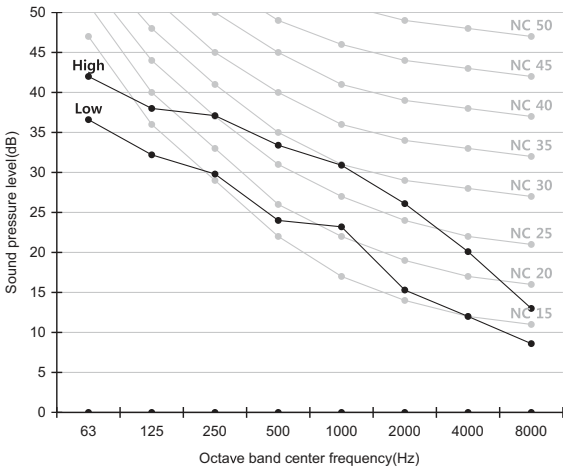
***Notes:***

- *These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.*
- *Operation sound level may differ depending on operation and ambient conditions.*

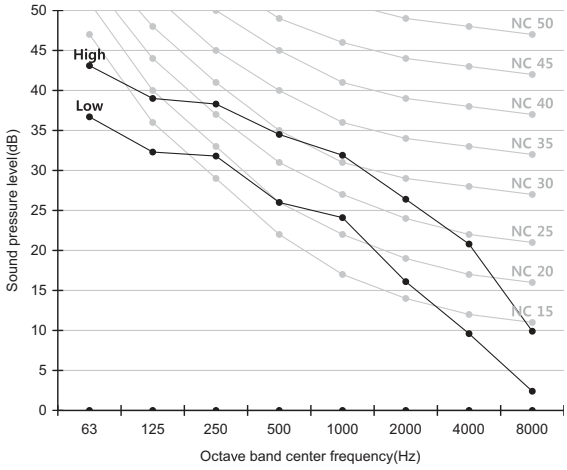
**4MUD4518A10N0* (ODU: 4TUK4518A10N0*)**



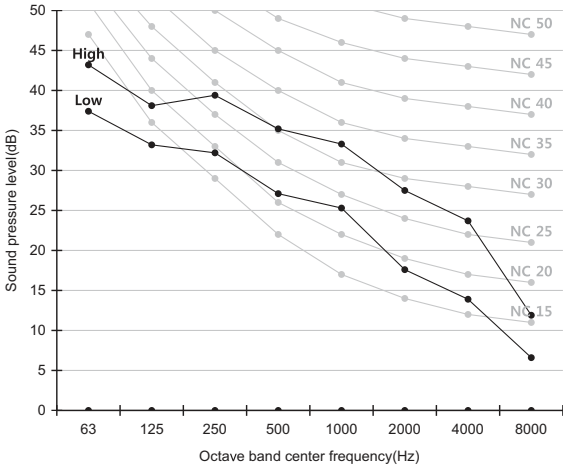

**4MUD4524A10N0* (ODU: 4TUK4524A10N0*)**



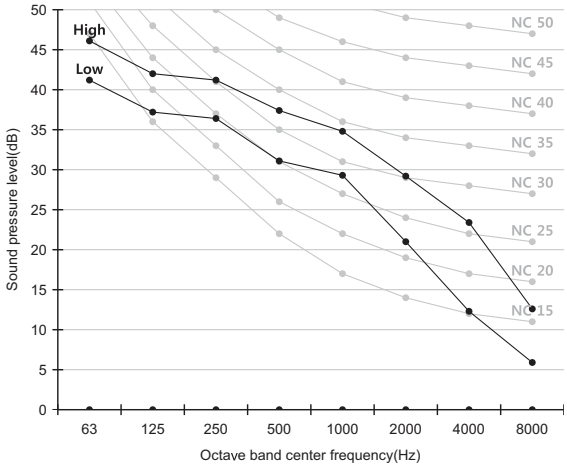
**4MUD4530A10N0* (ODU: 4TUK4530A10N0*)**



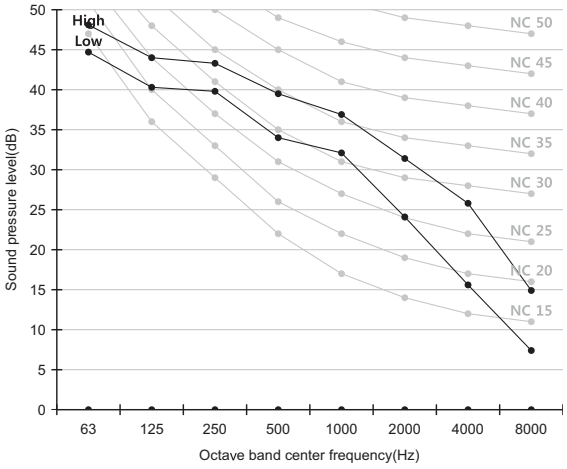

**4MUD4536A10N0* (ODU: 4TUK4536A10N0*)**



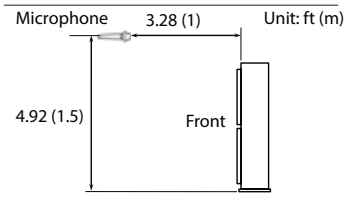

**4MUD4542A10N0* (ODU: 4TUK4542A10N0*)**




**4MUD4548A10N0* (ODU: 4TUK4548A10N0*)**



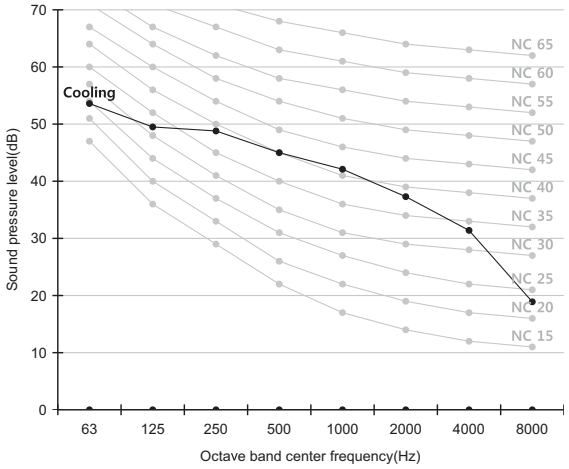
# Outdoor Unit



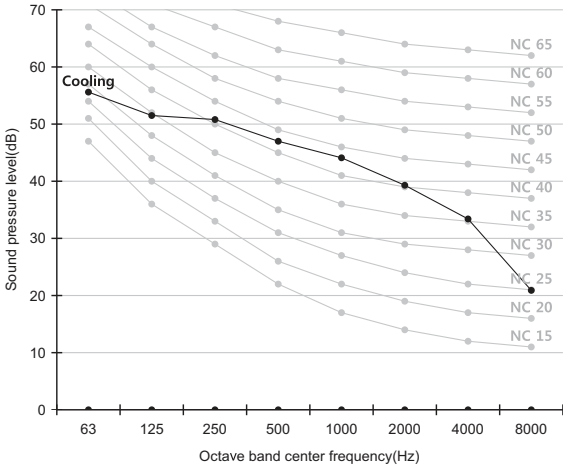

| Model | | Cooling | Heating |
|---|---|---|---|
| Indoor | Outdoor | dBA | |
| 4MUD4518A10N0* | 4TUK4518A10N0* | 48.0 | 48.0 |
| 4MUD4524A10N0* | 4TUK4524A10N0* | 50.0 | 50.0 |
| 4MUD4530A10N0* | 4TUK4530A10N0* | 50.0 | 52.0 |
| 4MUD4536A10N0* | 4TUK4536A10N0* | 49.0 | 51.0 |
| 4MUD4542A10N0* | 4TUK4542A10N0* | 51.0 | 53.0 |
| 4MUD4548A10N0* | 4TUK4548A10N0* | 53.0 | 55.0 |

## NC Curve

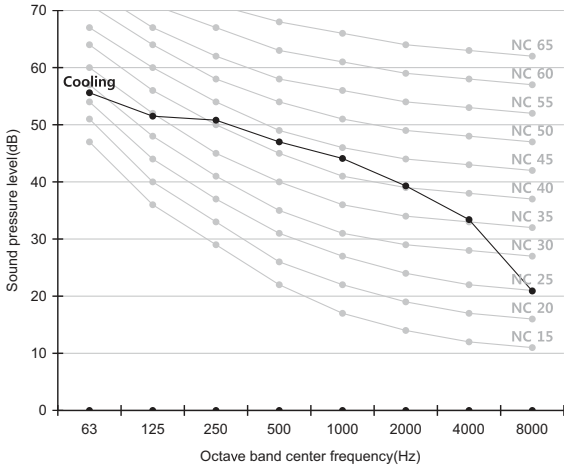
**4TUK4518A10N0* (IDU: 4MUD4518A10N0*)**



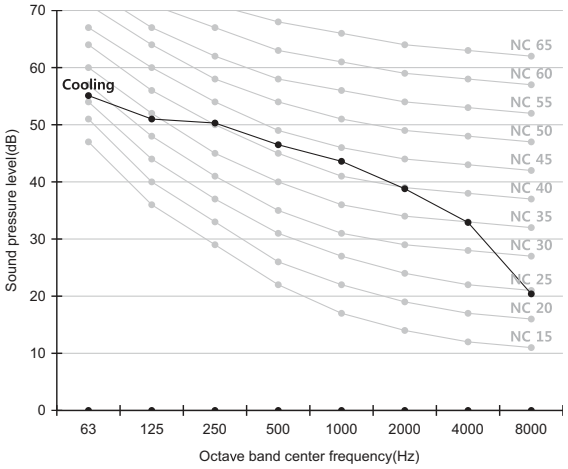

**4TUK4524A10N0* (IDU: 4MUD4524A10N0*)**



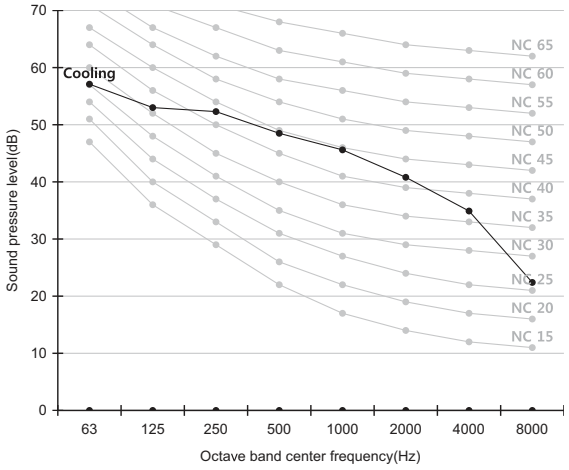

**4TUK4530A10N0* (IDU: 4MUD4530A10N0*)**



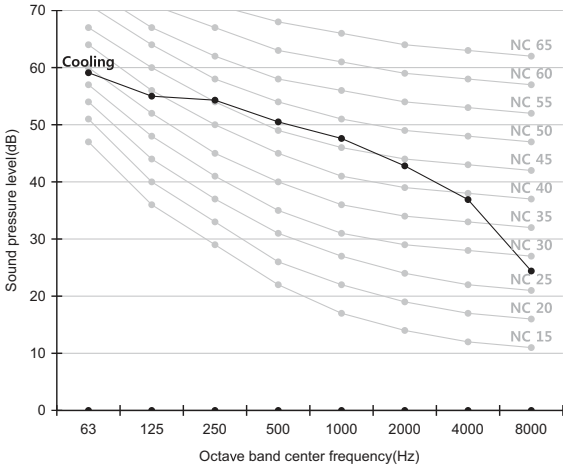

**4TUK4536A10N0* (IDU: 4MUD4536A10N0*)**



**4TUK4542A10N0* (IDU: 4MUD4542A10N0*)**




**4TUK4548A10N0* (IDU: 4MUD4548A10N0*)**

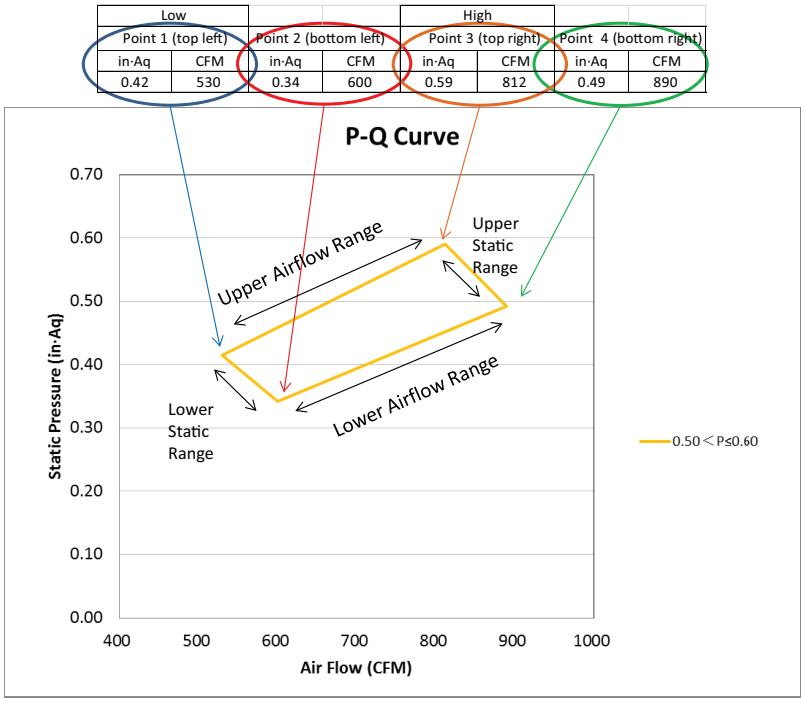


# Airflow Diagrams

## How to Interpret P-Q Tables and Graphs

The following figure shows an example of how to interpret the P-Q curve tables and graphs. Each box represents a static pressure range setpoint and shows its specific fan curve. Point 3 represents the highest available static pressure for each specific setting. When the fan is set to Auto, the fan tracks from right to left within the box.

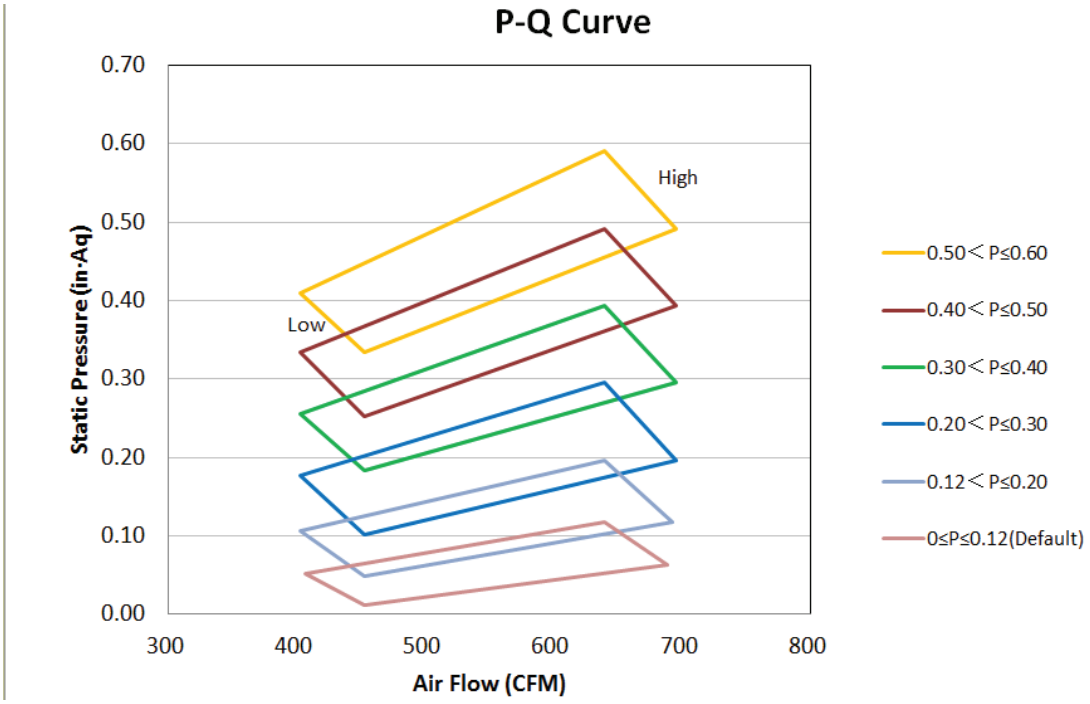
**Figure 10. P-Q Curve Example**



# 4MUD4518A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| External Static pressure(in·Aq) | Point 1 (top, left) | | Point 2 (bottom,left) | | Point 3 (top,right) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0≤P≤0.12(Default) | 0.05 | 406 | 0.01 | 452 | 0.12 | 639 | 0.06 | 689 |
| 0.12<P≤0.20 | 0.11 | 403 | 0.05 | 452 | 0.20 | 639 | 0.12 | 692 |
| 0.20<P≤0.30 | 0.18 | 403 | 0.10 | 452 | 0.30 | 639 | 0.20 | 696 |
| 0.30<P≤0.40 | 0.26 | 403 | 0.18 | 452 | 0.39 | 639 | 0.30 | 696 |
| 0.40<P≤0.50 | 0.33 | 403 | 0.25 | 452 | 0.49 | 639 | 0.39 | 696 |
| 0.50<P≤0.60 | 0.41 | 403 | 0.33 | 452 | 0.59 | 639 | 0.49 | 696 |

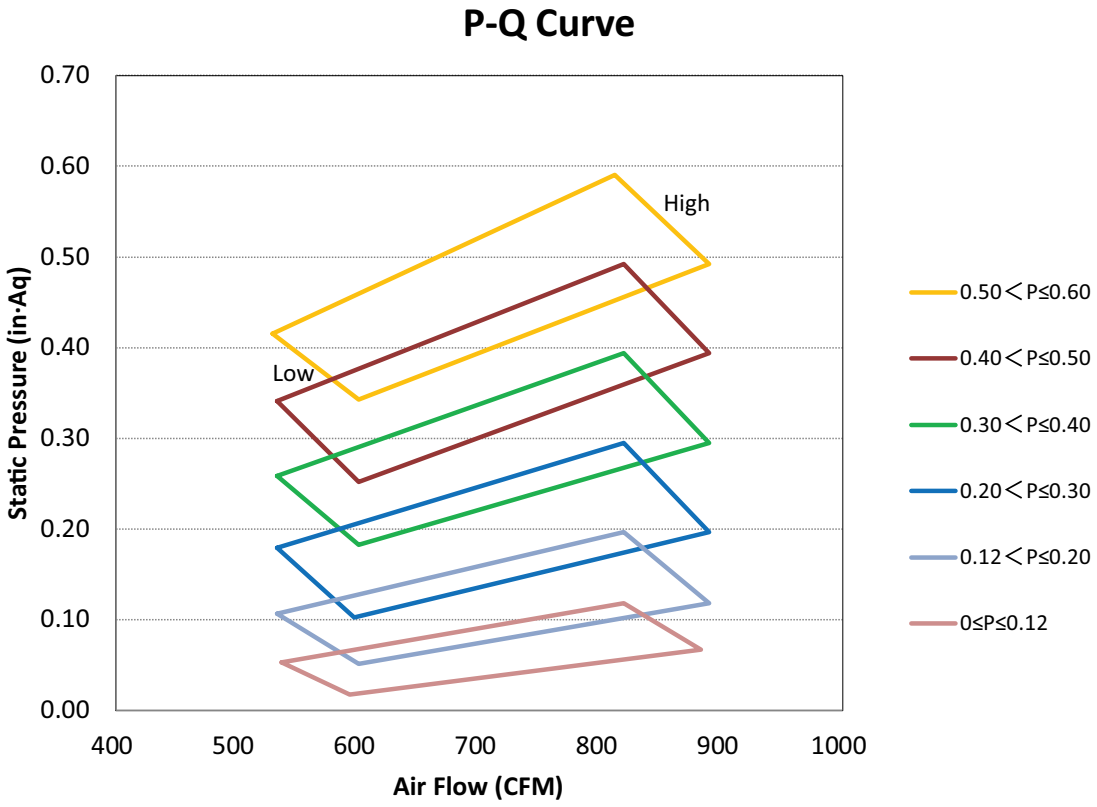
**Figure 11. 4MUD4518A10N0* P-Q Curve Example**



# 4MUD4524A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| in·Aq | Point 1 (top, left) | | Point 2 (bottom, left) | | Point 3 (top,right) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0≤P≤0.12 | 0.05 | 537 | 0.02 | 593 | 0.12 | 819 | 0.07 | 883 |
| 0.12<P≤0.20 | 0.11 | 533 | 0.05 | 600 | 0.20 | 819 | 0.12 | 890 |
| 0.20<P≤0.30 | 0.18 | 533 | 0.10 | 597 | 0.30 | 819 | 0.20 | 890 |
| 0.30<P≤0.40 | 0.26 | 533 | 0.18 | 600 | 0.39 | 819 | 0.30 | 890 |
| 0.40<P≤0.50 | 0.34 | 533 | 0.25 | 600 | 0.49 | 819 | 0.39 | 890 |
| 0.50<P≤0.60 | 0.42 | 530 | 0.34 | 600 | 0.59 | 812 | 0.49 | 890 |

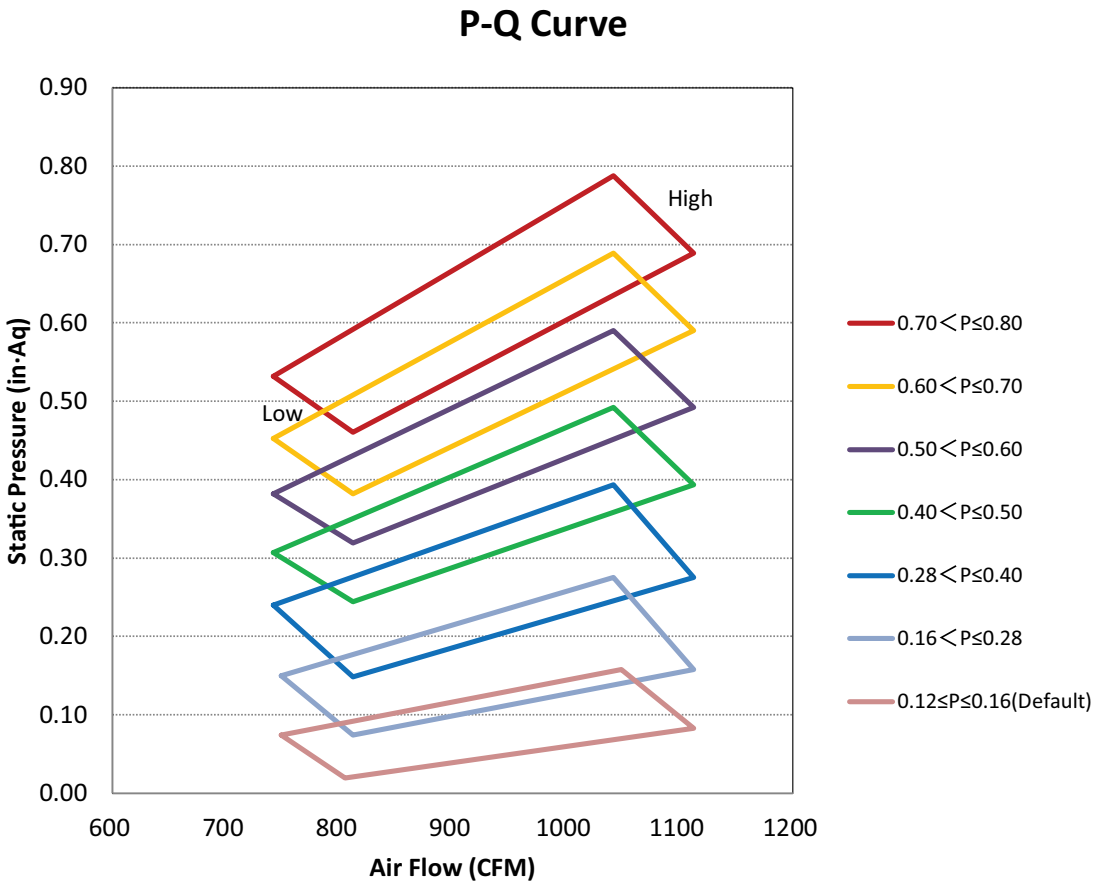
**Figure 12. 4MUD4524A10N0* P-Q Curve Example**



# 4MUD4530A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| External Static pressure(in·Aq) | Point 1 (top, left) | | Point 2 (bottom, left) | | Point 3 (top,right) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0.12≤P≤0.16 (Default) | 0.07 | 749 | 0.02 | 805 | 0.16 | 1049 | 0.08 | 1112 |
| 0.16<P≤0.28 | 0.15 | 749 | 0.07 | 812 | 0.28 | 1042 | 0.16 | 1112 |
| 0.28<P≤0.40 | 0.24 | 742 | 0.15 | 812 | 0.39 | 1042 | 0.28 | 1112 |
| 0.40<P≤0.50 | 0.31 | 742 | 0.24 | 812 | 0.49 | 1042 | 0.39 | 1112 |
| 0.50<P≤0.60 | 0.38 | 742 | 0.32 | 812 | 0.59 | 1042 | 0.49 | 1112 |
| 0.60<P≤0.70 | 0.45 | 742 | 0.38 | 812 | 0.69 | 1042 | 0.59 | 1112 |
| 0.70<P≤0.80 | 0.53 | 742 | 0.46 | 812 | 0.79 | 1042 | 0.69 | 1112 |

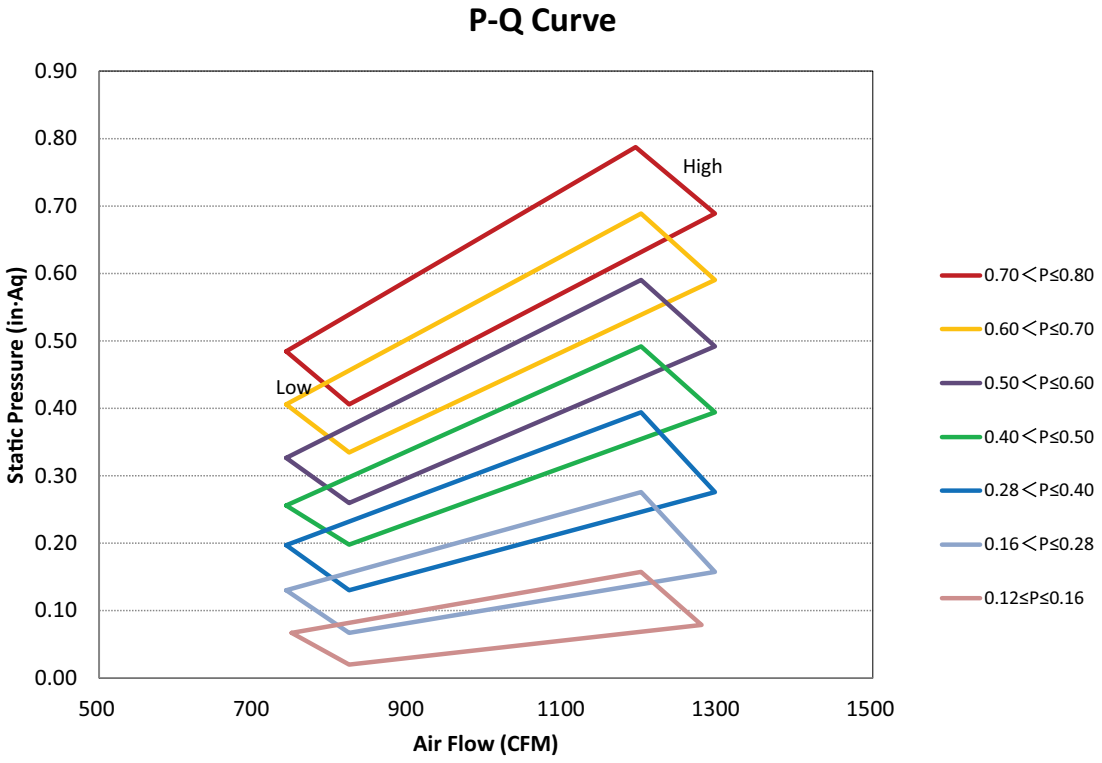
**Figure 13. 4MUD4530A10N0* P-Q Curve Example**



# 4MUD4536A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| External Static pressure(in·Aq) | Point 1 (top, left) | | Point 2 (bottom, right) | | Point 3 (top,left) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0.12≤P≤0.16 | 0.07 | 749 | 0.02 | 823 | 0.16 | 1201 | 0.08 | 1278 |
| 0.16<P≤0.28 | 0.13 | 742 | 0.07 | 823 | 0.28 | 1201 | 0.16 | 1296 |
| 0.28<P≤0.40 | 0.20 | 742 | 0.13 | 823 | 0.39 | 1201 | 0.28 | 1296 |
| 0.40<P≤0.50 | 0.26 | 742 | 0.20 | 823 | 0.49 | 1201 | 0.39 | 1296 |
| 0.50<P≤0.60 | 0.33 | 742 | 0.26 | 823 | 0.59 | 1201 | 0.49 | 1296 |
| 0.60<P≤0.70 | 0.41 | 742 | 0.33 | 823 | 0.69 | 1201 | 0.59 | 1296 |
| 0.70<P≤0.80 | 0.48 | 742 | 0.41 | 823 | 0.79 | 1194 | 0.69 | 1296 |

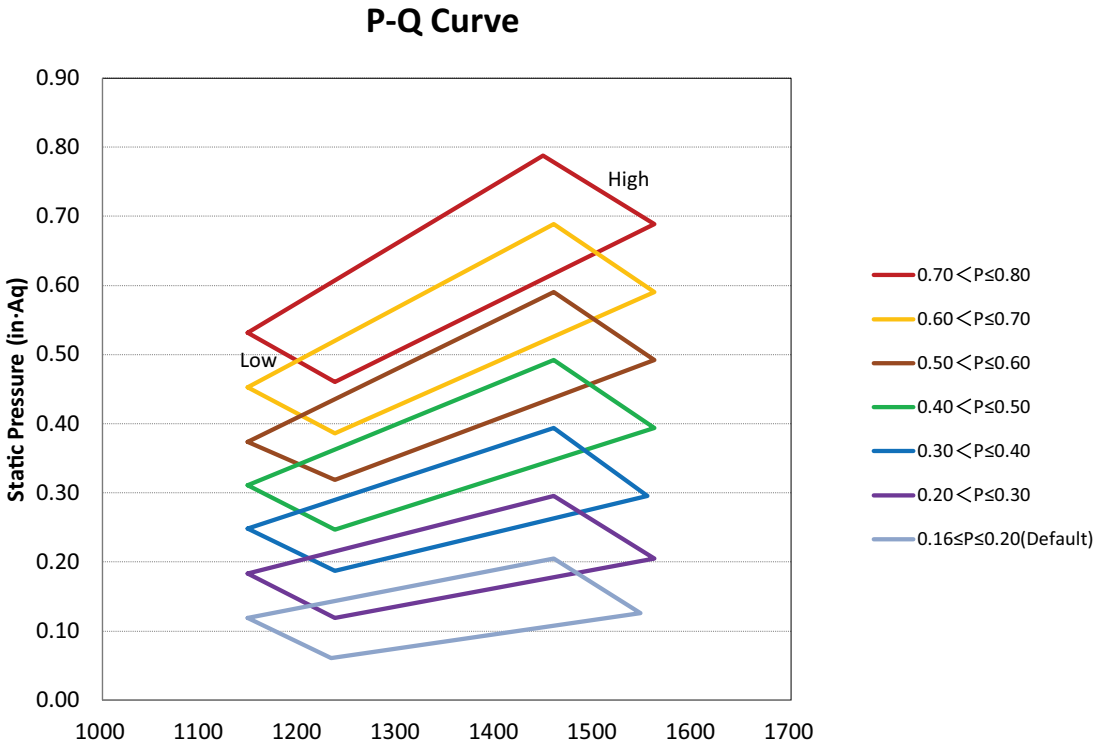
**Figure 14. 4MUD4536A10N0* P-Q Curve Example**



# 4MUD4542A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| External Static pressure(in·Aq) | Point 1 (top, left) | | Point 2 (bottom, left) | | Point 3 (top,right) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0.16≤P≤0.20 | 0.12 | 1148 | 0.06 | 1233 | 0.20 | 1459 | 0.13 | 1547 |
| 0.20<P≤0.30 | 0.18 | 1148 | 0.12 | 1236 | 0.30 | 1459 | 0.20 | 1561 |
| 0.30<P≤0.40 | 0.25 | 1148 | 0.19 | 1236 | 0.39 | 1459 | 0.30 | 1554 |
| 0.40<P≤0.50 | 0.31 | 1148 | 0.25 | 1236 | 0.49 | 1459 | 0.39 | 1561 |
| 0.50<P≤0.60 | 0.37 | 1148 | 0.32 | 1236 | 0.59 | 1459 | 0.49 | 1561 |
| 0.60<P≤0.70 | 0.45 | 1148 | 0.39 | 1236 | 0.69 | 1459 | 0.59 | 1561 |
| 0.70<P≤0.80 | 0.53 | 1148 | 0.46 | 1236 | 0.79 | 1448 | 0.69 | 1561 |

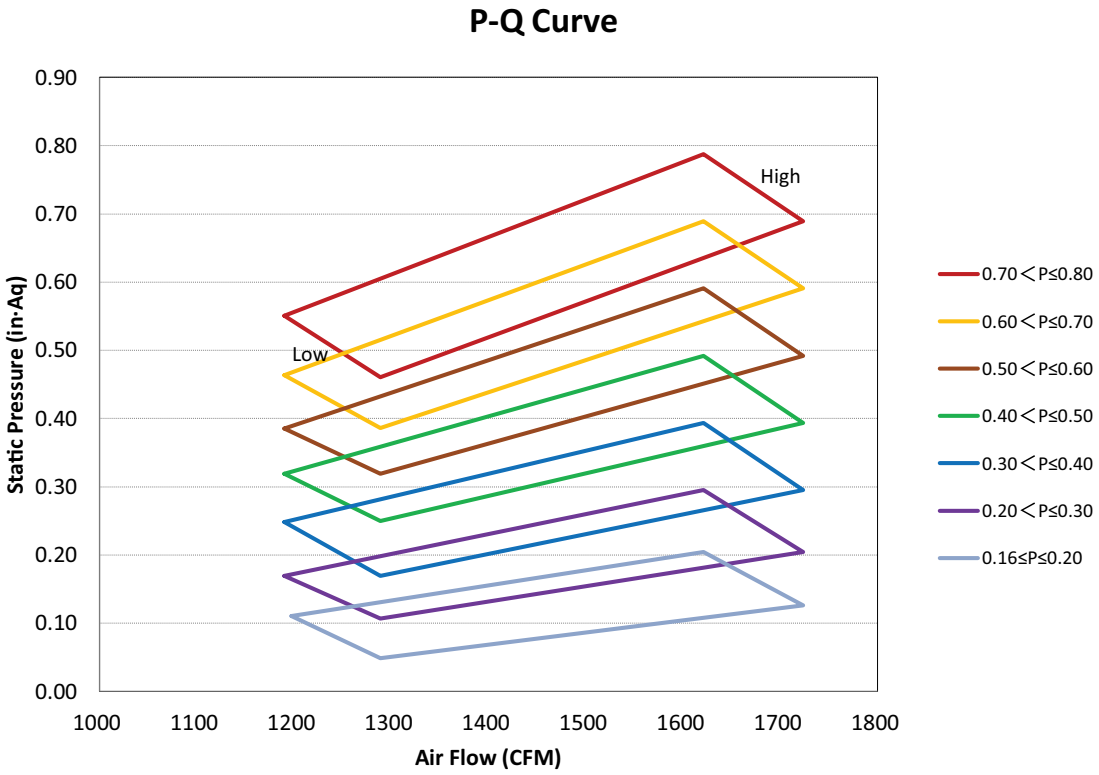
**Figure 15. 4MUD4542A10N0* P-Q Curve Example**



# 4MUD4548A10N0*

| P-Q data | Low | | | | High | | | |
|---|---|---|---|---|---|---|---|---|
| External Static pressure(in·Aq) | Point 1 (top, left) | | Point 2 (bottom, left) | | Point 3 (top,right) | | Point 4 (bottom,right) | |
| | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM | in·Aq | CFM |
| 0.16≤P≤0.20 | 0.11 | 1197 | 0.05 | 1289 | 0.20 | 1621 | 0.13 | 1723 |
| 0.20<P≤0.30 | 0.17 | 1190 | 0.11 | 1289 | 0.30 | 1621 | 0.20 | 1723 |
| 0.30<P≤0.40 | 0.25 | 1190 | 0.17 | 1289 | 0.39 | 1621 | 0.30 | 1723 |
| 0.40<P≤0.50 | 0.32 | 1190 | 0.25 | 1289 | 0.49 | 1621 | 0.39 | 1723 |
| 0.50<P≤0.60 | 0.39 | 1190 | 0.32 | 1289 | 0.59 | 1621 | 0.49 | 1723 |
| 0.60<P≤0.70 | 0.46 | 1190 | 0.39 | 1289 | 0.69 | 1621 | 0.59 | 1723 |
| 0.70<P≤0.80 | 0.55 | 1190 | 0.46 | 1289 | 0.79 | 1621 | 0.69 | 1723 |

**Figure 16. 4MUD4548A10N0* P-Q Curve Example**



# Capacity Correction Tables

## 4MUD4518A10N0* and 4TUK4518A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | |
|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 |
| **65.6** | — | — | — | 0.96 | 0.94 | 0.93 |
| **49.2** | — | — | 0.97 | 0.96 | 0.94 | 0.93 |
| **32.8** | — | 0.99 | 0.97 | 0.96 | 0.94 | 0.93 |
| **16.4** | 1.00 | 0.99 | 0.97 | 0.96 | 0.94 | 0.93 |
| **0.0** | 1.00 | 0.99 | 0.97 | 0.96 | 0.94 | 0.93 |
| **-16.4** | 1.00 | 0.98 | 0.97 | 0.95 | 0.94 | 0.93 |
| **-32.8** | — | 0.97 | 0.96 | 0.95 | 0.93 | 0.92 |
| **-49.2** | — | — | 0.96 | 0.94 | 0.93 | 0.92 |
| **-65.6** | — | — | — | 0.94 | 0.92 | 0.91 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | |
|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 |
| **65.6** | — | — | — | 0.94 | 0.92 | 0.90 |
| **49.2** | — | — | 0.96 | 0.94 | 0.92 | 0.90 |
| **32.8** | — | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 |
| **16.4** | 1.00 | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 |
| **0.0** | 1.00 | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 |
| **-16.4** | 1.00 | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 |
| **-32.8** | — | 0.98 | 0.96 | 0.94 | 0.92 | 0.90 |
| **-49.2** | — | — | 0.96 | 0.94 | 0.92 | 0.90 |
| **-65.6** | — | — | — | 0.94 | 0.92 | 0.90 |

# 4MUD4524A10N0* and 4TUK4524A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 |
| **98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-16.4** | 1.00 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.90 | 0.88 |
| **-32.8** | — | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.92 | 0.91 | 0.89 | 0.87 |
| **-49.2** | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.90 | 0.88 | 0.85 |
| **-65.6** | — | — | — | 0.95 | 0.94 | 0.93 | 0.91 | 0.89 | 0.87 | 0.83 |
| **-82.0** | — | — | — | — | 0.94 | 0.92 | 0.91 | 0.89 | 0.86 | 0.82 |
| **-98.4** | — | — | — | — | — | 0.92 | 0.90 | 0.88 | 0.85 | 0.80 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 |
| **98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |

# 4MUD4530A10N0* and 4TUK4530A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 |
| **98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-16.4** | 1.00 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.90 | 0.88 |
| **-32.8** | — | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.92 | 0.91 | 0.89 | 0.87 |
| **-49.2** | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.90 | 0.88 | 0.85 |
| **-65.6** | — | — | — | 0.95 | 0.94 | 0.93 | 0.91 | 0.89 | 0.87 | 0.83 |
| **-82.0** | — | — | — | — | 0.94 | 0.92 | 0.91 | 0.89 | 0.86 | 0.82 |
| **-98.4** | — | — | — | — | — | 0.92 | 0.90 | 0.88 | 0.85 | 0.80 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 |
| **98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-32.8** | — | 0.99 | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-49.2** | — | — | 0.98 | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-65.6** | — | — | — | 0.97 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-82.0** | — | — | — | — | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |
| **-98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 |

# 4MUD4536A10N0* and 4TUK4536A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 |
| **-32.8** | — | 0.98 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.87 | 0.85 |
| **-49.2** | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 |
| **-65.6** | — | — | — | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.83 |
| **-82.0** | — | — | — | — | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.88 | 0.87 | 0.85 | 0.81 |
| **-98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 | 0.80 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.88 | 0.88 |
| **-32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |

# 4MUD4542A10N0* and 4TUK4542A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 |
| **-32.8** | — | 0.98 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.87 | 0.85 |
| **-49.2** | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 |
| **-65.6** | — | — | — | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.83 |
| **-82.0** | — | — | — | — | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.88 | 0.87 | 0.85 | 0.81 |
| **-98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 | 0.80 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.88 | 0.88 |
| **-32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |

# 4MUD4548A10N0* and 4TUK4548A10N0*

### Cooling

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 |
| **-32.8** | — | 0.98 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.87 | 0.85 |
| **-49.2** | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 |
| **-65.6** | — | — | — | 0.96 | 0.95 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.83 |
| **-82.0** | — | — | — | — | 0.95 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.88 | 0.87 | 0.85 | 0.81 |
| **-98.4** | — | — | — | — | — | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.86 | 0.84 | 0.80 |

### Heating

| Level Difference (ft) | Pipe length (ft) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16.4 | 32.8 | 49.2 | 65.6 | 82 | 98.4 | 114.8 | 131.2 | 147.6 | 164.0 | 180.4 | 196.9 | 213.3 | 229.7 | 246.1 |
| **98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **0.0** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-16.4** | 1.00 | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.88 | 0.88 |
| **-32.8** | — | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-49.2** | — | — | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-65.6** | — | — | — | 0.97 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-82.0** | — | — | — | — | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |
| **-98.4** | — | — | — | — | — | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.90 | 0.89 | 0.88 |

## Notes

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