



4401 Springfield St.
Dayton, OH 45431
OH LIC # 24297
937.254.3235
800.254.9455
msdinc.net

SUBMITTAL COVER SHEET

PROJECT

Crossroads Church

ENGINEER

KLH Engineers

Construction Manager

Model Group

SPECIFICATIONS NO.

238129

ITEM

Ductless Splits and Fan Coil Systems

Submittal # 044.1

- Approved
 Disapproved

Date: 3/28/2024

Submitted by: Mark Denlinger

INFORMATION ONLY



Kohrs Lonnemann Heil Engineers, Inc.

Fort Thomas Office
1538 Alexandria Pike, Suite 11
Ft. Thomas, KY 41075
859-442-8050 telephone
859-442-8058 fax

Product Data

Project Name:	Crossroads Church - Dayton Mall	Submittal Code:	238129.00-PD-01	REV:	00
Document Set:	Bid/Construction				
KLH Project #:	25411.00-Bid	Received Date:	12/21/2023		
Section Name:	Ductless Split System Air Conditioning Units				
Section Number:	238129.00				
Submitted By:	MSD				
Authored By:	Trane				
Client Name:	Mechanical Services & Design				

SUBMITTAL REVIEW

No Exceptions

By: Daniel L. Prince **Date:** 12/22/2023

ENGINEER'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. COMMENTS DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR REMAINS RESPONSIBLE FOR ACCURACY OF QUANTITIES, DIMENSIONS, DETAILS AND COORDINATION WITH OTHER TRADES.

General

1.1 No exceptions noted.

End of Submittal Review

Note: Review is for general conformance only. Submittal reviews featuring the "No Exceptions" designation shall not be interpreted as permission to deviate from the contract. Modifications to the contract are based on express written request and approval and submittal reviews do not satisfy this requirement.

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Submittal

TRANE

TECHNOLOGIES

Project Name:

Crossroads Dayton Campus (Revision 1)

Contractor: Mechanical Services & Design
Engineer: KLH
Architect:
Rep/Distributor: Trane - Dave Erwin

Project Detail:

Customer: Crossroads
Address: 2700 Miamisburg-Centerville Roads
City: Dayton
State: OH
Zip: 45459

Submittal Date:

12/6/2023

Submitted By:

Name: Christian Melson
Company: Trane
Email: Christian.Melson@Trane.com
Phone: (513) 415-1785
Submittal Stage: Design Only

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Equipment Bill Of Material

Quantities

Qty	Model	Description	Tag
15	TAR-40MAAU	MA remote controller	CTR1-FC-1,CTR1-FC-2,CTR1-FC-3,CTR1-FC-4,CTR1-FC-5,CTR1-FC-6,CTR1-FC-7,CTR1-FC-8,CTR1-FC-9,CTR1-DS-3,CTR1-DS-4,CTR1-DS-1,CTR1-DS-2A,CTR1-DS-2B,CTR1-DS-5
15	PAC-UKPRC001-CN-1	Thermostat	CTR2-FC-1,CTR2-FC-2,CTR2-FC-3,CTR2-FC-4,CTR2-FC-5,CTR2-FC-6,CTR2-FC-7,CTR2-FC-8,CTR2-FC-9,CTR2-DS-3,CTR2-DS-4,CTR2-DS-1,CTR2-DS-2A,CTR2-DS-2B,CTR2-DS-5
3	TRUZH0241HA10NA	R410A P Series Outdoor Unit	HP-1,HP-7,HP-8
2	NTXSKS24A112AA	R410A MandS Series Outdoor Unit	HP-2,HP-3
1	NTXMSH48A182BA	R410A MXZSM Series Outdoor Unit	HP-4
1	NTXSKH24A112AA	R410A MandS Series Outdoor Unit	HP-5
1	TRUZH0301KA00NA	R410A P Series Outdoor Unit	HP-6
3	TRUZA0121KA70NA	R410A P Series Outdoor Unit	HP-9,HP-10,HP-11
2	TRUYA0121KA70NA	R410A P Series Outdoor Unit	CU-1,CU-5
2	TRUYA0361KA70NA	R410A P Series Outdoor Unit	CU-2A,CU-2B
1	TPEADA0241AA80A	Ceiling-Concealed (Ducted) Indoor Unit	FC-1
3	TPEADA0241AA70A	Ceiling-Concealed (Ducted) Indoor Unit	FC-2,FC-3,FC-5
1	TPEFYP048MA144A	Ceiling-Concealed (Ducted) Indoor Unit	FC-4
1	TPEADA0301AA80A	Ceiling-Concealed (Ducted) Indoor Unit	FC-6
2	TPLA0A0241EA80A	Ceiling-Cassette (Four-Way) Indoor Unit	FC-7,FC-8
1	TPEADA0121AA70A	Ceiling-Concealed (Ducted) Indoor Unit	FC-9
4	TPLA0A0121EA80A	Ceiling-Cassette (Four-Way) Indoor Unit	DS-3,DS-4,DS-1,DS-5
2	TPLA0A0361EA80A	Ceiling-Cassette (Four-Way) Indoor Unit	DS-2A,DS-2B
11	QSMS1801M	Stand - 18" High	HP-1,HP-2,HP-3,HP-5,HP-7,HP-8,HP-9,HP-10,HP-11,CU-1,CU-5
5	FBM2-3-A	Filter Box	FC-1,FC-2,FC-3,FC-5,FC-6
4	QSMS1802M	Stand - 18" High	HP-4,HP-6,CU-2A,CU-2B
1	FBM2-4-A	Filter Box	FC-4
8	TLP-41EAEU	TLP-41EAEU	FC-7,FC-8,DS-3,DS-4,DS-1,DS-2A,DS-2B,DS-5
2	WB-PA4	Wind Baffle	
4	WB-PA3	Wind Baffle	

Refrigerant Piping Materials

Pipe Size (inch)	Total Length (feet)	Number of Bends
5/8	250	0
3/8	250	0
1/2	125	0
1/4	125	0

Design View Piping Diagrams

Indoor Units: 1 / 1 to 2
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors

Temperature: 0.95 0.93
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.91 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 7.72 lb



Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2

Indoor Units: 1 / 1 to 1
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 100.0 feet

Correction Factors

Temperature:	0.98	0.58
Piping Length:	1.00	1.00
Defrosting:	-	1.00
User Derate:	1.00	1.00
Total Derate:	0.95	0.56
Additional Refrigerant:	0.00	lb
Total Refrigerant Amount:	4.87	lb

Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



⚠ Outdoor Unit Heating Range Error: This unit is only rated to 14.0F, but derates are based upon minimum values. May need auxiliary heat.

Indoor Units: 1 / 1 to 1
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 100.0 feet

Correction Factors
 Temperature: 0.98 0.58
 Piping Length: 1.00 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.95 0.56
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.87 lb

Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

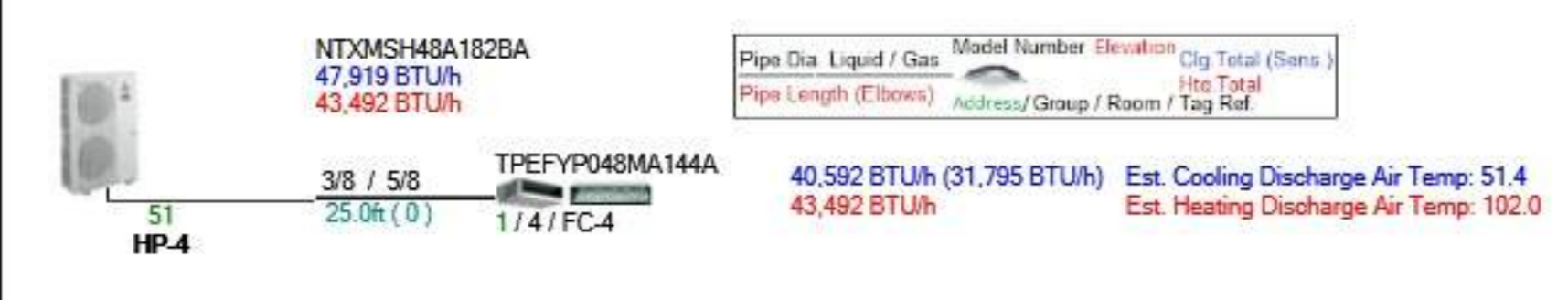
Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



⚠ Outdoor Unit Heating Range Error: This unit is only rated to 14.0F, but derates are based upon minimum values. May need auxiliary heat.

Units: 1 / 1 to 12
 Capacity: 48 / 24 to 62 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 984.0 feet
 Furthest Actual: 25.0 / 492.0 feet
 Furthest Equiv.: 25.0 / 492.0 feet
 After 1st Branch Actual: 0.0 / 98.0 feet
 After 1st Branch Equiv.: 0.0 / 98.0 feet
Correction Factors
 Outdoor Unit Capacity: 1.00 1.00
 Temperature: 1.01 0.86 ⚠
 Piping Length: 1.00 1.00
 Defrosting: - 0.95
 User Derate: 1.00 1.00
 Total Derate: 1.00 0.81
 Additional Refrigerant: 6.48 lb
 Total Refrigerant Amount: 17.07 lb

Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0
Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



Indoor Units: 1 / 1 to 1
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors

Temperature:	0.98	0.95
Piping Length:	0.99	1.00
Defrosting:	-	1.00
User Derate:	1.00	1.00
Total Derate:	0.94	0.92
Additional Refrigerant:	0.00	lb
Total Refrigerant Amount:	7.72	lb

Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



Indoor Units: 1 / 1 to 1
 Capacity: 30 / 15 to 30 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 245.0 feet

Correction Factors

Temperature:	0.95	0.93
Piping Length:	0.99	1.00
Defrosting:	-	1.00
User Derate:	1.00	1.00
Total Derate:	0.91	0.90
Additional Refrigerant:	0.00	lb
Total Refrigerant Amount:	11.46	lb

Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



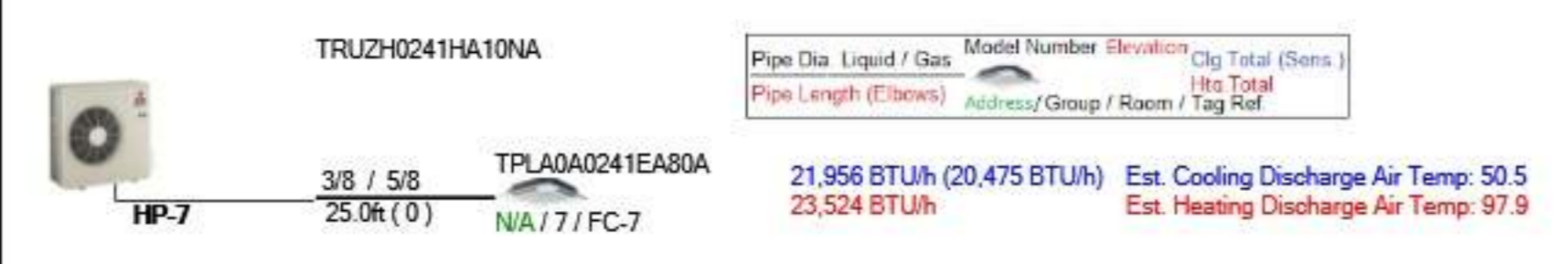
Indoor Units: 1 / 1 to 2
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors
 Temperature: 0.95 0.93
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.91 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 7.72 lb

Conditions (°F)
 Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



Indoor Units: 1 / 1 to 2
 Capacity: 24 / 12 to 24 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors
 Temperature: 0.95 0.93
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.91 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 7.72 lb

Conditions (°F)
 Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



Indoor Units: 1 / 1 to 1
 Capacity: 12 / 6 to 12 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 100.0 feet

Correction Factors
 Temperature: 0.95 0.62
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.90 0.60
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.44 lb

Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



⚠ Outdoor Unit Heating Range Error: This unit is only rated to 14.0F, but derates are based upon minimum values. May need auxiliary heat.

Indoor Units: 1 / 1 to 1
 Capacity: 12 / 6 to 12 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 100.0 feet

Correction Factors
 Temperature: 0.95 0.62
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.90 0.60
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.44 lb

Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



⚠ Outdoor Unit Heating Range Error: This unit is only rated to 14.0F, but derates are based upon minimum values. May need auxiliary heat.

Indoor Units: 1 / 1 to 1
 Capacity: 12 / 6 to 12 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 100.0 feet

Correction Factors
 Temperature: 0.95 0.62
 Piping Length: 0.99 1.00
 Defrosting: - 1.00
 User Derate: 1.00 1.00

Total Derate: 0.90 0.60
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.44 lb

Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2



⚠ Outdoor Unit Heating Range Error: This unit is only rated to 14.0F, but derates are based upon minimum values. May need auxiliary heat.

Indoor Units: 1 / 1 to 1
 Capacity: 12 / 6 to 12 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors
 Temperature: 0.95
 Piping Length: 0.99
 User Derate: 1.00

Total Derate: 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.44 lb



CU-1

1/4 / 1/2
25.0ft (0)

TPLA0A0121EA80A
N/A / 12 / DS-1

TRUYA0121KA70NA

Pipe Dia. Liquid / Gas	Model Number	Elevation	Chg. Total (Sens.)
Pipe Length (Elbows)	Address / Group / Room / Tag Ref		

10,834 BTU/h (10,511 BTU/h) Est. Cooling Discharge Air Temp: 55.8

Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2

Indoor Units: 1 / 1 to 2
 Capacity: 36 / 18 to 36 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 225.0 feet
Correction Factors
 Temperature: 0.95
 Piping Length: 0.99
 User Derate: 1.00
 Total Derate: 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 10.37 lb



Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0
Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2

Indoor Units: 1 / 1 to 2
 Capacity: 36 / 18 to 36 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 225.0 feet
Correction Factors
 Temperature: 0.95
 Piping Length: 0.99
 User Derate: 1.00
 Total Derate: 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 10.37 lb



Conditions (°F)
Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0
Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2

Indoor Units: 1 / 1 to 1
 Capacity: 12 / 6 to 12 (100.0%)
 * Connectable capacity is not actual capacity.
 Total Pipe Length: 25.0 / 165.0 feet

Correction Factors
 Temperature: 0.95
 Piping Length: 0.99
 User Derate: 1.00

Total Derate: 0.90
 Additional Refrigerant: 0.00 lb
 Total Refrigerant Amount: 4.44 lb



Conditions (°F)

Cooling
 Indoor DB 75.0 Humidity 50.0% Indoor WB 62.4
 Outdoor DB 91.0

Heating
 Indoor DB 70.0
 Outdoor DB 1.0 Humidity 74.1% Outdoor WB 0.2

TPLA0A0121EA80A & TRUYA0121KA70NA
12,000 BTU/H 3' X 3' CEILING CASSETTE
12,000 BTU/H COOLING ONLY OUTDOOR



Job Name: _____

System Reference: **CU-1, CU-5**

Date: **12/06/2023**



Indoor Unit.....TPLA0A0121EA80A

Outdoor Unit.....TRUYA0121KA70NA

INDOOR UNIT FEATURES

- Space-efficient ductless installation
- Equipped with 3D i-see Sensor® for enhanced comfort and energy efficiency
- Airflow settings for high and low ceiling applications
- Individual vane settings for direct/indirect airflow control or variable airflow patterns
- Knockouts for outside-air intake and branch-duct run
- Filter indicator signal
- Easy-to-clean, washable filter (optional high-efficiency filter available - requires multi-function casement)
- Built-in condensate lift mechanism
- Ideal for retail shops, classrooms, office spaces, conference centers, building lobbies, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to -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

SPECIFICATIONS: TPLA0A0121EA80A & TRUYA0121KA70NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	12,000
	Rated Capacity	BTU/H	12,000
	Minimum Capacity	BTU/H	5,800
	Maximum Power Input	W	730
	Rated Power Input	W	730
	Moisture Removal	Pints/h	1.2
	Sensible Heat Factor		0.89
	Power Factor [208V / 230V]	%	93.5 / 93.5
Efficiency	SEER2		26.9
	EER2 ¹		16.4
	HSPF2 [IV]		—
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	1.0
	Fan Motor Full Load Amperage	A	0.28
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	370–460–490–530
	Airflow Rate at Cooling, Wet	CFM	340–420–450–490
	Sound Pressure Level [Cooling]	dB[A]	26–27–29–30
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	33-7/16 [850]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 6.4Y 8.9/0.4
	Unit Dimensions	W x D x H: In. [mm]	33-1/16 x 33-1/16 x 10-3/16 [840 x 840 x 258]
	Package Dimensions	W x D x H: In. [mm]	34-19/64 x 35-35/64 x 15 [871 x 903 x 381]
	Unit Weight	Lbs. [kg]	46 [21]
	Package Weight	Lbs. [kg]	77 [34.8]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling ¹	dB(A)	44
	Compressor Type		INVERTER-driven twin rotary
	Compressor Model		SNB092FQCMC
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 12
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
Unit Dimensions	W x D x H: In. [mm]	31-13/16 (+2-7/16) x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]	
Package Dimensions	W x D x H: In. [mm]	37-1/16 x 16-3/16 x 27-7/16 [941 x 411 x 697]	
Unit Weight	Lbs. [kg]	92 [41]	
Package Weight	Lbs. [kg]	103 [46]	
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / -40 DB
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 7.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	.1 [1]

NOTES:
 AHRI Rated Conditions
 (Rated data is determined at a fixed compressor speed) ¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

*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 12U*****

SPECIFICATIONS: TPLA0A0121EA80A & TRUYA0121KA70NA

Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	165 [50]
	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) ¹Cooling (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 12U*****

INDOOR UNIT ACCESSORIES: TPLA0A0121EA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Wireless Remote Controller	<input type="checkbox"/> PAR-SL101A-E
Casement	Wireless Signal Receiver Panel	<input type="checkbox"/> PAR-SR4LU-E
	Multi-function Casement	<input type="checkbox"/> PAC-SJ41TM-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H	<input type="checkbox"/> X86-003
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter	High Efficiency Filter Element**	<input type="checkbox"/> PAC-SH59KF-E
i-see Sensor® Panel	Grille with 3D i-see Sensor® (required)	<input checked="" type="checkbox"/> TLP-41EAEU
Lineset	100' x 1/4" x 100' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-100
	15' x 1/4" x 15' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-15
	30' x 1/4" x 30' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-30
	50' x 1/4" x 50' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-50
	65' x 1/4" x 65' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-65
Shutter Plate	Shutter Plate	<input type="checkbox"/> PAC-SJ37SP-E
Space Panel	Space Panel	<input type="checkbox"/> PAC-SJ38AS-E

NOTES:

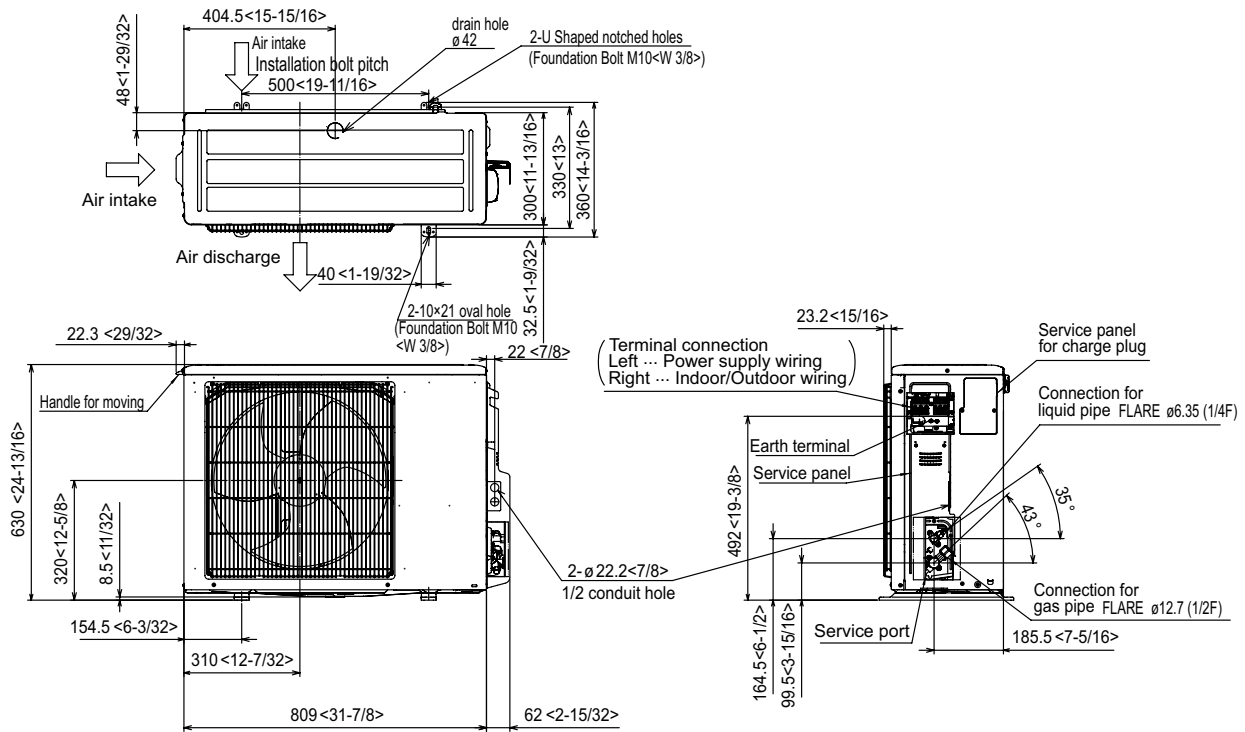
†PAC-SF40RM-E (Unable to use with wireless remote controller)

OUTDOOR UNIT ACCESSORIES: TRUYA0121KA70NA

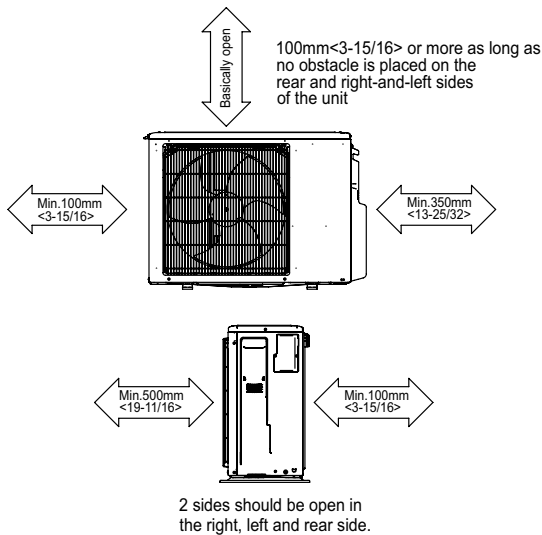
Air Outlet Guide	Air Outlet Guide	<input type="checkbox"/> PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	<input type="checkbox"/> PAC-SG63DP-E
	Drain Pan	<input type="checkbox"/> PAC-SG64DP-E
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	<input type="checkbox"/> M21EC1397
Drain Socket	Drain Socket	<input type="checkbox"/> MAC-871DS
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A5
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	<input type="checkbox"/> ULTRILITE1
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA4
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD4

OUTDOOR UNIT DIMENSIONS: TRUYA0121KA70NA

Unit: mm<in>



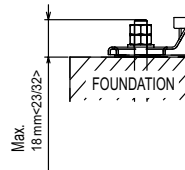
Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

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

<Foundation bolt height>



PIPING-WIRING DIRECTION

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

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



Job Name: **Crossroads Dayton Campus**
System Reference: **HP-10, HP-11**

Date: **12/06/2023**



Indoor Unit.....TPLA0A0121EA80A

Outdoor Unit.....TRUZA0121KA70NA

INDOOR UNIT FEATURES

- Space-efficient ductless installation
- Equipped with 3D i-see Sensor® for enhanced comfort and energy efficiency
- Airflow settings for high and low ceiling applications
- Individual vane settings for direct/indirect airflow control or variable airflow patterns
- Knockouts for outside-air intake and branch-duct run
- Filter indicator signal
- Easy-to-clean, washable filter (optional high-efficiency filter available - requires multi-function casement)
- Built-in condensate lift mechanism
- Ideal for retail shops, classrooms, office spaces, conference centers, building lobbies, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection*
 - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
 - Fan Motor Support: Epoxy resin coating (at edge face)
 - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
 - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
 - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

*Seacoast protection standard from 2022 production

SPECIFICATIONS: TPLA0A0121EA80A & TRUZA0121KA70NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	12,000
	Rated Capacity	BTU/H	12,000
	Minimum Capacity	BTU/H	5,800
	Maximum Power Input	W	730
	Rated Power Input	W	730
	Moisture Removal	Pints/h	1.2
	Sensible Heat Factor		0.89
Efficiency	Power Factor [208V / 230V]	%	93.5 / 93.5
	SEER2		26.9
	EER2 ¹		16.4
Electrical	HSPF2 [IV]		—
	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
	Indoor Unit	MCA	A
Fan Motor Full Load Amperage		A	0.28
Fan Motor Type			DC Motor
Airflow Rate at Cooling, Dry		CFM	370–460–490–530
Airflow Rate at Cooling, Wet		CFM	340–420–450–490
Airflow Rate at Heating, Dry		CFM	370–460–490–530
Sound Pressure Level [Cooling]		dB[A]	26–27–29–30
Sound Pressure Level [Heating]		dB[A]	26–27–29–30
Drain Pipe Size		In. [mm]	1-1/4 [32]
Condensate Lift Mechanism, Maximum Distance		In. [mm]	33-7/16 [850]
Coating on Heat Exchanger			—
External Finish Color			White Munsell 6.4Y 8.9/0.4
Unit Dimensions		W x D x H: In. [mm]	33-1/16 x 33-1/16 x 10-3/16 [840 x 840 x 258]
Package Dimensions		W x D x H: In. [mm]	34-19/64 x 35-35/64 x 15 [871 x 903 x 381]
Unit Weight		Lbs. [kg]	46 [21]
Package Weight	Lbs. [kg]	77 [34.8]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB
Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling ¹	dB(A)	44
	Sound Pressure Level, Heating ²	dB(A)	46
	Compressor Type		INVERTER-driven twin rotary
	Compressor Model		SNB092FQCMC
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 12
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
Unit Dimensions	W x D x H: In. [mm]	31-13/16 (2+7/16) x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]	
Package Dimensions	W x D x H: In. [mm]	37-1/16 x 16-3/16 x 27-7/16 [941 x 411 x 697]	
Unit Weight	Lbs. [kg]	93 [42]	
Package Weight	Lbs. [kg]	104 [47]	
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / 12 DB, 14 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	8 / 12

NOTES:

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

Conditions	⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
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*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » Wind baffles required to operate below 23°F DB in cooling mode.
 - » Heat pump system with wind baffle: 0°F - 115°F.
 - » Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

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

SPECIFICATIONS: TPLA0A0121EA80A & TRUZA0121KA70NA

	Type		R410A
Refrigerant	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 7.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.2 [19]
	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
Piping	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

¹ Cooling (Indoor // Outdoor) ² Heating at 47°F (Indoor // Outdoor) ³ Heating at 17°F (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB 70 DB, 60 WB // 47 DB, 43 WB 70 DB, 60 WB // 17 DB, 15 WB
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Conditions ⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » Wind baffles required to operate below 23°F DB in cooling mode.
 - » Heat pump system with wind baffle: 0°F - 115°F.
 - » Refer to wind baffle documentation for further information.

****Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):**

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

*****Blue Fin Coating Standard from 2022 production:**

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

INDOOR UNIT ACCESSORIES: TPLA0A0121EA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Wireless Remote Controller	<input type="checkbox"/> PAR-SL101A-E
Casement	Wireless Signal Receiver Panel	<input type="checkbox"/> PAR-SR4LU-E
	Multi-function Casement	<input type="checkbox"/> PAC-SJ41TM-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H	<input type="checkbox"/> X86-003
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter	High Efficiency Filter Element**	<input type="checkbox"/> PAC-SH59KF-E
i-see Sensor® Panel	Grille with 3D i-see Sensor® (required)	<input checked="" type="checkbox"/> TLP-41EAEU
Lineset	100' x 1/4" x 100' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-100
	15' x 1/4" x 15' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-15
	30' x 1/4" x 30' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-30
	50' x 1/4" x 50' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-50
	65' x 1/4" x 65' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-65
Shutter Plate	Shutter Plate	<input type="checkbox"/> PAC-SJ37SP-E
Space Panel	Space Panel	<input type="checkbox"/> PAC-SJ38AS-E

NOTES:

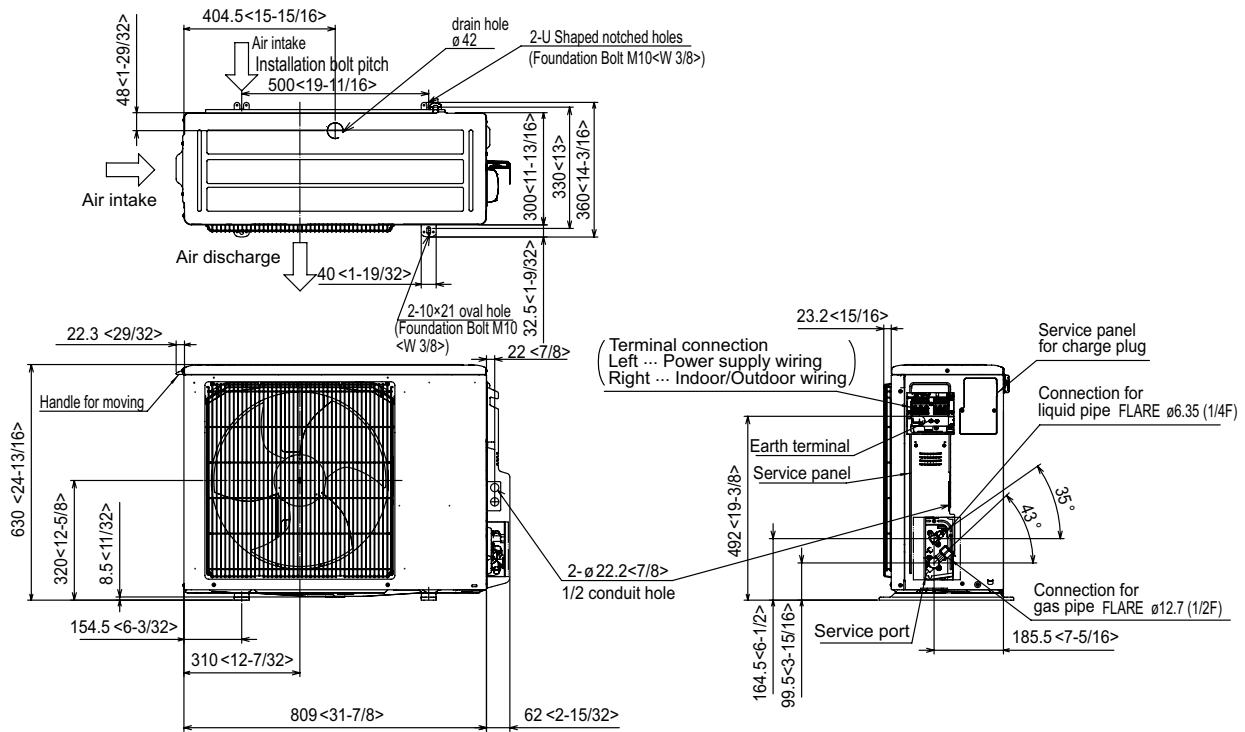
†PAC-SF40RM-E (Unable to use with wireless remote controller)

OUTDOOR UNIT ACCESSORIES: TRUZA0121KA70NA

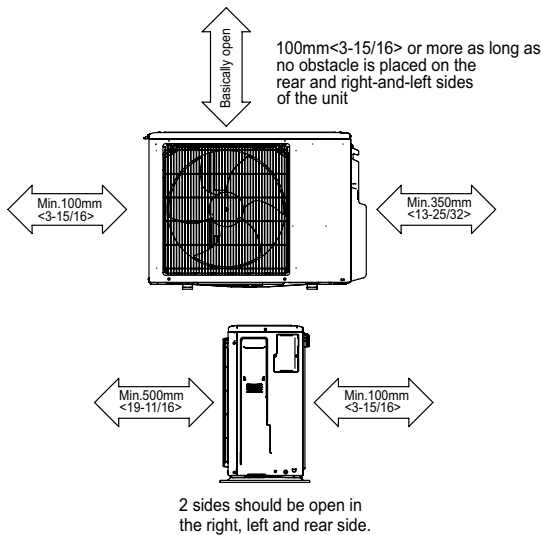
Air Outlet Guide	Air Outlet Guide	<input type="checkbox"/> PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	<input type="checkbox"/> PAC-SG63DP-E
	Drain Pan	<input type="checkbox"/> PAC-SG64DP-E
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	<input type="checkbox"/> M21EC1397
Drain Socket	Drain Socket	<input type="checkbox"/> MAC-871DS
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A5
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	<input type="checkbox"/> ULTRILITE1
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA4
	Rear Wind Baffle	<input type="checkbox"/> WB-RE4
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD4

OUTDOOR UNIT DIMENSIONS: TRUZA0121KA70NA

Unit: mm<in>



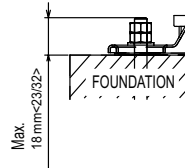
Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

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

<Foundation bolt height>



PIPING-WIRING DIRECTION

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

**TPEADA0121AA80A & TRUZA0121KA70NA
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
12,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR**



Job Name: **Crossroads Dayton Campus**

System Reference: **HP-9**

Date: **12/06/2023**



Indoor Unit.....TPEADA0121AA80A

Outdoor Unit.....TRUZA0121KA70NA

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection*
 - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
 - Fan Motor Support: Epoxy resin coating (at edge face)
 - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
 - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
 - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

*Seacoast protection standard from 2022 production

SPECIFICATIONS: TPEADA0121AA80A & TRUZA0121KA70NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	12,000
	Rated Capacity	BTU/H	12,000
	Minimum Capacity	BTU/H	5,000
	Maximum Power Input	W	920
	Rated Power Input	W	920
	Moisture Removal	Pints/h	1.8
	Sensible Heat Factor		0.83
Heating at 47°F ²	Maximum Capacity	BTU/H	18,000
	Rated Capacity	BTU/H	14,000
	Minimum Capacity	BTU/H	5,800
	Maximum Power Input	W	1,520
	Rated Power Input	W	1,030
	Power Factor [208V / 230V]	%	91.4 / 91.4
Heating at 17°F ³	Maximum Capacity	BTU/H	10,500
	Rated Capacity	BTU/H	8,700
	Maximum Power Input	W	1,130
	Rated Power Input	W	1,100
Heating at -4°F ⁵	Maximum Capacity	BTU/H	8,600
	SEER		21.1
	EER ¹		13.0
	HSPF [IV]		10.2
	COP at 47°F ²		3.9
	COP at 17°F at Maximum Capacity ³		2.7
	COP at -4°F at Maximum Capacity ⁵		2.0
Electrical	ENERGY STAR [®] Certified		Yes
	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
	MCA	A	2.23
Indoor Unit	Fan Motor Full Load Amperage	A	1.78
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	353-424-494
	Airflow Rate at Cooling, Wet	CFM	318-382-445
	Airflow Rate at Heating, Dry	CFM	353-424-494
	Sound Pressure Level [Cooling]	dB[A]	27-31-34
	Sound Pressure Level [Heating]	dB[A]	27-31-34
	External Static Pressure	in.WG	0.14-0.2-0.28-0.4-0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	35-7/16 x 28-7/8 x 9-7/8 [900 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	46-1/16 x 35-7/16 x 13 [1,170 x 900 x 330]
	Unit Weight	Lbs. [kg]	58 [26]
	Package Weight	Lbs. [kg]	69 [31]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » Wind baffles required to operate below 23°F DB in cooling mode.
 - » Heat pump system with wind baffle: 0°F - 115°F.
 - » Refer to wind baffle documentation for further information.

****Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):**

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

*****Blue Fin Coating Standard from 2022 production:**

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

SPECIFICATIONS: TPEADA0121AA80A & TRUZA0121KA70NA

Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling ¹	dB(A)	44
	Sound Pressure Level, Heating ²	dB(A)	46
	Compressor Type		INVERTER-driven twin rotary
	Compressor Model		SNB092FQCMC
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 12
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
	Unit Dimensions	W x D x H: In. [mm]	31-13/16 (2+7/16) x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]
	Package Dimensions	W x D x H: In. [mm]	37-1/16 x 16-3/16 x 27-7/16 [941 x 411 x 697]
	Unit Weight	Lbs. [kg]	93 [42]
Package Weight	Lbs. [kg]	104 [47]	
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / 12 DB, 14 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	8 / 12
Refrigerant	Type		R410A
	Maximum Charge Quantity	Lbs, oz	4.0, 7.0
	Initial Charge Quantity	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.2 [19]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions
 (Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
 - » Wind baffles required to operate below 23°F DB in cooling mode.
 - » Heat pump system with wind baffle: 0°F - 115°F.
 - » Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

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

INDOOR UNIT ACCESSORIES: TPEADA0121AA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2	
Remote Sensor	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	<input type="checkbox"/> CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	<input type="checkbox"/> CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter Box	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-2-A
Lineset	100' x 1/4" x 100' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-100
	15' x 1/4" x 15' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-15
	30' x 1/4" x 30' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-30
	50' x 1/4" x 50' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-50
	65' x 1/4" x 65' / 1/2" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MLS141212T-65

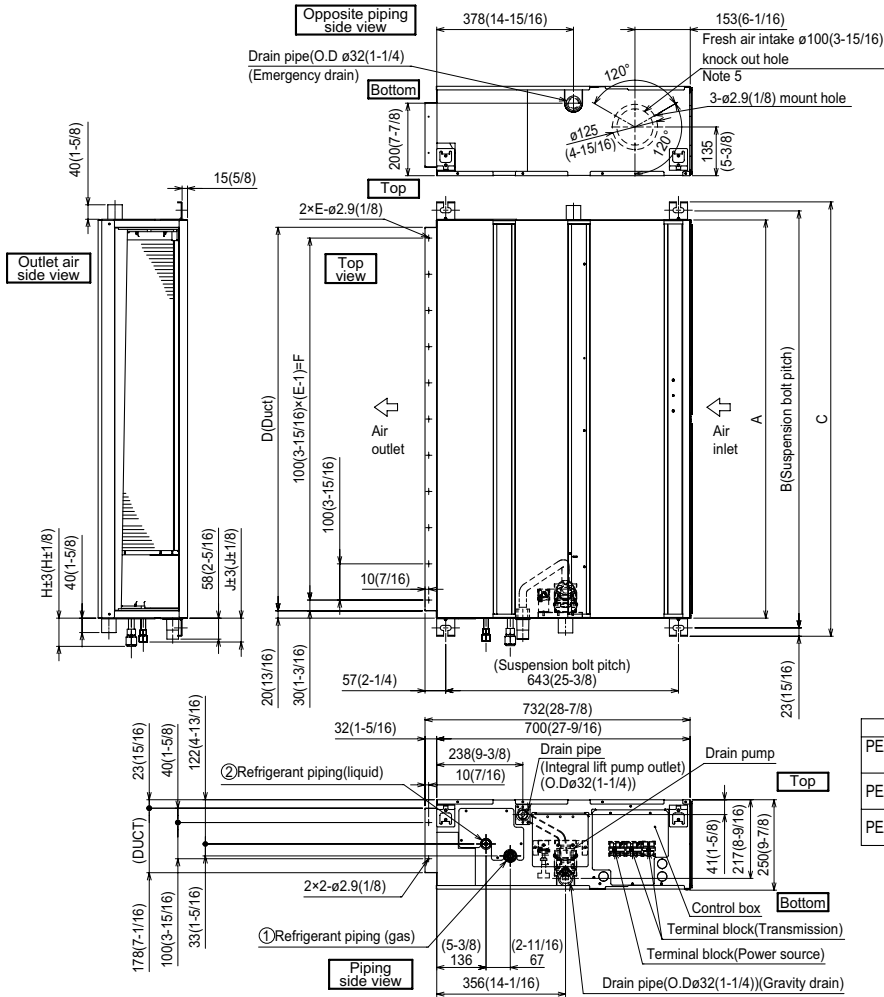
NOTES:

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

OUTDOOR UNIT ACCESSORIES: TRUZA0121KA70NA

Air Outlet Guide	Air Outlet Guide	<input type="checkbox"/> PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	<input type="checkbox"/> PAC-SG63DP-E
	Drain Pan	<input type="checkbox"/> PAC-SG64DP-E
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	<input type="checkbox"/> M21EC1397
Drain Socket	Drain Socket	<input type="checkbox"/> MAC-871DS
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A5
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	<input type="checkbox"/> ULTRILITE1
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA4
	Rear Wind Baffle	<input type="checkbox"/> WB-RE4
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD4

INDOOR UNIT DIMENSIONS: TPEADA0121AA80A



- Notes
1. Use an M10 screw for the suspension bolt (field supply).
 2. Keep the service space for maintenance at the bottom.
 3. This drawing is for PEAD-A09-12-15-18-24-30AA8 models, which have 2 fans. PEAD-A36AA8 model has 3 fans.
 4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
 5. Heat air to 0°C (32°F) or higher when taking fresh air with a fresh air intake.

Unit:mm(in.)

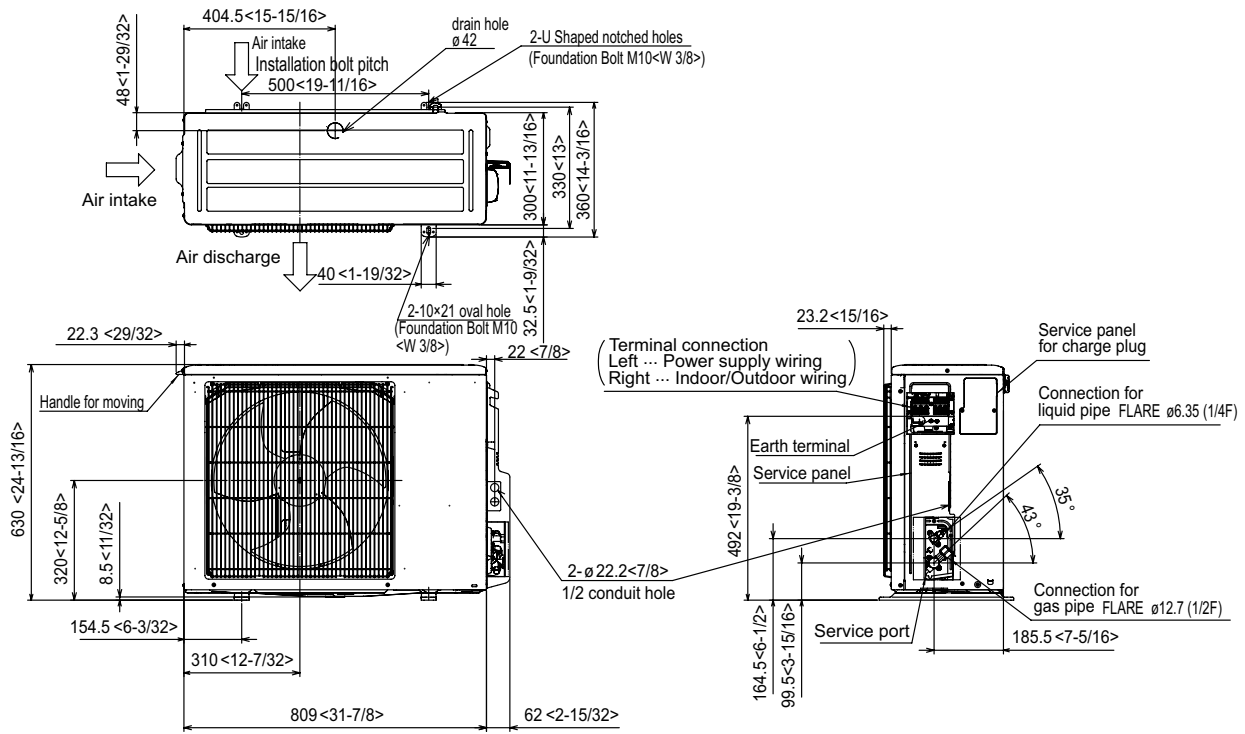
Model	J	①Gas pipe	②Liquid pipe
PEAD-A09AA8	62 (2-1/2)	$\phi 9.52$ (3/8)	$\phi 6.35$ (1/4)
PEAD-A12,15,18AA8	62 (2-1/2)	$\phi 12.7$ (1/2)	$\phi 6.35$ (1/4)
PEAD-A24,30AA8	66 (2-5/8)	$\phi 15.88$ (5/8)	$\phi 9.52$ (3/8)
PEAD-A36AA8			

Unit:mm(in.)

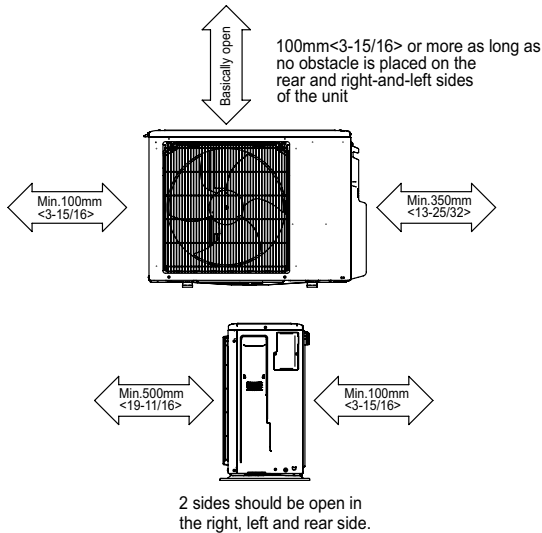
Model	A	B	C	D	E	F	G	H
PEAD-A09,12,15,18AA8	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24,30AA8	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36AA8	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

OUTDOOR UNIT DIMENSIONS: TRUZA0121KA70NA

Unit: mm<in>



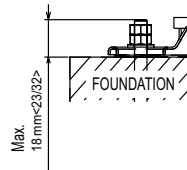
Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

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

<Foundation bolt height>



PIPING-WIRING DIRECTION

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

**TPEADA0241AA80A & TRUZH0241HA10NA
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR**



Job Name: **Crossroads Dayton Campus**

System Reference: **HP-1**

Date: **12/06/2023**



Indoor Unit.....TPEADA0241AA80A

Outdoor Unit.....TRUZH0241HA10NA

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 70 ft.
- High pressure/temperature protection
- Built-in base pan heater

SPECIFICATIONS: TPEADA0241AA80A & TRUZH0241HA10NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,080
	Rated Power Input	W	2,080
	Moisture Removal	Pints/h	6.9
	Sensible Heat Factor		0.68
Heating at 47°F ²	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,280
	Rated Power Input	W	1,920
	Power Factor [208V / 230V]	%	92.0 / 92.0
	Heating at 17°F ³	Maximum Capacity	BTU/H
Rated Capacity		BTU/H	18,000
Maximum Power Input		W	3,450
Rated Power Input		W	2,100
Heating at 5°F ⁴	Maximum Capacity	BTU/H	25,000
	Maximum Power Input	W	3,830
Heating at -4°F ⁵	Maximum Capacity	BTU/H	22,400
Heating at -13°F ⁷	Maximum Capacity	BTU/H	20,000
Efficiency	SEER SEER2		16.6 16.2
	EER ¹ EER2 ¹		11.5 11.3
	HSPF [IV] HSPF2 [IV]		10.4 9.2
	COP at 47°F ²		3.8
	COP at 17°F at Maximum Capacity ³		2.1
	COP at 5°F at Maximum Capacity ⁴		1.9
	ENERGY STAR® Certified		No
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Power Supply		Indoor unit is powered by the outdoor unit	
Indoor Unit	MCA	A	2.28
	Fan Motor Full Load Amperage	A	1.82
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512-635-741
	Airflow Rate at Cooling, Wet	CFM	461-572-667
	Airflow Rate at Heating, Dry	CFM	512-635-741
	Sound Pressure Level [Cooling]	dB[A]	28-32-36
	Sound Pressure Level [Heating]	dB[A]	28-32-36
	External Static Pressure	in.WG	0.14-0.2-0.28-0.4-0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	53-15/16 x 35-7/16 x 13 [1,370 x 900 x 330]
Unit Weight	Lbs. [kg]	67 [30]	
Package Weight	Lbs. [kg]	80 [36]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

²Heating at 47°F (Indoor // Outdoor)

³Heating at 17°F (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

⁵Heating at -4°F (Indoor // Outdoor)

⁷Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

°F 70 DB, 60 WB // -4 DB, -5 WB

°F 70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

SPECIFICATIONS: TPEADA0241AA80A & TRUZH0241HA10NA

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 34
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F
Heating Air Temp [Maximum / Minimum]		°F	70 DB, 59 WB / -13 DB, -13 WB
Heating Thermal Lock-out / Re-start Temperatures**		°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	7.0, 11.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [65]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	3/8 [9.52]
	Maximum Piping Length	Ft. [m]	165 [50]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

⁵Heating at -4°F (Indoor // Outdoor) °F 70 DB, 60 WB // -4 DB, -5 WB

⁷Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

INDOOR UNIT ACCESSORIES: TPEADA0241AA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
Remote Sensor	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
Wired Remote Controller	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
Wireless Remote Controller	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
Condensate	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
Control Wire	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	<input type="checkbox"/> CW2042S2-100
Disconnect Switch	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	<input type="checkbox"/> CW2042S2-500
	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
Filter Box	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-3-A
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65

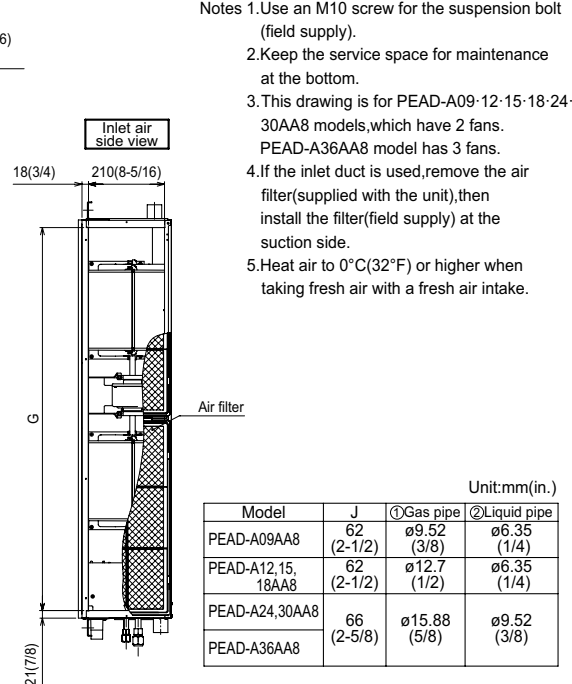
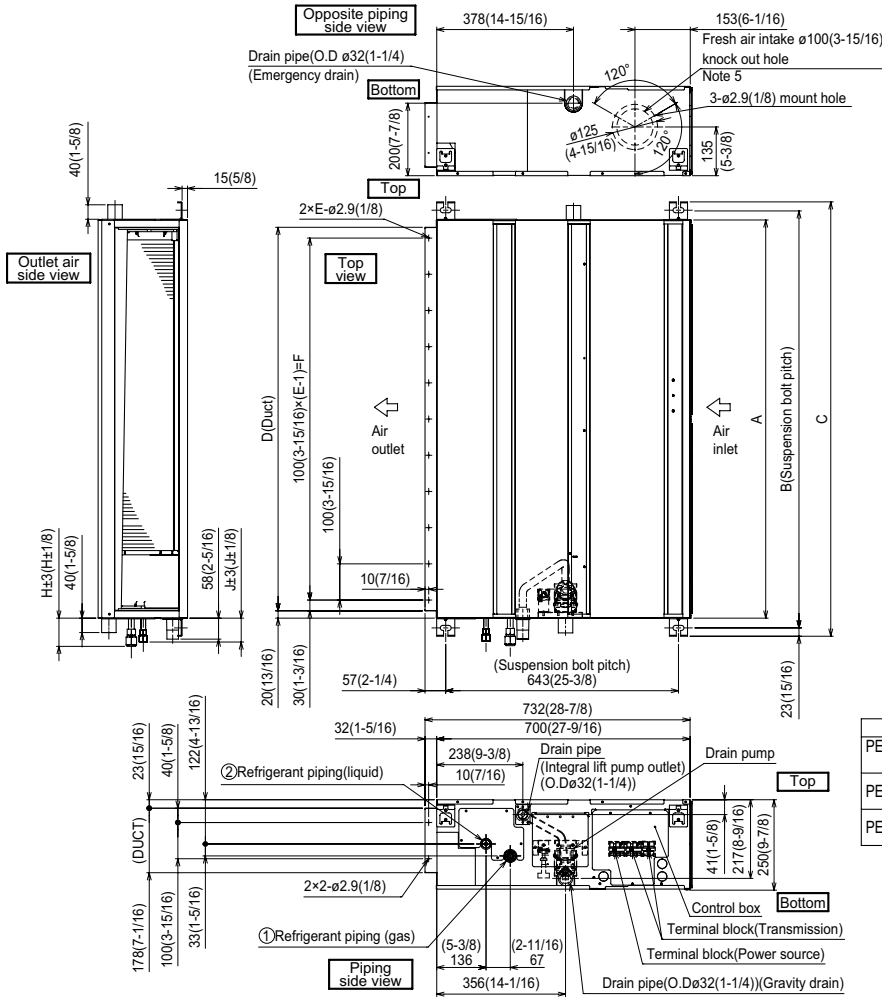
NOTES:

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

OUTDOOR UNIT ACCESSORIES: TRUZH0241HA10NA

Air Outlet Guide	Air Outlet Guide (1 Piece)	<input type="checkbox"/> PAC-SG59SG-E
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A6
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ85MA-E
	M-NET Converter	<input type="checkbox"/> PAC-SJ95MA-E
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA5
	Rear Wind Baffle	<input type="checkbox"/> WB-RE5
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD5

INDOOR UNIT DIMENSIONS: TPEADA0241AA80A



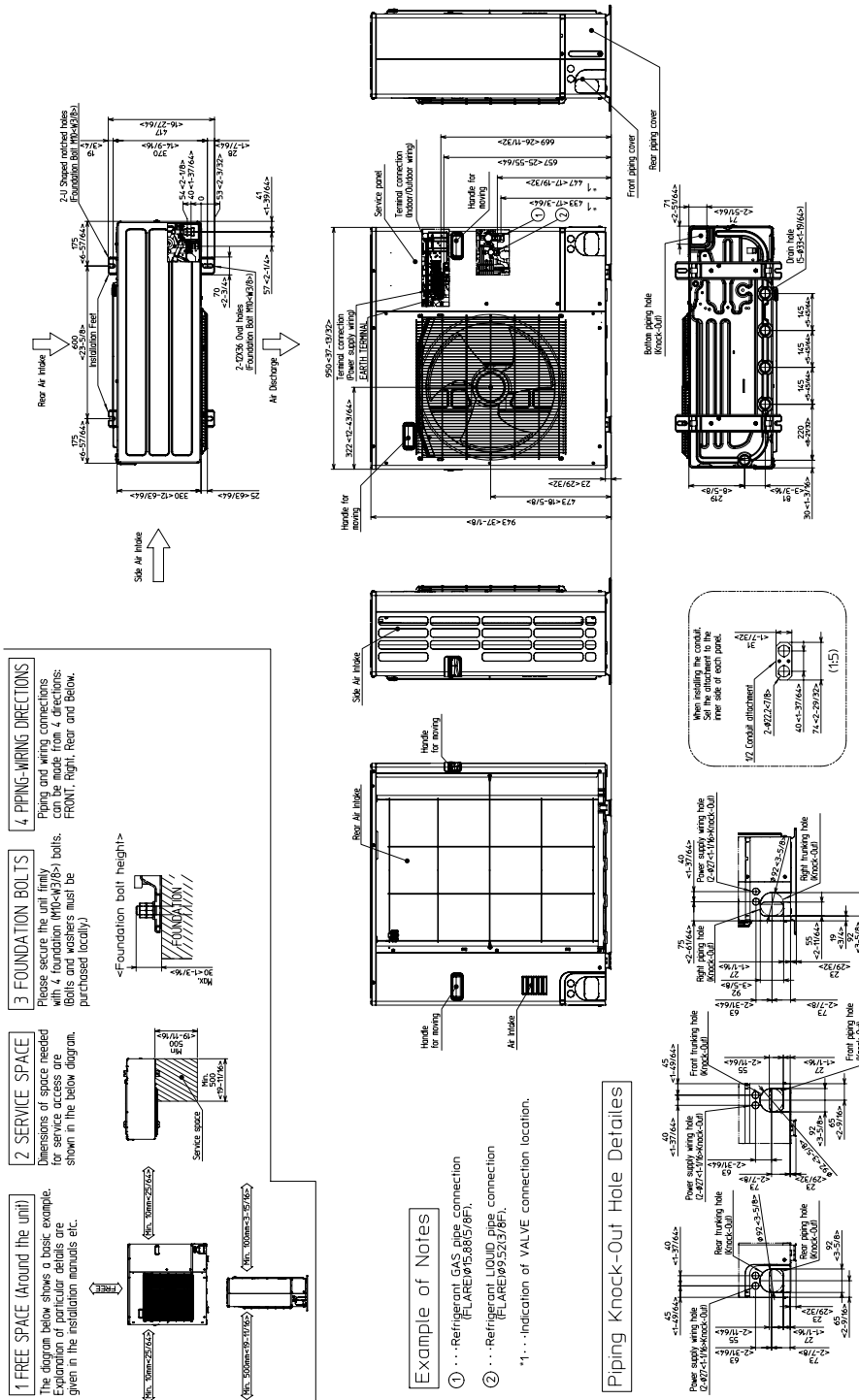
Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
PEAD-A09,12,15,18AA8	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24,30AA8	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36AA8	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

- Notes
1. Use an M10 screw for the suspension bolt (field supply).
 2. Keep the service space for maintenance at the bottom.
 3. This drawing is for PEAD-A09-12-15-18-24-30AA8 models, which have 2 fans. PEAD-A36AA8 model has 3 fans.
 4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
 5. Heat air to 0°C (32°F) or higher when taking fresh air with a fresh air intake.

OUTDOOR UNIT DIMENSIONS: TRUZH0241HA10NA

Unit: mm<in>



TPLA0A0241EA80A & TRUZH0241HA10NA
24,000 BTU/H 3' X 3' CEILING CASSETTE
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR



Job Name: **Crossroads Dayton Campus**
System Reference: **HP-7, HP-8**

Date: **12/06/2023**



Indoor Unit.....TPLA0A0241EA80A

Outdoor Unit.....TRUZH0241HA10NA



INDOOR UNIT FEATURES

- Space-efficient ductless installation
- Equipped with 3D i-see Sensor® for enhanced comfort and energy efficiency
- Airflow settings for high and low ceiling applications
- Individual vane settings for direct/indirect airflow control or variable airflow patterns
- Knockouts for outside-air intake and branch-duct run
- Filter indicator signal
- Easy-to-clean, washable filter (optional high-efficiency filter available - requires multi-function casement)
- Built-in condensate lift mechanism
- Ideal for retail shops, classrooms, office spaces, conference centers, building lobbies, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 70 ft.
- High pressure/temperature protection
- Built-in base pan heater

SPECIFICATIONS: TPLA0A0241EA80A & TRUZH0241HA10NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	1,710
	Rated Power Input	W	1,710
	Moisture Removal	Pints/h	3.0
	Sensible Heat Factor		0.86
Heating at 47°F ²	Power Factor [208V / 230V]	%	98.0 / 98.0
	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	26,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	1,900
	Rated Power Input	W	1,700
Heating at 17°F ³	Power Factor [208V / 230V]	%	98.0 / 98.0
	Maximum Capacity	BTU/H	26,000
	Rated Capacity	BTU/H	17,300
	Maximum Power Input	W	3,000
Heating at 5°F ⁴	Rated Power Input	W	1,816
	Maximum Capacity	BTU/H	26,000
Heating at -13°F ⁷	Maximum Power Input	W	3,966
	Maximum Capacity	BTU/H	20,800
Efficiency	SEER ²		21.6
	EER ² ¹		14.0
	HSPF ² [IV]		10.0
	COP at 47°F ²		4.5
	COP at 17°F at Maximum Capacity ³		2.5
	COP at 5°F at Maximum Capacity ⁴		1.9
Electrical	ENERGY STAR [®] Certified		No
	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Indoor Unit	Power Supply		Indoor unit is powered by the outdoor unit
	MCA	A	1.0
	Fan Motor Full Load Amperage	A	0.28
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	530-640-710-810
	Airflow Rate at Cooling, Wet	CFM	490-600-670-770
	Airflow Rate at Heating, Dry	CFM	530-640-710-810
	Sound Pressure Level [Cooling]	dB[A]	28-30-33-36
	Sound Pressure Level [Heating]	dB[A]	28-30-33-36
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	33-7/16 [850]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 6.4Y 8.9/0.4
	Unit Dimensions	W x D x H: In. [mm]	33-1/16 x 33-1/16 x 11-3/4 [840 x 840 x 298]
	Package Dimensions	W x D x H: In. [mm]	34-19/64 x 35-35/64 x 16-37/64 [871 x 903 x 421]
Unit Weight	Lbs. [kg]	57 [26]	
Package Weight	Lbs. [kg]	89 [40]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

⁷Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

SPECIFICATIONS: TPLA0A0241EA80A & TRUZH0241HA10NA

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 34
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F
Heating Air Temp [Maximum / Minimum]		°F	70 DB, 59 WB / -13 DB, -13 WB
Heating Thermal Lock-out / Re-start Temperatures**		°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	7.0, 11.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [65]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	3/8 [9.52]
	Maximum Piping Length	Ft. [m]	165 [50]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

⁷Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

INDOOR UNIT ACCESSORIES: TPLA0A0241EA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Wireless Remote Controller	<input type="checkbox"/> PAR-SL101A-E
Casement	Wireless Signal Receiver Panel	<input type="checkbox"/> PAR-SR4LU-E
	Multi-function Casement	<input type="checkbox"/> PAC-SJ41TM-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter	High Efficiency Filter Element**	<input type="checkbox"/> PAC-SH59KF-E
i-see Sensor® Panel	Grille with 3D i-see Sensor®	<input type="checkbox"/> TLP-41EAEU
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65
Shutter Plate	Shutter Plate	<input type="checkbox"/> PAC-SJ37SP-E
Space Panel	Space Panel	<input type="checkbox"/> PAC-SJ38AS-E

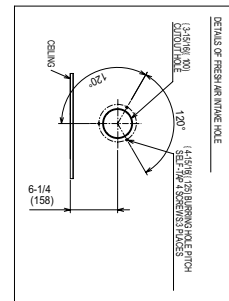
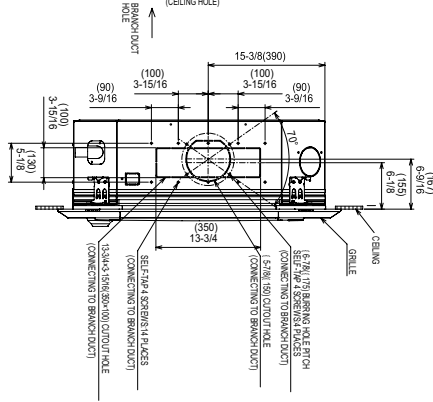
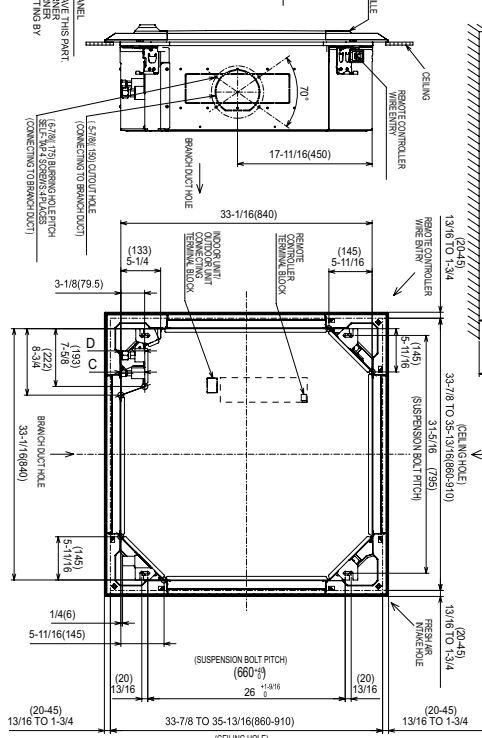
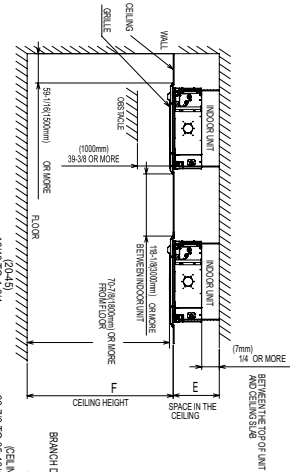
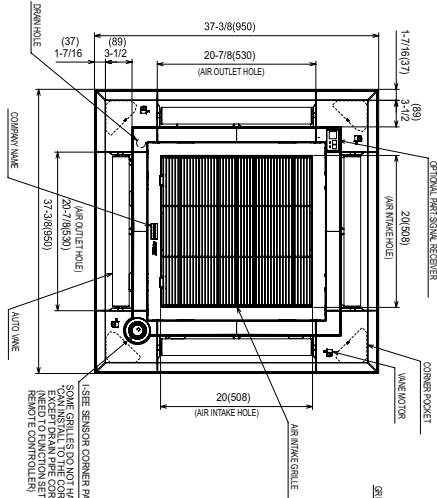
OUTDOOR UNIT ACCESSORIES: TRUZH0241HA10NA

Air Outlet Guide	Air Outlet Guide (1 Piece)	<input type="checkbox"/> PAC-SG59SG-E
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A6
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ85MA-E
	M-NET Converter	<input type="checkbox"/> PAC-SJ95MA-E
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA5
	Rear Wind Baffle	<input type="checkbox"/> WB-RE5
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD5

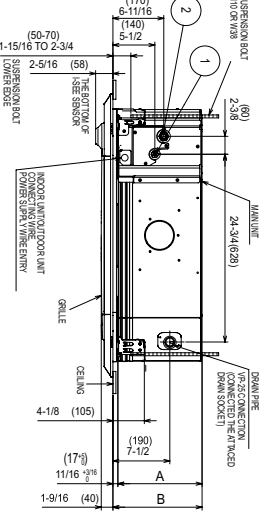
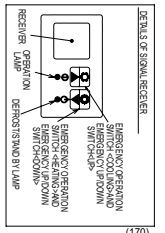
INDOOR UNIT DIMENSIONS: TPLA0A0241EA80A

Unit: inch (mm)

- 1) CHOOSE THE GRILLE AMONG THE DEDICATED GRILLES.
- 2) REINFORCE THE SUSPENSION BOLT FOR EARTHQUAKE-RESISTANCE AS NEEDED.
- 3) PROCEED AT THE LOCAL SITE.
- 4) FOR DRAIN PIPE, USE W-24(0.4114" I.D.) PVC TUBE.
- 5) DRAIN PIPE MUST BE CONNECTED TO THE CEILING.
- 6) ELECTRICAL BOX MAY BE REMOVED FOR THE SERVICE PURPOSE.
- 7) REQUIRE "E" OR MORE SPACE BETWEEN TRANSOM AND CEILING FOR THE INSTALLATION.
- 8) WHEN INSTALLING THE BRANCH DUCTS, BE SURE TO INSULATE ADEQUATELY.
- 9) AS FOR NECESSARY INSTALLATION SERVICE SPACE, PLEASE REFER TO THE OPTION FOR NECESSARY INSTALLATION SERVICE SPACE.
- 10) FOR THE INSTALLATION OF THE OPTIONAL HIGH EFFICIENCY FILTER OR MULTIFUNCTIONAL CASEMENT, REFER TO SPECIAL DRAWING.

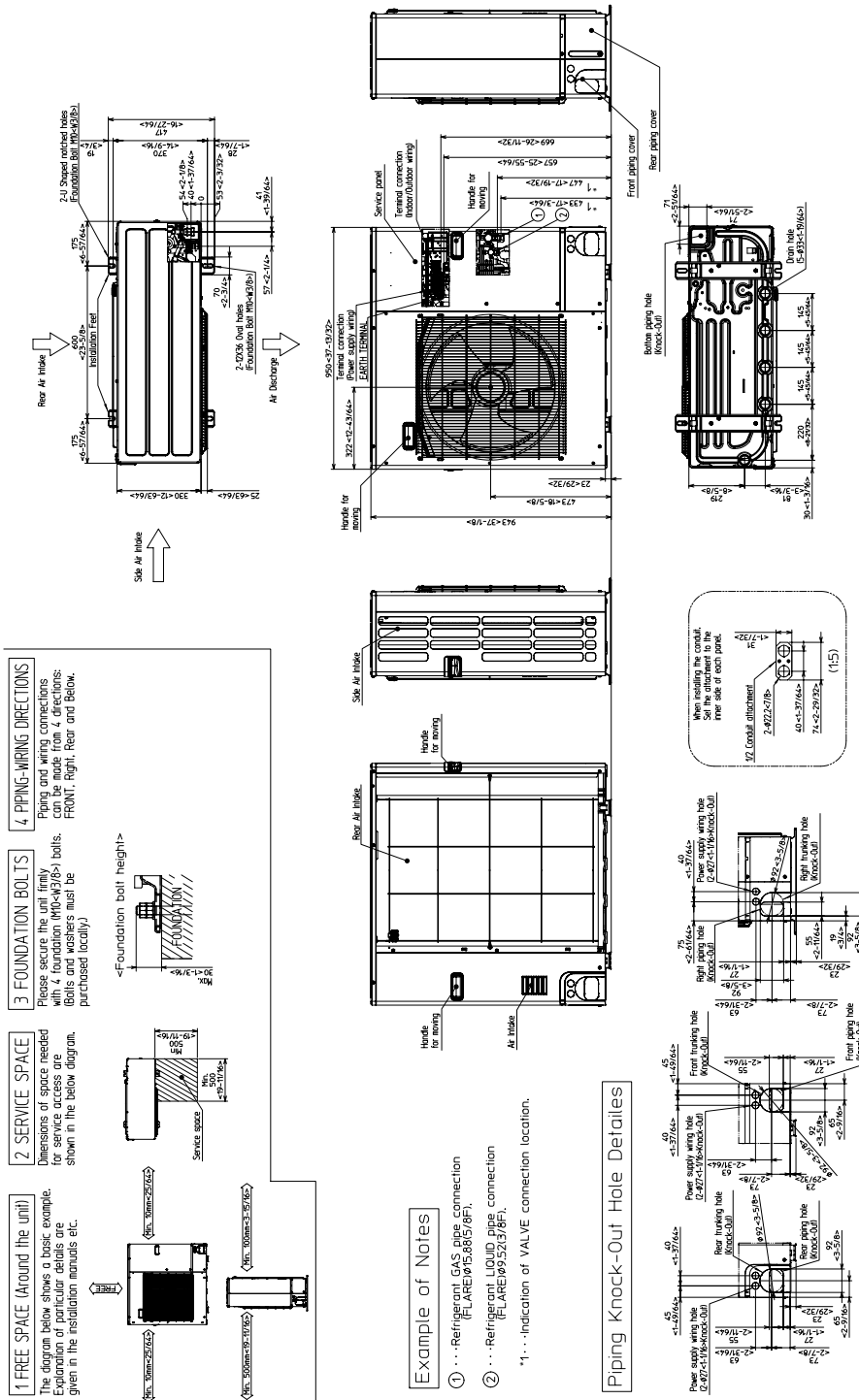


MODELS	①	②	A	B	C	D	E	F
REGULATORY PREPARAS	REGULATORY PREPARAS	REGULATORY PREPARAS	10.2(254)	10.2(254)	10.2(254)	10.2(254)	10.2(254)	10.2(254)
TRANSOM CONNECTION LINE	TRANSOM CONNECTION LINE	TRANSOM CONNECTION LINE	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)
REGULATORY PREPARAS	REGULATORY PREPARAS	REGULATORY PREPARAS	11.5(291)	11.5(291)	11.5(291)	11.5(291)	11.5(291)	11.5(291)
TRANSOM CONNECTION LINE	TRANSOM CONNECTION LINE	TRANSOM CONNECTION LINE	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)	3.7(93.9)



OUTDOOR UNIT DIMENSIONS: TRUZH0241HA10NA

Unit: mm<in>



**TPEADA0241AA70A & NTXSKS24A112AA
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR UNIT**



Job Name: **Crossroads Dayton Campus**

System Reference: **HP-2, HP-3**

Date: **12/06/2023**



Indoor Unit.....TPEADA0241AA70A

Outdoor Unit.....NTXSKS24A112AA

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology
- High-performance grooved piping for increased heat exchange efficiency

SPECIFICATIONS: TPEADA0241AA70A & NTXSKS24A112AA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	12,000
	Maximum Power Input	W	1,920
	Rated Power Input	W	1,920
	Moisture Removal	Pints/h	4.9
	Sensible Heat Factor		0.77
Heating at 47°F ²	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	14,400
	Maximum Power Input	W	2,540
	Rated Power Input	W	1,990
	Power Factor	%	98.8/98.8
Heating at 17°F ³	Maximum Capacity	BTU/H	15,000
	Rated Capacity	BTU/H	15,000
	Maximum Power Input	W	1,650
	Rated Power Input	W	1,650
Efficiency	SEER		18.0
	EER ¹		12.5
	HSPF [IV]		11.2
	COP at 47°F ²		3.6
	COP at 17°F at Maximum Capacity ³		2.66
	ENERGY STAR [®] Certified		Yes
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	187 - 253, 198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	20
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	2.63
	Fan Motor Full Load Amperage	A	2.1
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512-635-741
	Airflow Rate at Cooling, Wet	CFM	461-572-667
	Airflow Rate at Heating, Dry	CFM	512-635-741
	Sound Pressure Level [Cooling]	dB[A]	30-33-37
	Sound Pressure Level [Heating]	dB[A]	30-33-37
	External Static Pressure	in.WG	0.14-0.2-0.28-0.4-0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1100 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	53-3/16 x 34-11/16 x 13-7/16 [1350 x 880 x 341]
	Unit Weight	Lbs. [kg]	69 [31]
Package Weight	Lbs. [kg]	82 [37]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions	¹ Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
(Rated data is determined at a fixed compressor speed)	² Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	³ Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
	⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
	⁶ Heating at -5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -5 DB, -6 WB
	⁷ Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

**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.

SPECIFICATIONS: TPEADA0241AA70A & NTXSKS24A112AA

Outdoor Unit	MCA	A	17.0	
	MOCP	A	31	
	Fan Motor Full Load Amperage	A	1	
	Fan Motor Output	W	60	
	Airflow Rate	CFM	2020/1930	
	Refrigerant Control		LEV	
	Defrost Method		Reverse Cycle	
	Coating on Heat Exchanger		Blue Fin Coating	
	Sound Pressure Level, Cooling ¹	dB(A)	55	
	Sound Pressure Level, Heating ²	dB(A)	55	
	Compressor Type		DC INVERTER-driven	
	Compressor Model		SNB220FQGM1T	
	Compressor Rated Load Amps	A	13.0	
	Compressor Locked Rotor Amps	A	16.0	
	Compressor Oil Type // Charge	oz.	FV50S // 15.6	
	External Finish Color		Ivory Munsell 3Y 7.8/1.1	
	Base Pan Heater		Optional	
	Unit Dimensions	W x D x H: In. [mm]	33-1/16 x 13 x 34-5/8 [840 x 330 x 880]	
	Package Dimensions	W x D x H: In. [mm]	38-9/16 x 16-9/16 x 39 [980 x 420 x 990]	
	Unit Weight	Lbs. [kg]	129 [59]	
	Package Weight	Lbs. [kg]	145 [66]	
	Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 14 DB
		Cooling Thermal Lock-out / Re-start Temperatures**	°F	1 / 5
Heating Thermal Lock-out / Re-start Temperatures**		°F	10 / 14	
Refrigerant	Type		R410A	
	Charge	Lbs, oz	4, 14.0	
	Chargeless Piping Length	Ft. [m]	25.0 [7.5]	
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.538 [50]	
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]	
	Liquid Pipe Size O.D. [Flared]	In.[mm]	3/8 [9.52]	
	Maximum Piping Length	Ft. [m]	100 [30]	
	Maximum Height Difference	Ft. [m]	100 [30]	
	Maximum Number of Bends		10	

NOTES:

AHRI Rated Conditions
 (Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
⁶ Heating at -5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -5 DB, -6 WB
⁷ Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

**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.

INDOOR UNIT ACCESSORIES: TPEADA0241AA70A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	BACnet® and Modbus Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	Connector cable for remote display	<input type="checkbox"/> PAC-SA88HA-EP
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wired Think Controller White	<input type="checkbox"/> AZZBSTHINKCB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	<input type="checkbox"/> CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	<input type="checkbox"/> CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter Box	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-3-A
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65

NOTES:

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

OUTDOOR UNIT ACCESSORIES: NTXSKS24A112AA

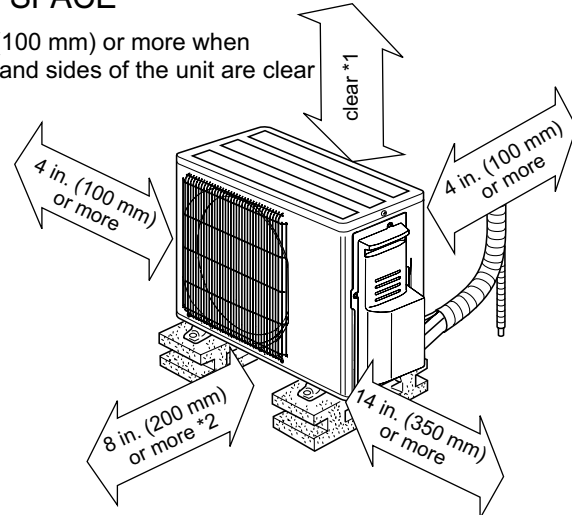
Air Outlet Guide	Air Outlet Guide	<input type="checkbox"/> PAC-ADG886AA-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	<input type="checkbox"/> M21EC1397
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	<input type="checkbox"/> ULTRILITE1
	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	<input type="checkbox"/> DSD-400P
Optional Defrost Heater	Base Heater	<input type="checkbox"/> MAC-642BH-U1
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M

OUTDOOR UNIT DIMENSIONS: NTXSKS24A112AA

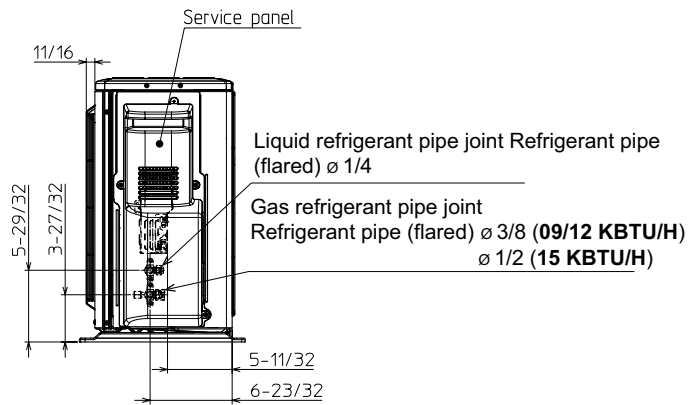
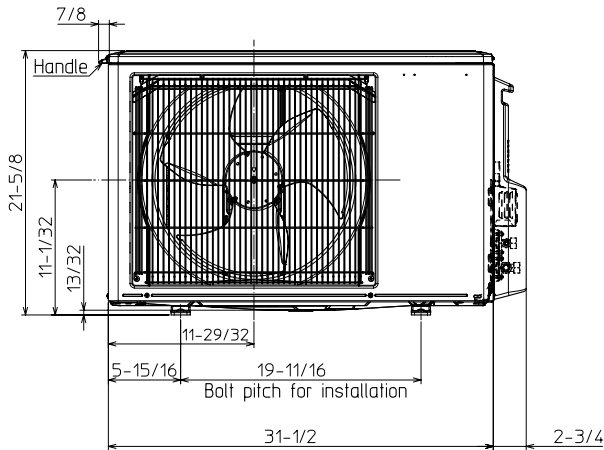
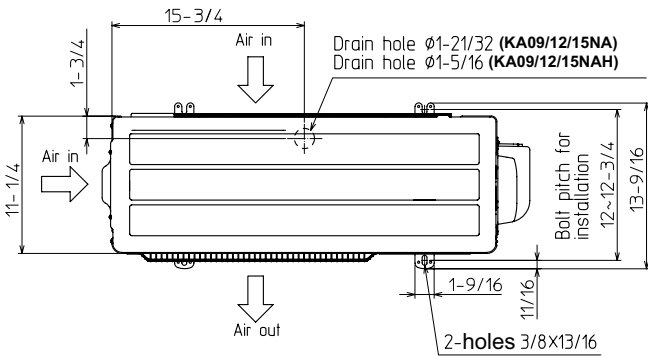
Unit: inch(mm)

REQUIRED SPACE

*1 4 in. (100 mm) or more when front and sides of the unit are clear



*2 When any 2 sides of left, right and rear of the unit are clear



**TPEADA0241AA70A & NTXSKH24A112AA
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT**



Job Name: **Crossroads Dayton Campus**

System Reference: **HP-5**

Date: **12/06/2023**



Indoor Unit.....TPEADA0241AA70A

Outdoor Unit.....NTXSKH24A112AA

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- INVERTER-driven compressor and LEV provide high efficiency and comfort while using only the energy needed to maintain maximum performance
- Pro-Heat performance offers 100% heating capacity at 5° F
- Hot-Start Technology: no cold air rush at equipment startup or when restarting after Defrost Cycle
- Quiet operation
- Built-in base pan heater
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology

SPECIFICATIONS: TPEADA0241AA70A & NTXSKH24A112AA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,080
	Rated Power Input	W	2,080
	Moisture Removal	Pints/h	6.9
	Sensible Heat Factor		0.68
Heating at 47°F ²	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,280
	Rated Power Input	W	1,920
	Power Factor	%	92.0/92.0
Heating at 17°F ³	Maximum Capacity	BTU/H	25,000
	Rated Capacity	BTU/H	18,000
	Maximum Power Input	W	3,450
	Rated Power Input	W	2,096
Heating at 5°F ⁴	Maximum Capacity	BTU/H	25,000
Maximum Power Input	W	3,826	
Heating at -13°F ⁷	Maximum Capacity	BTU/H	20,000
Efficiency	SEER		15.0
	EER ¹		10.3
	HSPF [IV]		9.0
	COP at 47°F ²		3.8
	COP at 17°F at Maximum Capacity ³		2.1
	COP at 5°F at Maximum Capacity ⁴		1.75
	COP at -13°F at Maximum Capacity ⁷		1.4
ENERGY STAR [®] Certified		No	
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	187 - 253, 198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Power Supply		Indoor unit is powered by the outdoor unit	
Indoor Unit	MCA	A	2.63
	Fan Motor Full Load Amperage	A	2.1
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512-635-741
	Airflow Rate at Cooling, Wet	CFM	461-572-667
	Airflow Rate at Heating, Dry	CFM	512-635-741
	Sound Pressure Level [Cooling]	dB[A]	30-33-37
	Sound Pressure Level [Heating]	dB[A]	30-33-37
	External Static Pressure	in.WG	0.14-0.2-0.28-0.4-0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1100 x 732 x 250]
Package Dimensions	W x D x H: In. [mm]	53-3/16 x 34-11/16 x 13-7/16 [1350 x 880 x 341]	
Unit Weight	Lbs. [kg]	69 [31]	
Package Weight	Lbs. [kg]	82 [37]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
⁶ Heating at -5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -5 DB, -6 WB
⁷ Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

**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.

SPECIFICATIONS: TPEADA0241AA70A & NTXSKH24A112AA

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate	CFM	800/800
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9.0
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil Type // Charge	oz.	FVC68D // 1,34
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F
Heating Air Temp [Maximum / Minimum]		°F	75 DB, 65 WB / -13 DB, -14 WB
Heating Thermal Lock-out / Re-start Temperatures**		°F	-22 / -13
Refrigerant	Type		R410A
	Charge	Lbs, oz	7, 11.0
	Chargeless Piping Length	Ft. [m]	100.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [65]
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]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
⁶ Heating at -5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -5 DB, -6 WB
⁷ Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

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

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

**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.

INDOOR UNIT ACCESSORIES: TPEADA0241AA70A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	BACnet® and Modbus Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	Connector cable for remote display	<input type="checkbox"/> PAC-SA88HA-EP
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wired Think Controller White	<input type="checkbox"/> AZZBSTHINKCB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	<input type="checkbox"/> CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	<input type="checkbox"/> CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter Box	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-3-A
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65

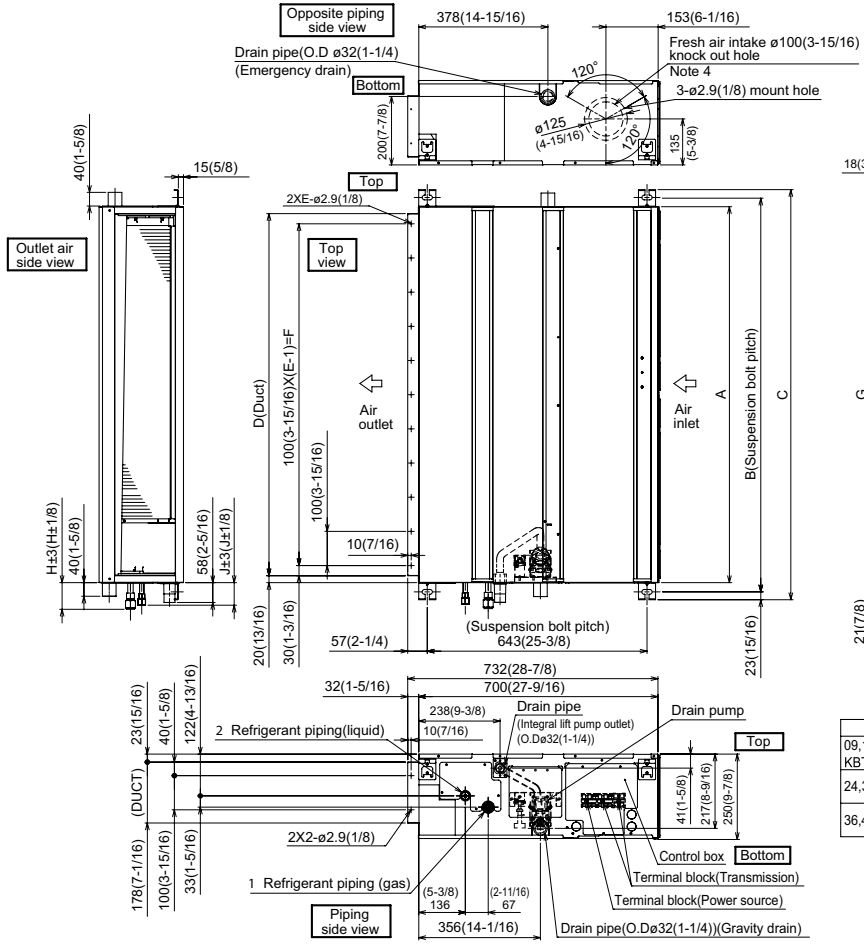
NOTES:

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

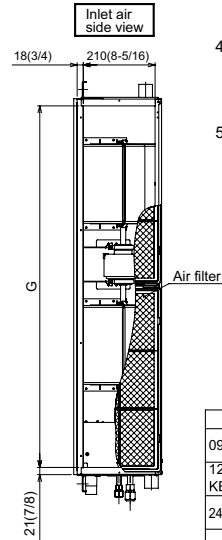
OUTDOOR UNIT ACCESSORIES: NTXSKH24A112AA

Air Outlet Guide	Air Outlet Guide (1 Piece)	<input type="checkbox"/> PAC-ADG059AA-E
Centralized Drain Pan	Drain Pan	<input type="checkbox"/> PAC-SG64DS-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
Drain Socket	Drain Socket	<input type="checkbox"/> PAC-SH71DS-E
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A6
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
Stand	18" Single Fan Stand	<input type="checkbox"/> QSMS1801M
	24" Single Fan Stand	<input type="checkbox"/> QSMS2401M
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1201M

INDOOR UNIT DIMENSIONS: TPEADA0241AA70A



- Note 1. Use an M10 screw for the suspension bolt (field supply).
 2. Keep the service space for maintenance at the bottom.
 3. This drawing is for 24·30·36·42 KBTU/H models, which have 2 fans.
 09·12·15·18 KBTU/H models have 1 fan.
 4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
 5. Heat air to 0°C (32°F) or higher when taking fresh air with a fresh air intake.



Unit:mm(in.)

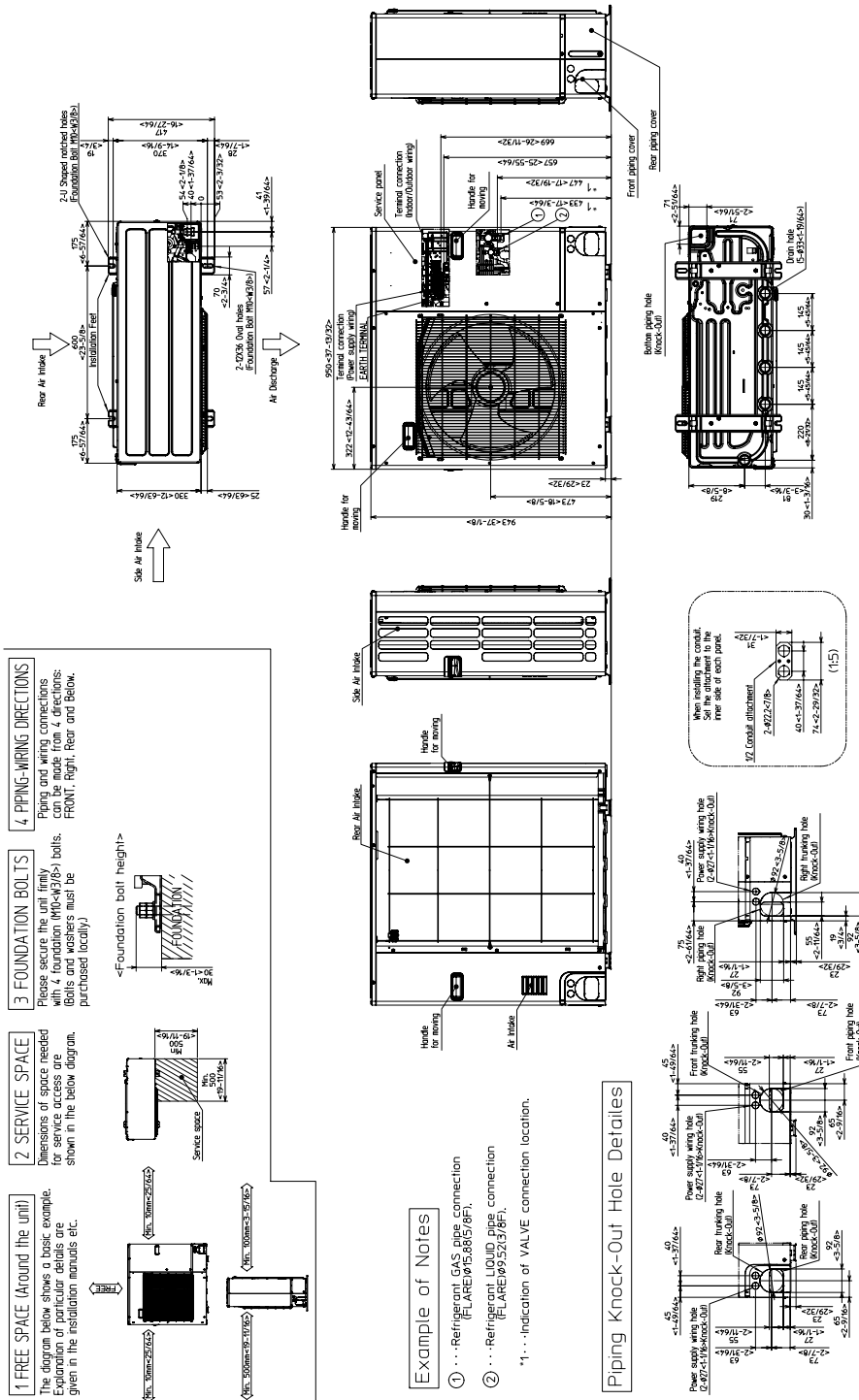
Model	J	1 Gas pipe	2 Liquid pipe
09 KBTU/H	62 (2-1/2)	ø9.52 (3/8)	ø6.35 (1/4)
12, 15, 18 KBTU/H	62 (2-1/2)	ø12.7 (1/2)	ø6.35 (1/4)
24, 30 KBTU/H	66 (2-5/8)	ø15.88 (5/8)	ø9.52 (3/8)
36, 42 KBTU/H			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
09, 12, 15, 18 KBTU/H	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
24, 30 KBTU/H	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
36, 42 KBTU/H	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

OUTDOOR UNIT DIMENSIONS: NTXSKH24A112AA

Unit: mm<in>



**TPEADA0301AA80A & TRUZH0301KA00NA
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
30,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR**



Job Name: **Crossroads Dayton Campus**

System Reference: **HP-6**

Date: **12/06/2023**



Indoor Unit.....TPEADA0301AA80A

Outdoor Unit.....TRUZH0301KA00NA

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 70 ft.
- High pressure/temperature protection
- Built-in base pan heater
- Flash injection circuit provides efficient high heating capacities at low ambient temperatures

SPECIFICATIONS: TPEADA0301AA80A & TRUZH0301KA00NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	30,000
	Rated Capacity	BTU/H	30,000
	Minimum Capacity	BTU/H	14,600
	Maximum Power Input	W	2,350
	Rated Power Input	W	2,350
	Moisture Removal	Pints/h	6.5
	Sensible Heat Factor		0.76
Heating at 47°F ²	Maximum Capacity	BTU/H	34,000
	Rated Capacity	BTU/H	32,000
	Minimum Capacity	BTU/H	14,800
	Maximum Power Input	W	3,030
	Rated Power Input	W	2,740
	Power Factor [208V / 230V]	%	90.0 / 90.0
Heating at 17°F ³	Maximum Capacity	BTU/H	32,000
	Rated Capacity	BTU/H	21,000
	Maximum Power Input	W	4,445
Heating at 5°F ⁴	Rated Power Input	W	2,615
	Maximum Capacity	BTU/H	32,000
Heating at -4°F ⁵	Maximum Power Input	W	4,865
Heating at -13°F ⁷	Maximum Capacity	BTU/H	28,700
Efficiency	Maximum Capacity	BTU/H	25,600
	SEER SEER2		18.1 17.4
	EER ¹ EER2 ¹		12.7 12.1
	HSPF [IV] HSPF2 [IV]		9.6 8.3
	COP at 47°F ²		3.4
	COP at 17°F at Maximum Capacity ³		2.1
	COP at 5°F at Maximum Capacity ⁴		1.9
ENERGY STAR® Certified		Yes	
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	35
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Power Supply		Indoor unit is powered by the outdoor unit	
Indoor Unit	MCA	A	2.3
	Fan Motor Full Load Amperage	A	1.84
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	618–742–883
	Airflow Rate at Cooling, Wet	CFM	556–668–795
	Airflow Rate at Heating, Dry	CFM	618–742–883
	Sound Pressure Level [Cooling]	dB[A]	30–34–39
	Sound Pressure Level [Heating]	dB[A]	30–34–39
	External Static Pressure	in.WG	0.14–0.2–0.28–0.4–0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250]
Package Dimensions	W x D x H: In. [mm]	53-15/16 x 35-7/16 x 13 [1,370 x 900 x 330]	
Unit Weight	Lbs. [kg]	67 [30]	
Package Weight	Lbs. [kg]	80 [36]	
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

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

Conditions

⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
⁵ Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
⁷ Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

SPECIFICATIONS: TPEADA0301AA80A & TRUZH0301KA00NA

Outdoor Unit	MCA	A	24.0
	MOCP	A	40
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	3880 / 3880
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		ANB33FJMMT
	Compressor Rated Load Amps	A	18
	Compressor Locked Rotor Amps	A	27.5
	Compressor Oil [Type // Charge]	oz.	FV50S // 1.4,47
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	41-5/16 x 14-3/16 x 52-11/16 [1050 x 360 x 1338]
	Package Dimensions	W x D x H: In. [mm]	43 x 18 x 57 [1110 x 480 x 1440]
Unit Weight	Lbs. [kg]	261 [118]	
Package Weight	Lbs. [kg]	285 [129]	
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -13 DB, -13 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	11.0, 7.0
	Maximum Pre-Charged Piping Length	Ft. [m]	100.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	.7 [56]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	3/8 [9.52]
	Maximum Piping Length	Ft. [m]	245 [75]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

⁵Heating at -4°F (Indoor // Outdoor) °F 70 DB, 60 WB // -4 DB, -5 WB

⁷Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

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

- Wind baffles required to operate below 23°F DB in cooling mode.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

INDOOR UNIT ACCESSORIES: TPEADA0301AA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
Remote Sensor	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
Wired Remote Controller	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
Wireless Remote Controller	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
Condensate	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
Control Wire	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	<input type="checkbox"/> CW2042S2-100
Disconnect Switch	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	<input type="checkbox"/> CW2042S2-500
	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
Filter Box	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-3-A
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65

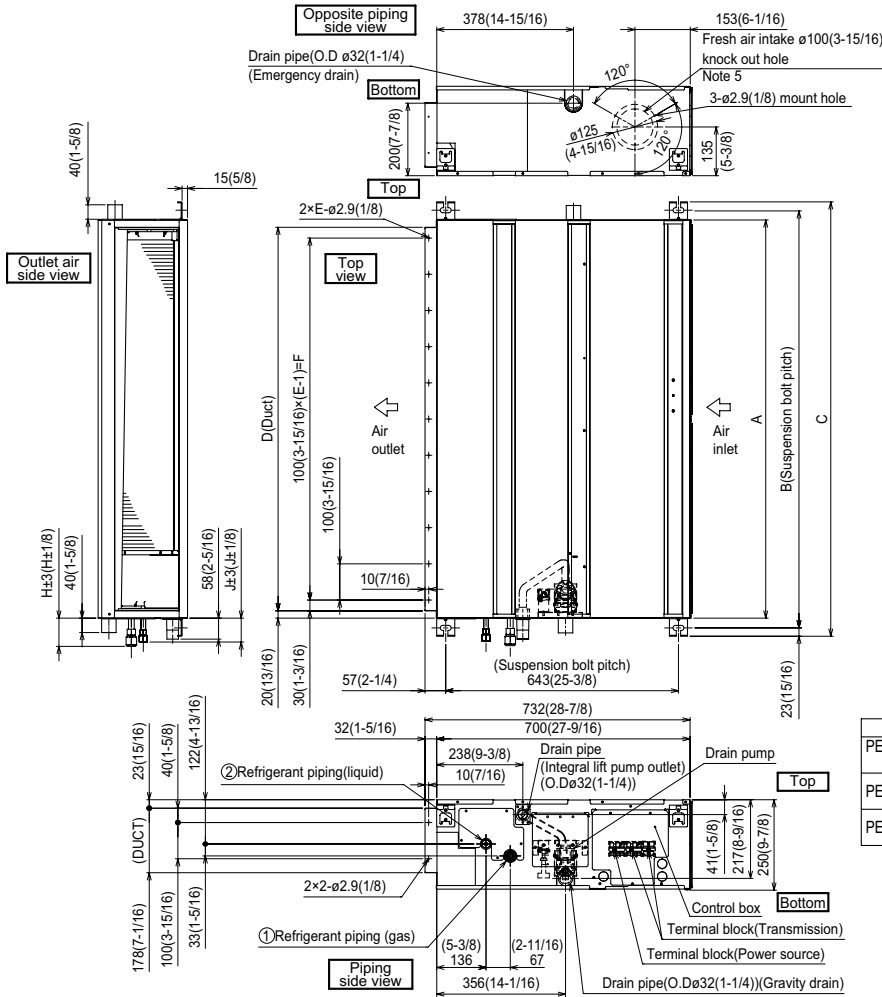
NOTES:

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

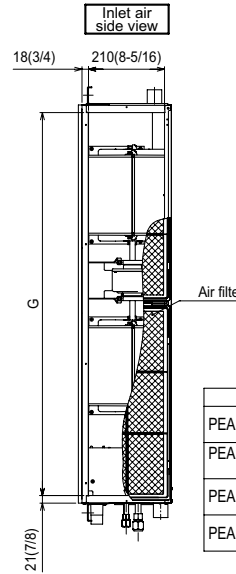
OUTDOOR UNIT ACCESSORIES: TRUZH0301KA00NA

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

INDOOR UNIT DIMENSIONS: TPEADA0301AA80A



- Notes
1. Use an M10 screw for the suspension bolt (field supply).
 2. Keep the service space for maintenance at the bottom.
 3. This drawing is for PEAD-A09-12-15-18-24-30AA8 models, which have 2 fans. PEAD-A36AA8 model has 3 fans.
 4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
 5. Heat air to 0°C (32°F) or higher when taking fresh air with a fresh air intake.



Unit:mm(in.)

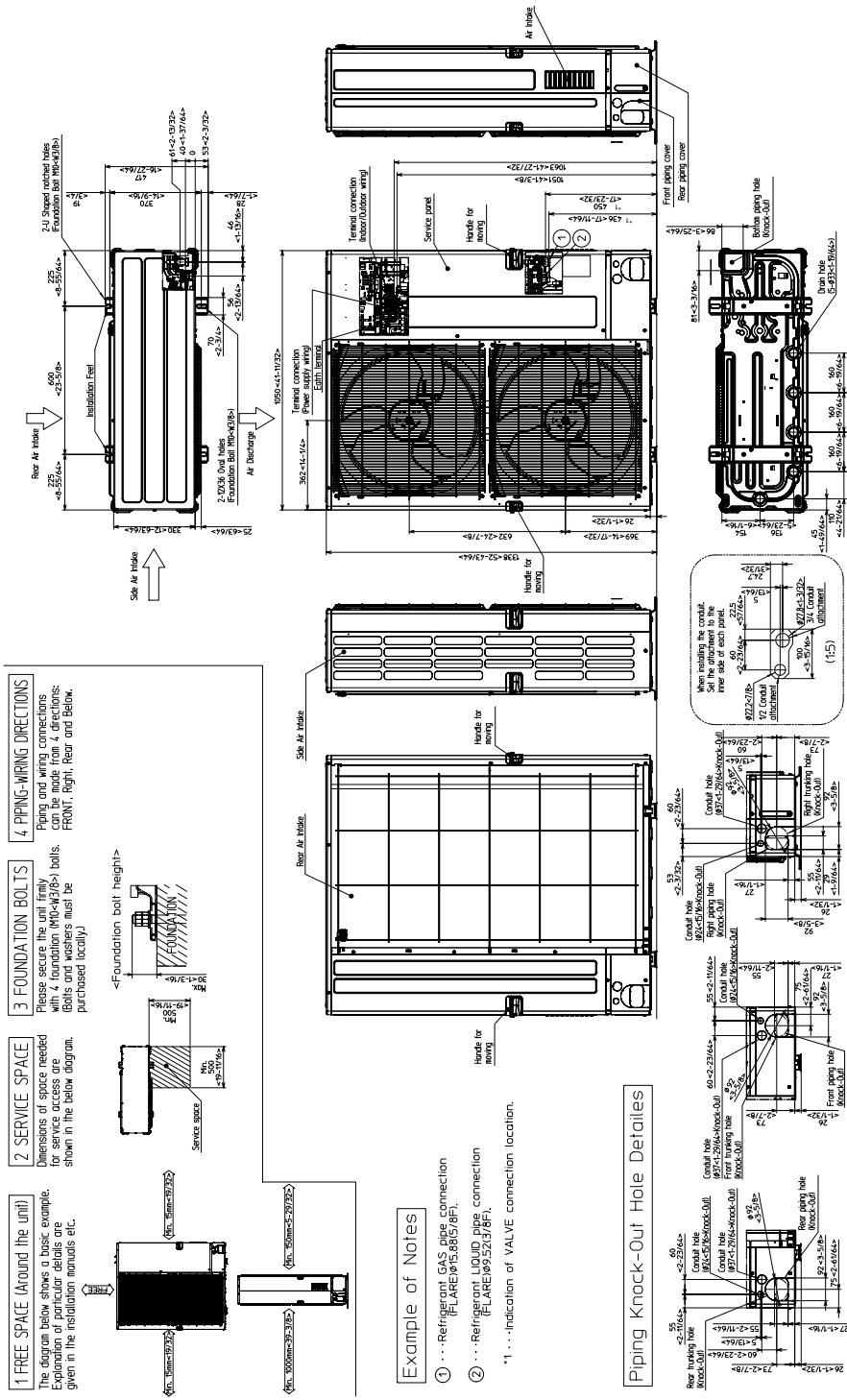
Model	J	①Gas pipe	②Liquid pipe
PEAD-A09AA8	62 (2-1/2)	$\phi 9.52$ (3/8)	$\phi 6.35$ (1/4)
PEAD-A12,15,18AA8	62 (2-1/2)	$\phi 12.7$ (1/2)	$\phi 6.35$ (1/4)
PEAD-A24,30AA8	66 (2-5/8)	$\phi 15.88$ (5/8)	$\phi 9.52$ (3/8)
PEAD-A36AA8			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
PEAD-A09,12,15,18AA8	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24,30AA8	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36AA8	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

OUTDOOR UNIT DIMENSIONS: TRUZH0301KA00NA

Unit: mm<in>



- 1 FREE SPACE (Around the unit)**
The diagram below shows a basic example. Expansion of the unit details are given in the installation manuals etc.
- 2 SERVICE SPACE**
Dimensions of spaces needed for service are shown in the below diagram.
- 3 FOUNDATION BOLTS**
Please ensure the unit firmly sits on foundation with 4 foundation bolts. Bolts and washers must be purchased locally!
- 4 PIPING-WIRING DIRECTIONS**
Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.

Example of Notes

- ① ... Refrigerant GAS pipe connection (FLARE) 94S88578F1.
- ② ... Refrigerant LIQUID pipe connection (FLARE) 94S2578F1.
- *1 ... Indication of VALVE connection location.



TPLA0A0361EA80A & TRUYA0361KA70NA
36,000 BTU/H 3' X 3' CEILING CASSETTE
36,000 BTU/H COOLING ONLY OUTDOOR



Job Name: **Crossroads Dayton Campus**

System Reference: **CU-2A, CU-2B**

Date: **12/06/2023**



Indoor Unit.....TPLA0A0361EA80A

Outdoor Unit.....TRUYA0361KA70NA

INDOOR UNIT FEATURES

- Space-efficient ductless installation
- Equipped with 3D i-see Sensor® for enhanced comfort and energy efficiency
- Airflow settings for high and low ceiling applications
- Individual vane settings for direct/indirect airflow control or variable airflow patterns
- Knockouts for outside-air intake and branch-duct run
- Filter indicator signal
- Easy-to-clean, washable filter (optional high-efficiency filter available - requires multi-function casement)
- Built-in condensate lift mechanism
- Ideal for retail shops, classrooms, office spaces, conference centers, building lobbies, and more
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 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

SPECIFICATIONS: TPLA0A0361EA80A & TRUYA0361KA70NA

Cooling at 95°F ¹	Maximum Capacity	BTU/H	36,000
	Rated Capacity	BTU/H	36,000
	Minimum Capacity	BTU/H	16,000
	Maximum Power Input	W	2,780
	Rated Power Input	W	2,780
	Moisture Removal	Pints/h	4.5
	Sensible Heat Factor		0.86
	Power Factor [208V / 230V]	%	93.7 / 93.7
Efficiency	SEER2		—
	EER2 ¹		—
	HSPF2 [IV]		—
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	30
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	2.0
	Fan Motor Full Load Amperage	A	0.56
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	670–850–1,020–1,200
	Airflow Rate at Cooling, Wet	CFM	630–810–980–1,160
	Sound Pressure Level [Cooling]	dB[A]	32–37–41–44
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	33-7/16 [850]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 6.4Y 8.9/0.4
	Unit Dimensions	W x D x H: In. [mm]	33-1/16 x 33-1/16 x 11-3/4 [840 x 840 x 298]
	Package Dimensions	W x D x H: In. [mm]	34-19/64 x 35-35/64 x 16-37/64 [871 x 903 x 421]
	Unit Weight	Lbs. [kg]	57 [26]
	Package Weight	Lbs. [kg]	89 [40]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 66 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) ¹Cooling (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 12U*****

SPECIFICATIONS: TPLA0A0361EA80A & TRUYA0361KA70NA

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) ¹Cooling (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.
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INDOOR UNIT ACCESSORIES: TPLA0A0361EA80A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEFACECB
	Airzone ZBS Wired Blueface Principal Controller White	<input type="checkbox"/> AZZBSBLUEZEROCB
	Airzone ZBS Wired Lite Controller White	<input type="checkbox"/> AZZBSLITECB
	Airzone ZBS Wireless Lite Controller White	<input type="checkbox"/> AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	<input type="checkbox"/> AZZBSTHINKRB
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	Remote Operation Adapter†	<input type="checkbox"/> PAC-SF40RM-E
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
	USNAP Adapter	<input type="checkbox"/> PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAAU
	Simple Ductless Wired Remote Controller	<input type="checkbox"/> PAC-SDW01RC-1
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Lockdown bracket for remote controller	<input type="checkbox"/> RCMKP1CB
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
	Wireless Remote Controller	<input type="checkbox"/> PAR-SL101A-E
Casement	Wireless Signal Receiver Panel	<input type="checkbox"/> PAR-SR4LU-E
	Multi-function Casement	<input type="checkbox"/> PAC-SJ41TM-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	<input type="checkbox"/> TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	<input type="checkbox"/> TAZ-MS303W
Filter	High Efficiency Filter Element**	<input type="checkbox"/> PAC-SH59KF-E
i-see Sensor® Panel	Grille with 3D i-see Sensor® (required)	<input checked="" type="checkbox"/> TLP-41EAEU
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	<input type="checkbox"/> MPLS385812T-65
Shutter Plate	Shutter Plate	<input type="checkbox"/> PAC-SJ37SP-E
Space Panel	Space Panel	<input type="checkbox"/> PAC-SJ38AS-E

NOTES:

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

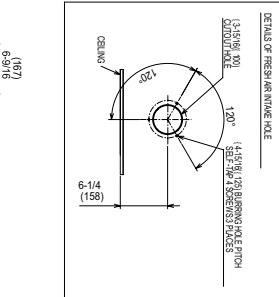
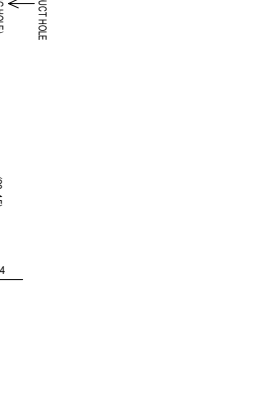
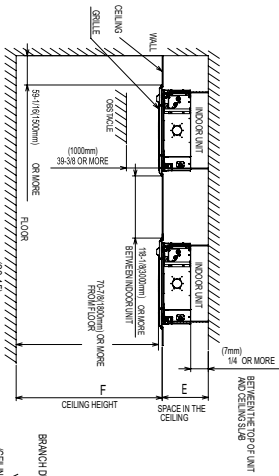
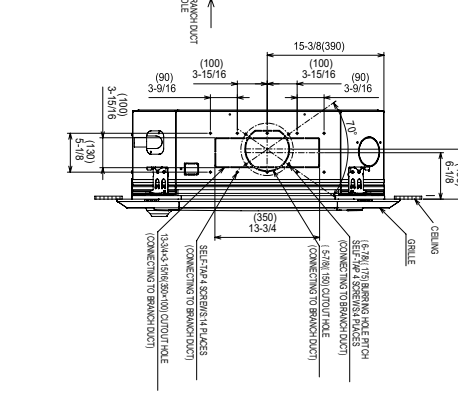
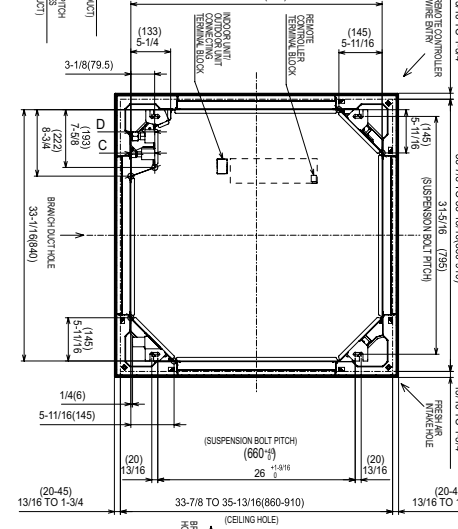
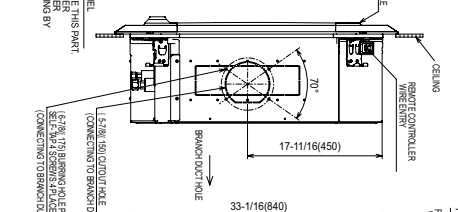
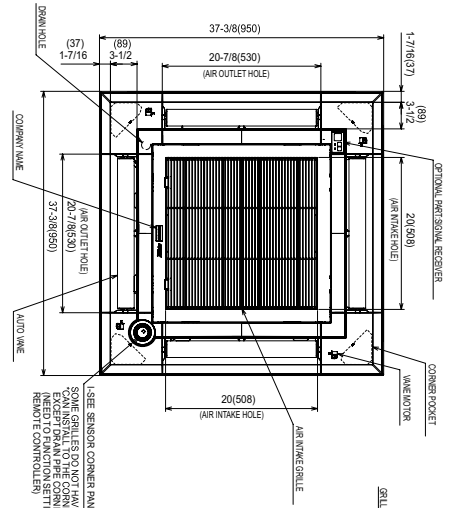
OUTDOOR UNIT ACCESSORIES: TRUYA0361KA70NA

Air Outlet Guide	Air Outlet Guide (1 Piece)	<input type="checkbox"/> PAC-SH96SG-E (two pieces are required)
Control/Service Tool	Control/Service Tool	<input type="checkbox"/> PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	<input type="checkbox"/> M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	<input type="checkbox"/> M21EC1397
M-NET Converter	M-NET Converter	<input type="checkbox"/> PAC-SJ85MA-E
	M-NET Converter	<input type="checkbox"/> PAC-SJ95MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
Stand	18" Dual Fan Stand	<input type="checkbox"/> QSMS1802M
	24" Dual Fan Stand	<input type="checkbox"/> QSMS2402M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1202M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA3 (two pieces are required)
	Rear Wind Baffle	<input type="checkbox"/> WB-RE6
	Side Advanced Wind Baffle	<input type="checkbox"/> WB-SD6

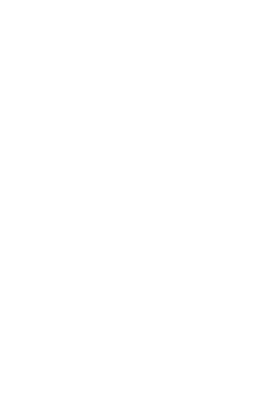
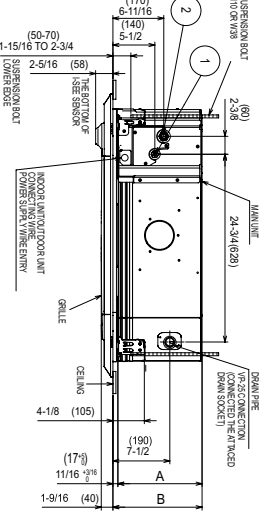
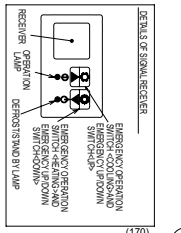
INDOOR UNIT DIMENSIONS: TPLA0A0361EA80A

Unit: inch (mm)

1. CHECK THE GRILLE AMONG THE DEDICATED GRILLES.
2. REINFORCE THE SUSPENSION BOLT FOR EARTHQUAKE-RESISTANCE AS NEEDED.
3. PROCEED TO THE LOCAL SITE.
4. FOR DRAIN PIPE, USE VP-2910D, H-14111 (20" PVC TUBE).
5. DRAIN IS MADE BY CONNECTION FROM THE CEILING.
6. ELECTRICAL BOX MAY BE REMOVED FOR THE SERVICE PURPOSE.
7. REQUIRE "E" OR MORE SPACE BETWEEN TRANSOM AND CEILING FOR THE INSTALLATION.
8. WHEN INSTALLING THE BRANCH DUCTS, BE SURE TO INSULATE ADEQUATELY.
9. AS FOR NECESSARY INSTALLATION SERVICE SPACE, PLEASE REFER TO THE MULTIFUNCTIONAL CASEMENT REFER TO SPECIAL DRAWING.

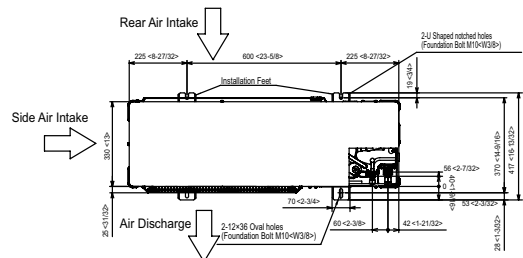
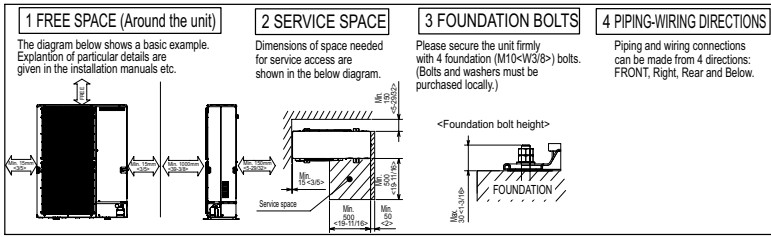


MODELS	①	②	A	B	C	D	E	F
REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY	REGULATORY PRELIMINARY
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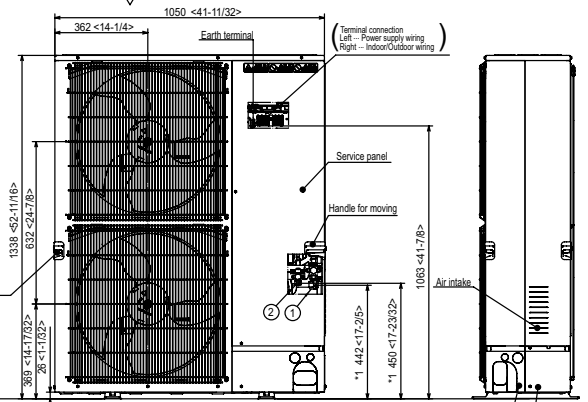
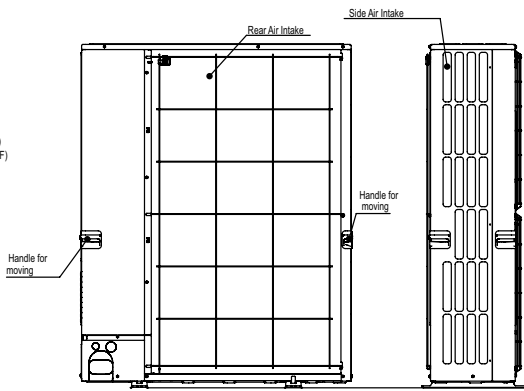
OUTDOOR UNIT DIMENSIONS: TRUYA0361KA70NA

Unit: mm<in>

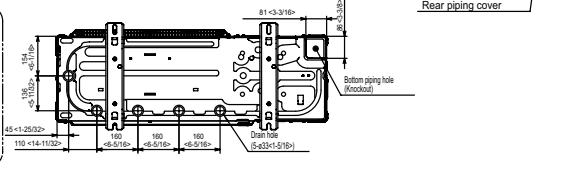
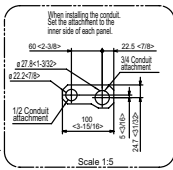
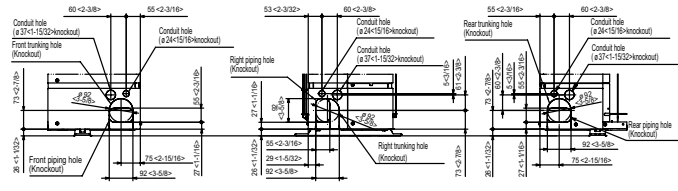


Example of Notes

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



Piping Knockout Hole Details



Submittal Documents

NTXMSH48A182BA
4-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



Job Name: **Crossroads Dayton Campus**
System Reference: **HP-4**

Date: **12/06/2023**



FEATURES

- Compatible with NV- and P-Series and CITY MULTI® indoor units. Branch box required for connection with NV- and P-Series
- Variable speed INVERTER-driven compressor
- Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs in accordance with ASTM B117 testing)
- Thermal Differential 1°F (with TAC-MKA32/52BC only)
- Built-in base pan heater
- Quiet outdoor unit operation, rated sound pressure as low as 51 dB(A)
- High pressure protection
- Compressor thermal protection
- Compressor overcurrent detection
- Fan motor overheating/voltage protection
- Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

Specifications are subject to change without notice.

SPECIFICATIONS: NTXMSH48A182BA

Outdoor unit	Airflow Rate (Cooling / Heating)	CFM	3,885 / 3,885	
	Refrigerant Control		LEV	
	Defrost Method		Reverse Cycle	
	Heat Exchanger Type		Plate fin coil	
	Heat Exchanger Coating		Blue Fin Coating	
	Sound Pressure Level, Cooling ¹	dB(A)	51	
	Sound Pressure Level, Heating ²	dB(A)	54	
	Compressor Type		Hermetic	
	Compressor Model		ANB33FJSMT	
	Compressor Motor Output	kW	3.4	
	Compressor Rated Load Amps	A	19	
	Compressor Locked Rotor Amps	A	22.0	
	Compressor Oil Type // Charge	oz.	FV50S // 73	
	Base Pan Heater		Built-in	
	Unit Dimensions	W: In. [mm]		41-11/32 [1,050]
		D: In. [mm]		13 [330]
		H: In. [mm]		52-11/16 [1,338]
	Package Dimensions	W: In. [mm]		43 [1,090]
		D: In. [mm]		18 [450]
		H: In. [mm]		57 [1,430]
Unit Weight	Lbs.[kg]		278 [126]	
Package Weight	Lbs.[kg]		302 [137]	
Outdoor unit operating temperature range	Cooling Intake Air Temp (Maximum / Minimum) ³	°FDB	115 / 5 ^c	
	Cooling Thermal Lock-out / Re-start Temperatures	°FDB	N/A / N/A	
	Heating Intake Air Temp (Maximum / Minimum)	°FDB	59 / -13	
	Heating Thermal Lock-out / Re-start Temperatures	°FDB	-24 / -14	
Refrigerant	Pre-Charged Refrigerant Amount	Lbs, oz	10.0, 9.0	
Indoor unit connection	Maximum Number of Connected IDU with Branch Box		8 (6) ^A	
	Maximum Number of Connected IDU without Branch Box		12	
	Minimum Connected Capacity with Branch Box		12,000	
	Minimum Connected Capacity without Branch Box		24,000	
	Maximum connected capacity		62,000	
Piping	Liquid Pipe Size O.D. (Flared)	In.[mm]	3/8 [9.52]	
	Gas Pipe Size O.D. (Flared)	In.[mm]	5/8 [15.88]	
	Total Piping Length when using Branch Box	Ft. [m]	492 [150]	
	Total Piping Length without Branch Box	Ft. [m]	984 [300]	
	Maximum Height Difference ^B , ODU above IDU	Ft. [m]	164 [50]	
	Maximum Height Difference ^B , ODU below IDU	Ft. [m]	131 [40]	
	Maximum Height Difference ^B , between branch boxes	Ft. [m]	49 [15]	
	Maximum Height Difference between IDU and IDU without branch box	Ft. [m]	49 [15]	
		Ft. [m]	49 [15]	
	Maximum Piping Length between ODU and Branch Box	Ft. [m]	180 [55]	
	Farthest Piping Length from ODU to IDU with Branch Box	Ft. [m]	262 [80]	
	Farthest Piping Length from ODU to IDU without Branch Box	Ft. [m]	492 [150]	
	Farthest Piping Length after Branch Box	Ft. [m]	82 [25]	
	Total Piping Length between Branch Boxes and IDU	Ft. [m]	311 [95]	
Maximum Number of Bends for IDU		15		

NOTES:

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

Conditions ⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

¹Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

^A when 1 or more PLA-A-EA7 connected

^B Branch box should be placed within the level between the outdoor unit and indoor units

^C 5°F DB - 115°F DB when optional wind baffles are installed

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

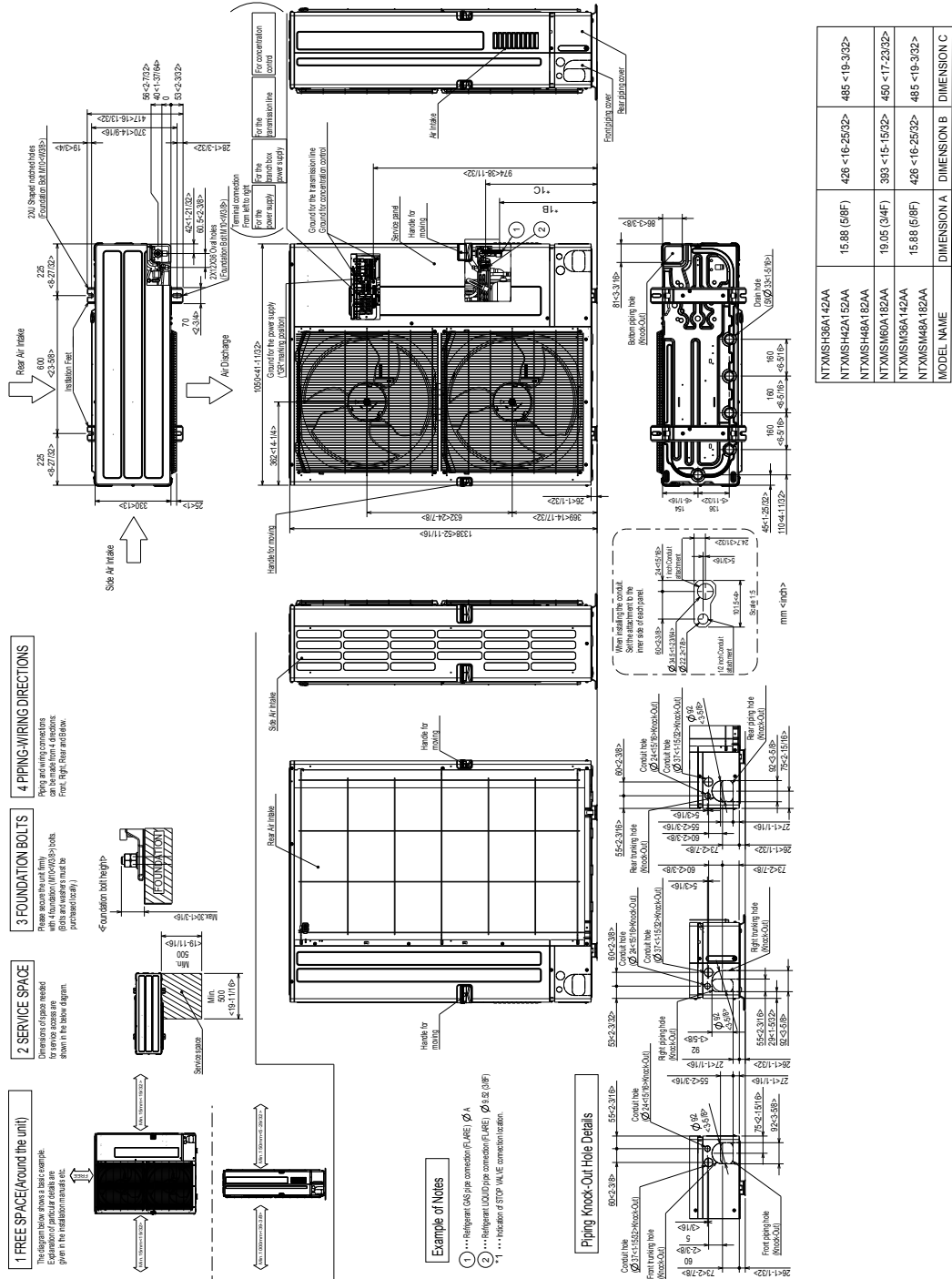
Mid and high external static pressure tests conducted at 0.3 and 0.5 in.w.g. respectively, according to AHRI 210/240. The external static pressures utilized have no bearing on the capabilities of the indoor unit; please refer to the indoor unit manual to select the correct external static pressure setting for the application.

OUTDOOR UNIT ACCESSORIES: NTXMSH48A182BA

Air Deflector	Vertical Air Deflector	<input type="checkbox"/> ADV-1
Air Outlet Guide	Air Outlet Guide (1 Piece)	<input type="checkbox"/> PAC-SH96SG-E (two pieces are required)
Ball Valve	Refrigeration Ball Valve - 1/2"	<input type="checkbox"/> BV12FFSI2
	Refrigeration Ball Valve - 1/4"	<input type="checkbox"/> BV14FFSI2
	Refrigeration Ball Valve - 3/8"	<input type="checkbox"/> BV38FFSI2
	Refrigeration Ball Valve - 5/8"	<input type="checkbox"/> BV58FFSI2
Branch Box	3 Port Branch Box	<input type="checkbox"/> TAC-MKA32BC
	5 Port Branch Box	<input type="checkbox"/> TAC-MKA52BC
	Branch Box Enclosure	<input type="checkbox"/> BBE-1
Centralized Drain Pan	Central Drain Pan	<input type="checkbox"/> PAC-SH97DP-E
Control Wire	M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated)	<input type="checkbox"/> CW162S-1000
	M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated)	<input type="checkbox"/> CW162S-250
Control/Service Tool	Maintenance Tool Interface	<input type="checkbox"/> PAC-USCMS-MN-1
Distribution pipe	Brazed Connection	<input type="checkbox"/> MSDD-50BR-E
	Flare Connection	<input type="checkbox"/> MSDD-50AR-E
Drain Socket	Drain Socket	<input type="checkbox"/> PAC-SG60DS-E
Hail Guards	Hail Guard	<input type="checkbox"/> HG-A2
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	<input type="checkbox"/> SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	<input type="checkbox"/> SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	<input type="checkbox"/> ULTRILITE2
	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	<input type="checkbox"/> DSD-400P
Port Adaptor	Adaptor: 1/2" x 3/8"	<input type="checkbox"/> MAC-A455JP-E
	Adaptor: 1/2" x 5/8"	<input type="checkbox"/> MAC-A456JP-E
	Adaptor: 1/4" x 3/8"	<input type="checkbox"/> PAC-493PI
	Adaptor: 3/8" x 1/2"	<input type="checkbox"/> MAC-A454JP-E
	Adaptor: 3/8" x 5/8"	<input type="checkbox"/> PAC-SG76RJ-E
Stand	18" Dual Fan Stand	<input type="checkbox"/> QSMS1802M
	24" Dual Fan Stand	<input type="checkbox"/> QSMS2402M
	Condenser Wall Bracket	<input type="checkbox"/> QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	<input type="checkbox"/> QSWBSS
	Outdoor Unit Stand — 12" High	<input type="checkbox"/> QSMS1202M
Wind Baffle	Front Wind Baffle	<input type="checkbox"/> WB-PA3 (two pieces are required)

OUTDOOR UNIT DIMENSIONS: NTXMSH48A182BA

Unit: mm
<inch>



Job Name: **Crossroads Dayton Campus**
System Reference: **FC-4**

Date: **12/06/2023**



GENERAL FEATURES

- Dual set point functionality
- Multiple fan speed settings
- Auto fan mode
- 9-7/8" (250mm) high for low ceiling heights
- Built-in condensate lift; lifts to 27-9/16" (700 mm)
- Ducted fan coil supporting multiple configurations for flexible installation

Specifications		System	
Unit Type		TPEFYP048MA144A	
Cooling capacity (Nominal) ¹		BTU/H	48,000
Heating capacity (Nominal) ¹		BTU/H	54,000
Power source		Voltage, Phase, Hertz	208/230V, 1-phase, 60 Hz
Power Consumption	Cooling	kW	0.242
	Heating	kW	0.24
Current	Cooling	A	2.06/1.87
	Heating	A	2.06/1.87
MCA		A	4.38
Maximum Overcurrent Protection (MOCP)		A	15
External finish			Galvanized steel sheet
External Dimensions		In. [mm]	55-1/8 x 28-7/8 x 9-7/8 [1,400 x 732 x 250]
Net weight		Lbs [kg]	86 [39]
Heat exchanger			Cross fin (Aluminum fin and copper tube)
Fan	Type x quantity		Sirocco fan x 3
	External Static pressure	in.WG	0.14, 0.2, 0.28, 0.4, 0.6 factory set to 0.2 In. WG
	Airflow rate	CFM	918-1,112-1,306
	Motor type		DC Motor
	Motor Output	kW	0.3
	Motor FLA	A	3.5
Sound pressure level (Measured in anechoic room)		dB(A)	35-40-44
Air filter			PP Honeycomb fabric
Refrigerant	Type		R410A
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Brazed
	Gas (Low Pressure)	In. [mm]	5/8 [15.88] Brazed
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]

NOTES:
¹Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:
 Cooling | Indoor: 80° F (26.7° C) DB / 67° F (19.4° C) WB; Outdoor 95° F (35° C) DB
 Heating | Indoor: 70° F (21.1° C) DB; Outdoor 47° F (8.3° C) DB / 43° F (6.1° C) WB

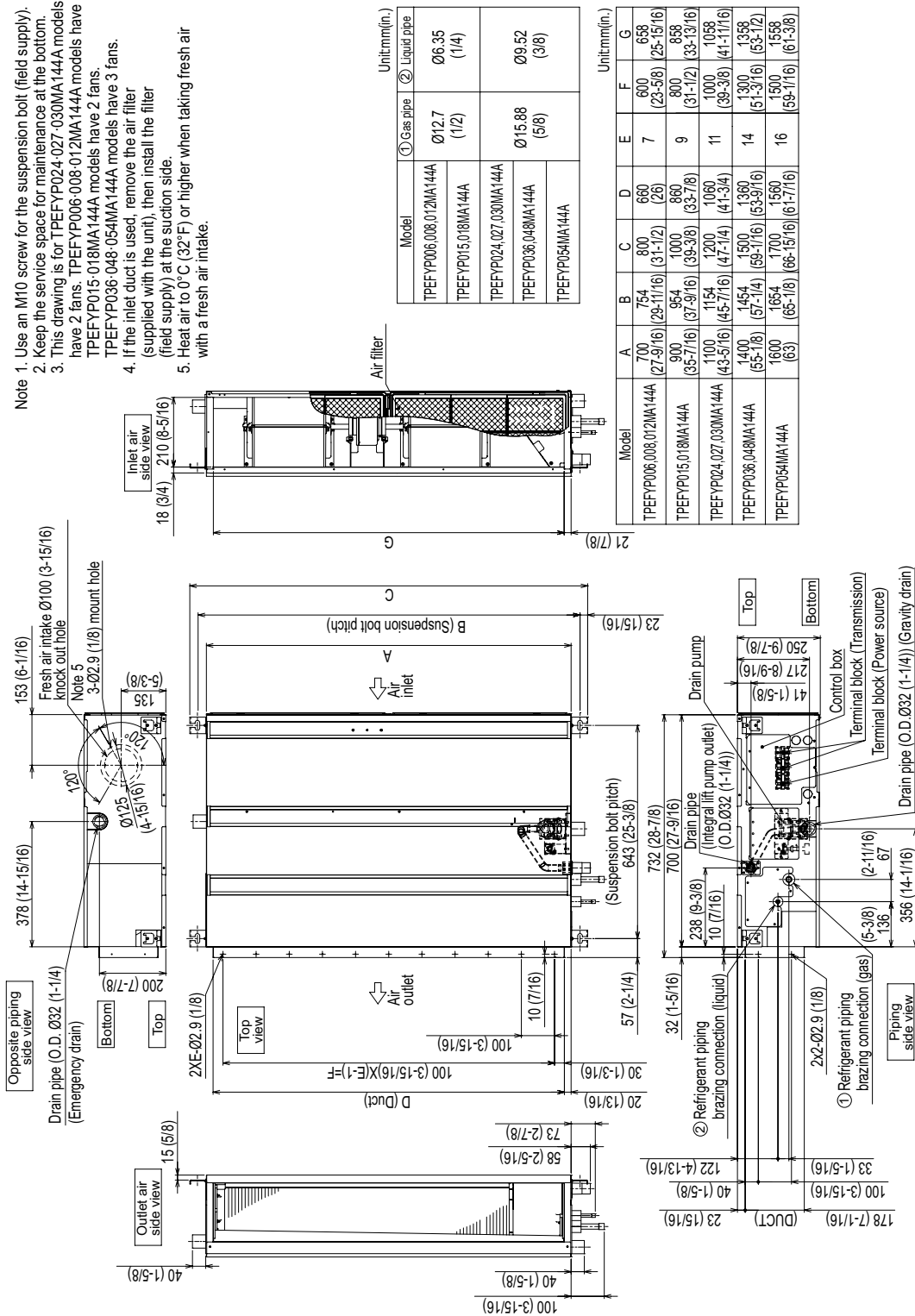
INDOOR UNIT ACCESSORIES: TPEFYP048MA144A

Control Interface	3-Pin Connector	<input type="checkbox"/> PAC-715AD
	BACnet® and Modbus® Interface	<input type="checkbox"/> PAC-UKPRC001-CN-1
	CN24 Relay Kit	<input type="checkbox"/> CN24RELAY-KIT-CM3
	Connector and wire for Operation status/error using CN51	<input type="checkbox"/> PAC-725AD
	IT Extender	<input type="checkbox"/> PAC-WHS01IE-E
	kumo station® for kumo cloud®	<input type="checkbox"/> TAC-WHS01HC-E
	Thermostat Interface	<input type="checkbox"/> PAC-US444CN-1
	Thermostat Interface	<input type="checkbox"/> PAC-US445CN-1
Remote Sensor	Wireless Interface for kumo cloud®	<input type="checkbox"/> PAC-USWHS002-WF-2
	Flush Mount Remote Temperature Sensor	<input type="checkbox"/> PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	<input type="checkbox"/> PAC-USSEN001-FM-1
	Remote Temperature Sensor	<input type="checkbox"/> PAC-SE41TS-E
Terminal Signal Adapter	Wireless temperature and humidity sensor for kumo cloud®	<input type="checkbox"/> PAC-USWHS003-TH-1
	Terminal Signal Adapter	<input type="checkbox"/> PAC-IT51AD-E
Wired Remote Controller	Deluxe Wired MA Remote Controller†	<input type="checkbox"/> TAR-40MAU
	Simple MA Remote Controller†	<input type="checkbox"/> TAC-YT53CRAU-J
	Smart ME Remote Controller - Backlit touchscreen	<input type="checkbox"/> TAR-U01MEDU-K
	Touch MA Controller†	<input type="checkbox"/> TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	<input type="checkbox"/> MHK2
	Wireless MA Receiver	<input type="checkbox"/> PAR-SR32MA-E
	Wireless MA Remote Controller	<input type="checkbox"/> TAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	<input type="checkbox"/> X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	<input type="checkbox"/> X87-835
	Blue Diamond MultiTank — collection tank for use with multiple pumps	<input type="checkbox"/> C21-014
	Blue Diamond Sensor Extension Cable — 15 Ft.	<input type="checkbox"/> C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	<input type="checkbox"/> COMBI
	Sauermann Condensate Pump	<input type="checkbox"/> SI30-230
Filter Box	Filter Box with MERV 13 Filter	<input type="checkbox"/> FBM2-4-A
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)††	<input type="checkbox"/> MPLS385812T-65

INDOOR UNIT DIMENSIONS: TPEFYP048MA144A

Unit : mm(in.)

- Note 1. Use an M10 screw for the suspension bolt (field supply).
2. Keep the service space for maintenance at the bottom.
3. This drawing is for TPEFYP024-027-030MA144A models, which have 2 fans. TPEFYP006-008-012MA144A models have 1 fan. TPEFYP015-018MA144A models have 2 fans. TPEFYP036-048-054MA144A models have 3 fans.
4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
5. Heat air to 0°C (32°F) or higher when taking fresh air with a fresh air intake.



Model	① Gas pipe	② Liquid pipe	Unit:mm(in.)
TPEFYP006,008,012MA144A	Ø12.7 (1/2)	Ø6.35 (1/4)	
TPEFYP015,018MA144A			
TPEFYP024,027,030MA144A			
TPEFYP036,048MA144A	Ø15.88 (5/8)	Ø9.52 (3/8)	
TPEFYP054MA144A			

Model	A	B	C	D	E	F	G	Unit:mm(in.)
TPEFYP006,008,012MA144A	700 (27-9/16)	764 (29-11/16)	800 (31-1/2)	660 (26)	7	600 (23-5/8)	658 (25-15/16)	
TPEFYP015,018MA144A	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	
TPEFYP024,027,030MA144A	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	
TPEFYP036,048MA144A	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	
TPEFYP054MA144A	1600 (63)	1654 (65-1/8)	1700 (66-15/16)	1560 (61-7/16)	16	1500 (59-1/16)	1558 (61-3/8)	

FBM Series Filter Boxes

Manufactured for MITSUBISHI ELECTRIC US, INC.
CITY MULTI® TPEFYP***MA144A and Nv-P TPEAD Medium-Static Indoor Units



Job Name: **Crossroads Dayton Campus**

System Reference: **Filter boxes for ducted indoor units**

Date: **12/06/2023**

PRODUCT OVERVIEW

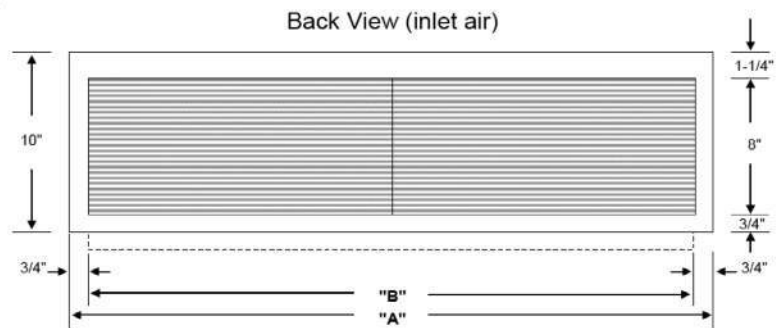
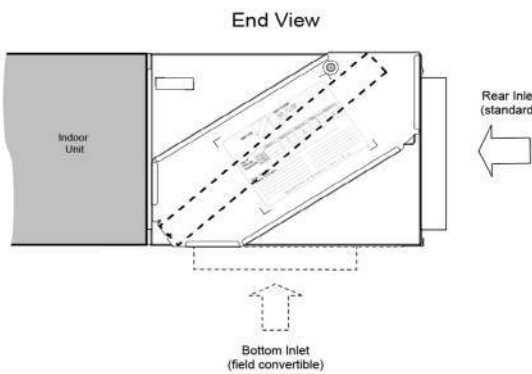


FBM

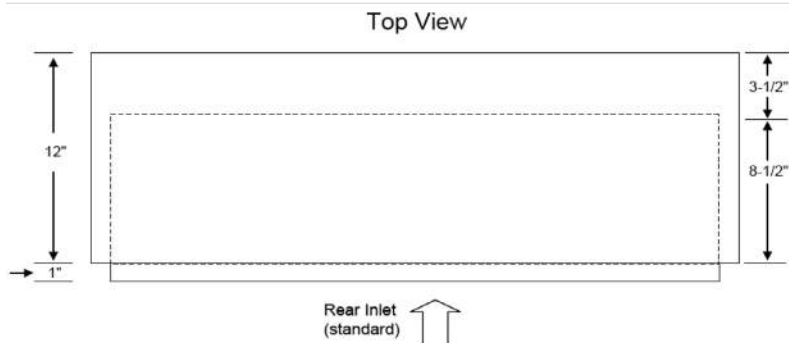
- FBM filter boxes include 2" thick pleated MERV 13 filter(s) installed
 - Rated MERV 13 when tested in accordance with ANSI/ASHRAE 52.2 Standard
 - Rated Class 2 under UL Standard 900
- Low static loss design
- Cabinet is constructed of non-insulated G-60 galvanized steel
- Knurled thumb screws on access door allow easy filter replacement
- Cabinet may be inverted to locate access from other side
- Foam gasket provides airtight connection to indoor unit and access door
- Gasket material complies with UL 723 requirements
- Screw-through cabinet design for secure attachment to indoor unit
- Return connection in rear easily field converted to bottom return
- Filter access door includes area to record maintenance schedule

Part Number	Used on CITY MULTI® Models	Used on Nv- and P-Series Ducted Models	Filters Included	Net Weight lbs.
FBM2-1-A	TPEFYP006, 8, 12	—	(1) - 14" x 25" x 2"	20
FBM2-2-A	TPEFYP015, 18	TPEADA009, 12, 15, 18	(1) - 14" x 20" x 2" (1) - 14" x 14" x 2"	24
FBM2-3-A	TPEFYP024, 27, 30	TPEADA0024, 30	(2) - 14" x 20" x 2"	29
FBM2-4-A	TPEFYP036, 48	TPEADA0036, 42	(2) - 14" x 20" x 2" (1) - 14" x 14" x 2"	35
FBM2-5-A	TPEFYP054	—	(3) - 14" x 20" x 2"	37

FBM DIMENSIONS

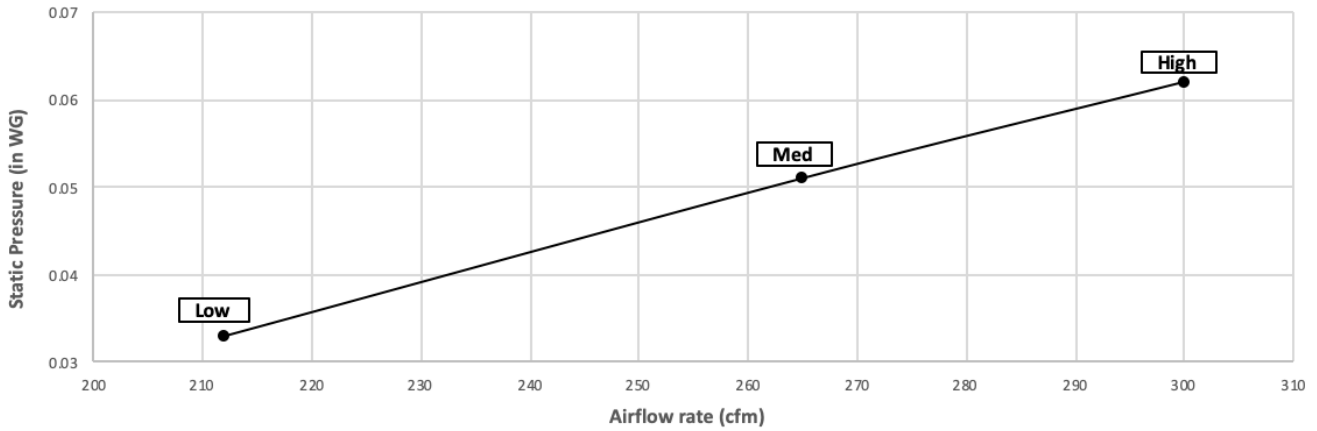


Part Number	"A"	"B"
FBM2-1-A	27 - 5/8"	26"
FBM2-2-A	35 - 1/2"	34"
FBM2-3-A	43 - 3/8"	42"
FBM2-4-A	55 - 1/8"	53 - 5/8"
FBM2-5-A	63"	61 - 1/2"

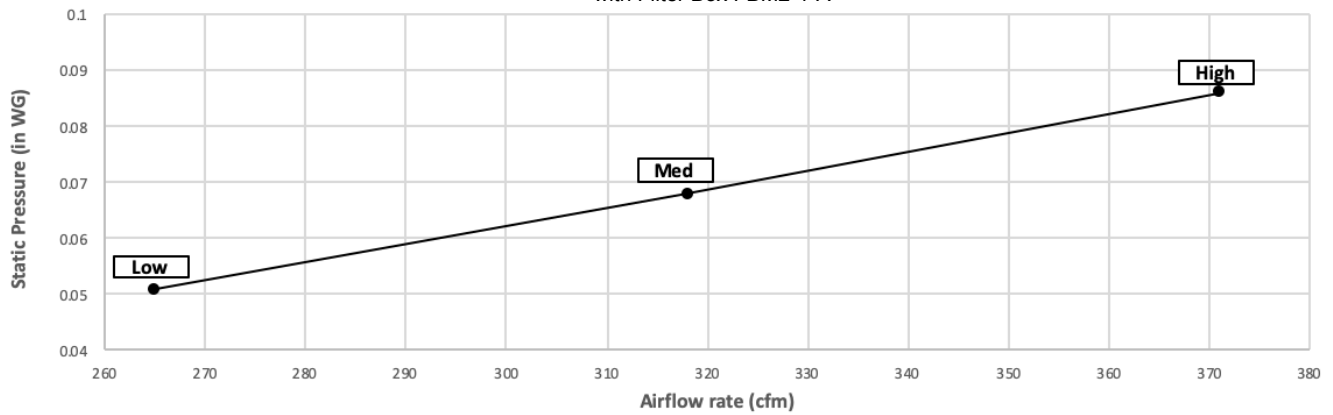


Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed

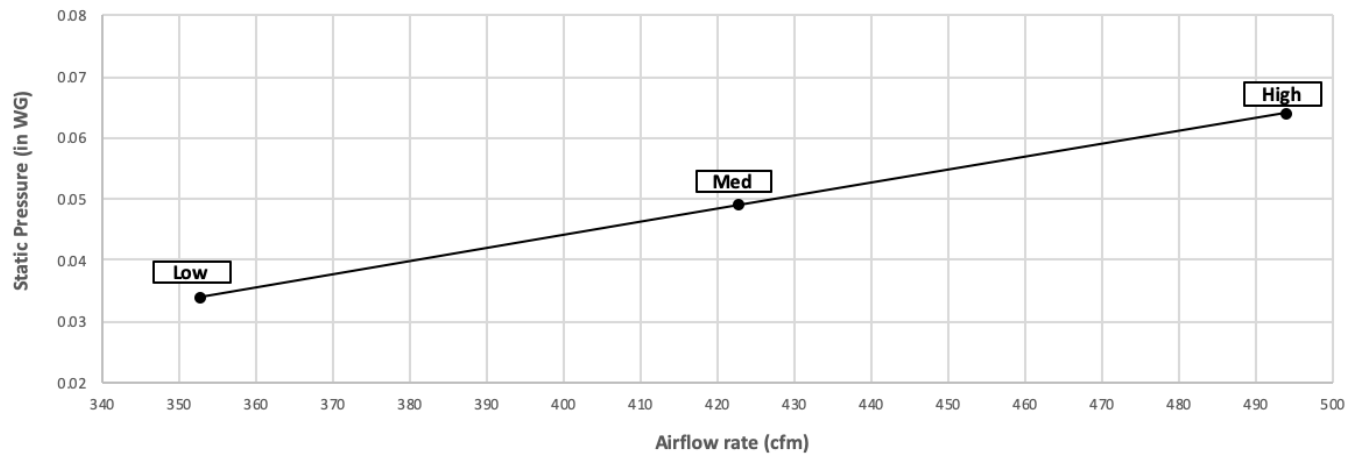
TPEFYP006, 008MA144A
with Filter Box FBM2-1-A



TPEFYP012MA144A
with Filter Box FBM2-1-A

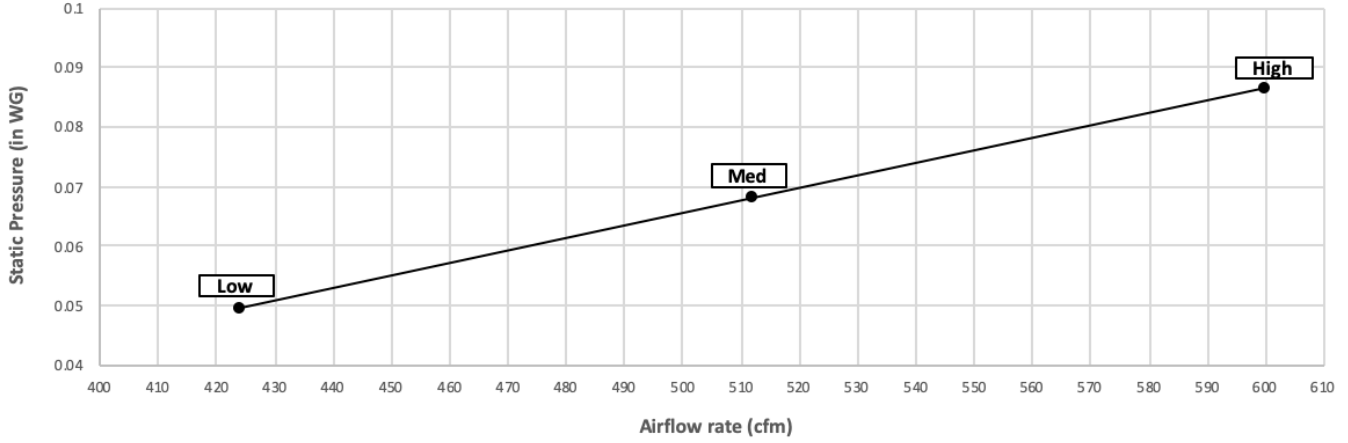


TPEFYP015MA144A
with Filter Box FBM2-2-A

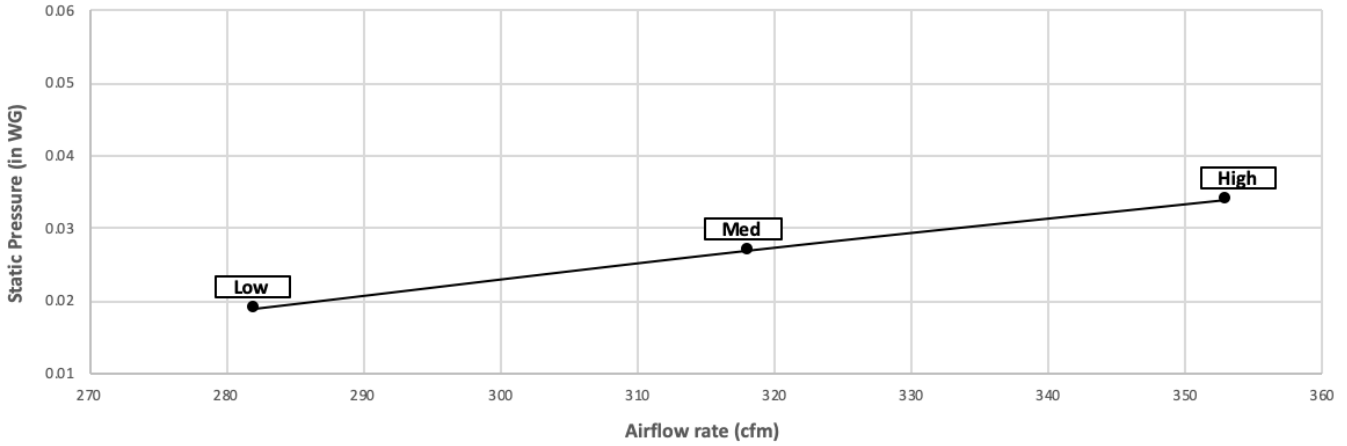


Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.

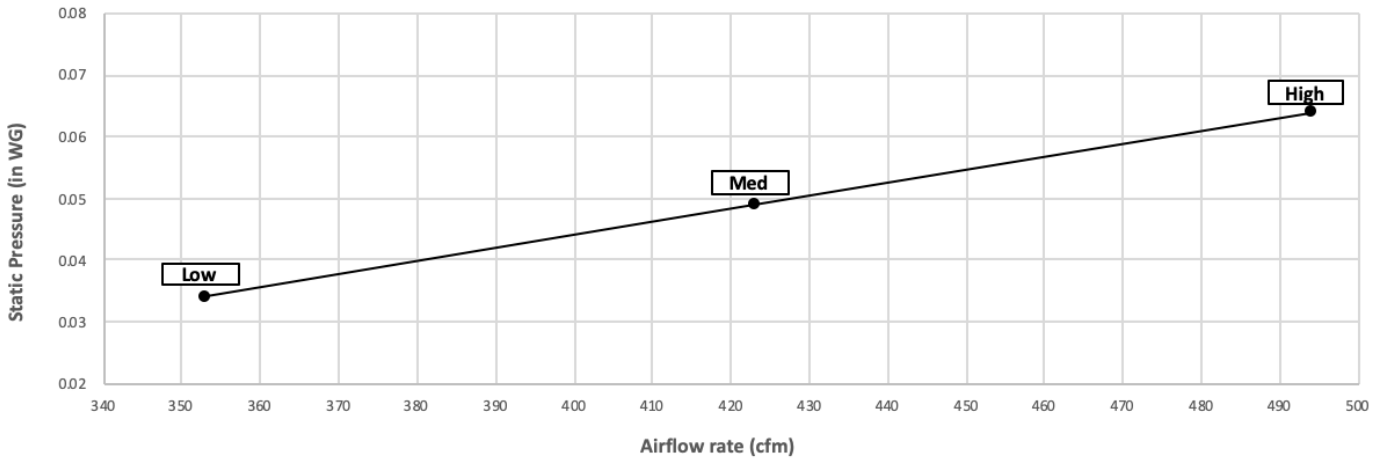
TPEFYP018MA144A
with Filter Box FBM2-2-A



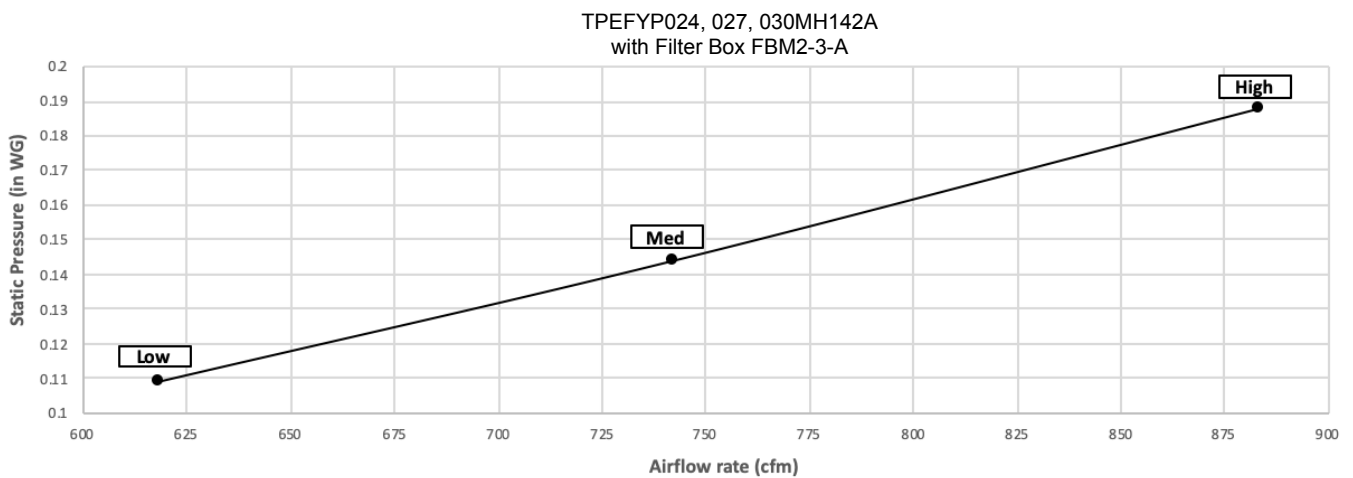
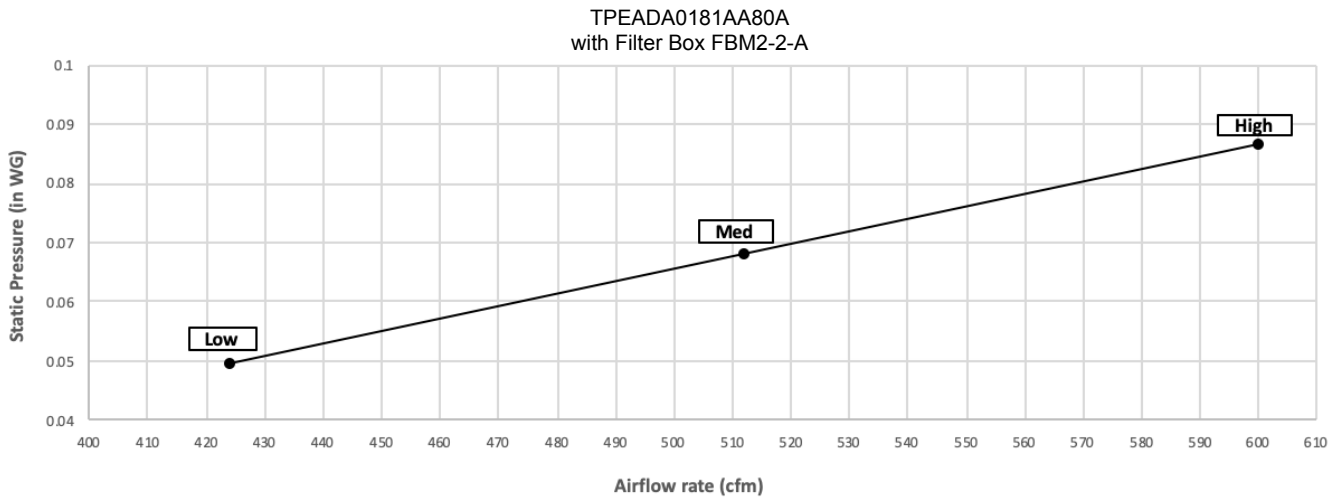
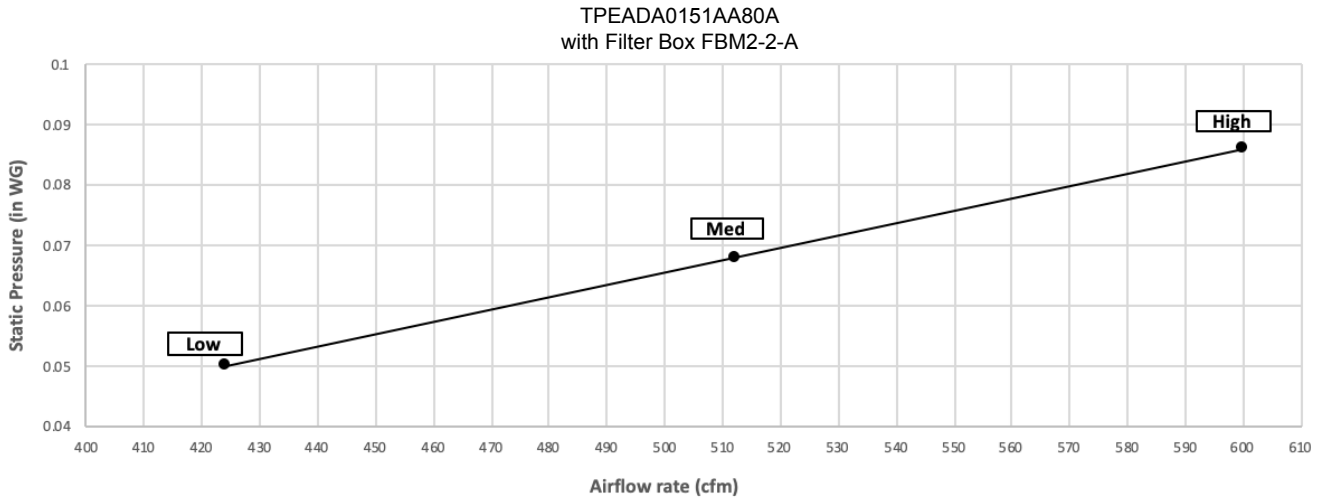
TPEADA0091AA80A
with Filter Box FBM2-2-A



TPEADA0121AA80A
with Filter Box FBM2-2-A

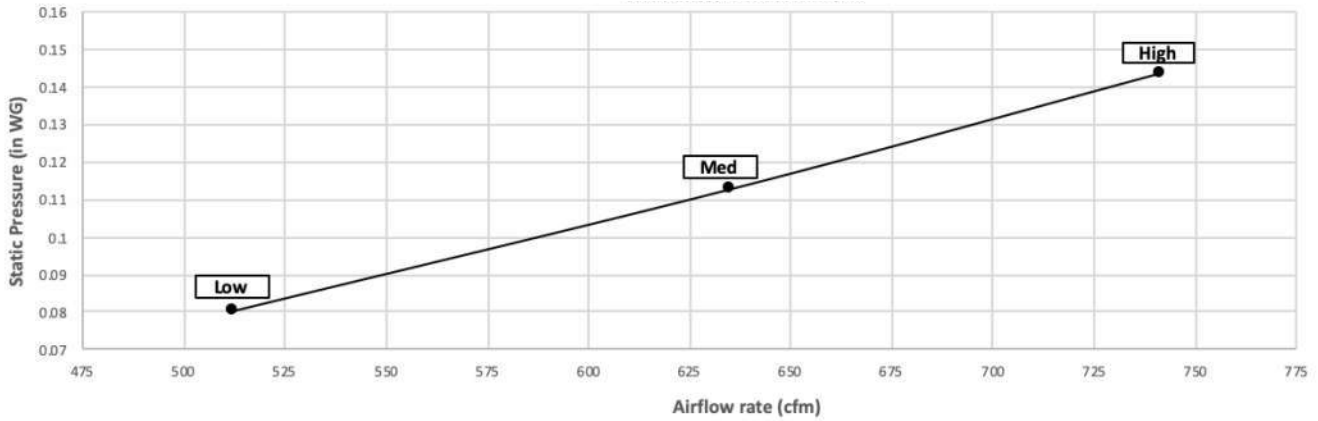


Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.

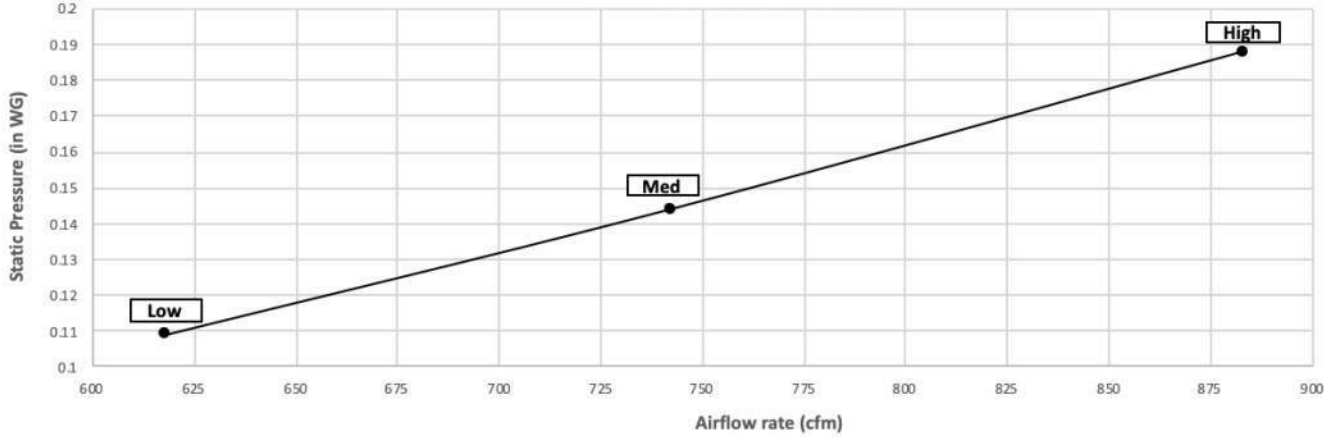


Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.

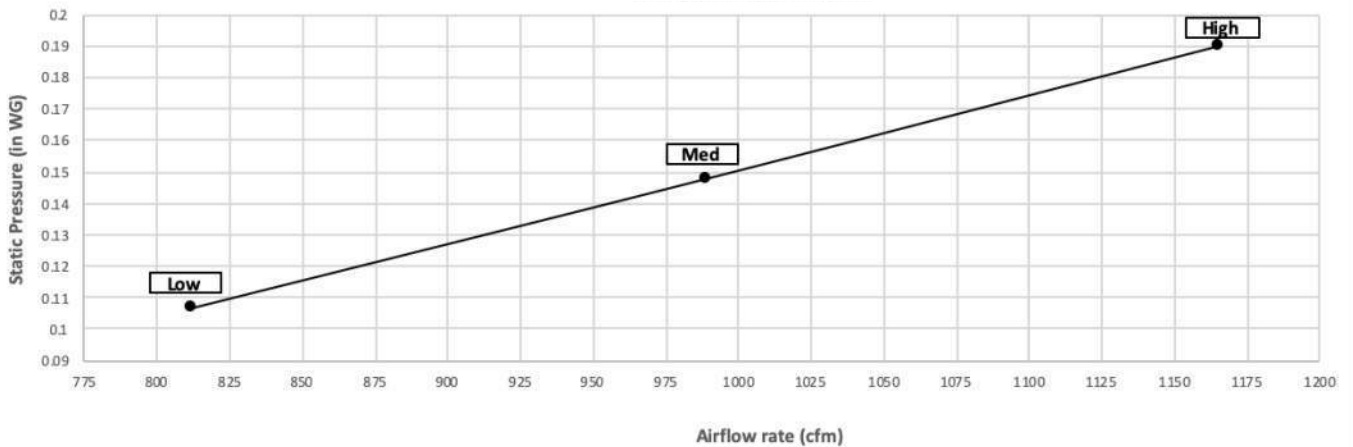
TPEADA0241AA80A
with Filter Box FBM2-3-A



TPEADA0301AA80A
with Filter Box FBM2-3-A

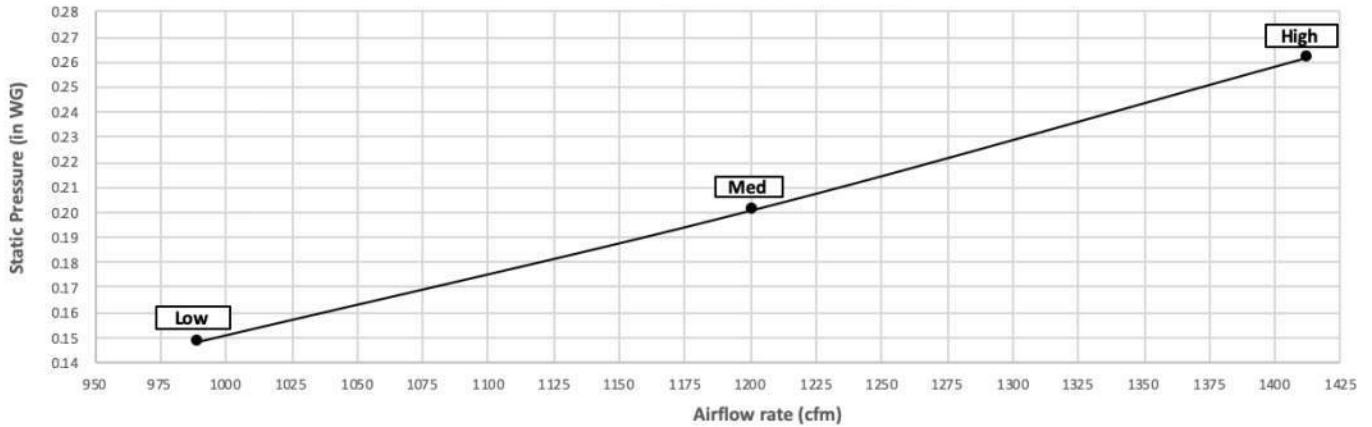


TPEFYP036MH142A
with Filter Box FBM2-4-A

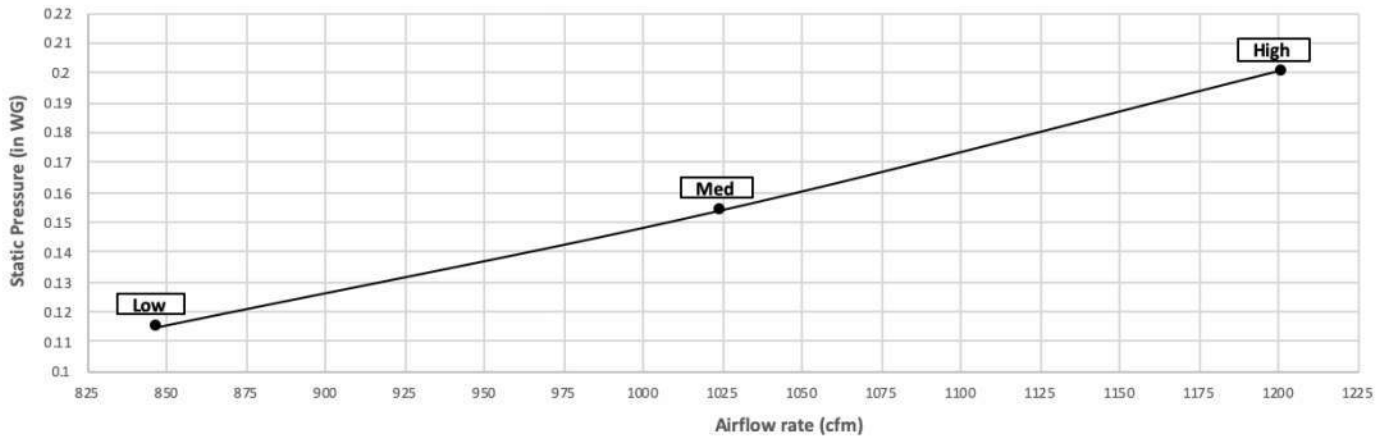


Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.

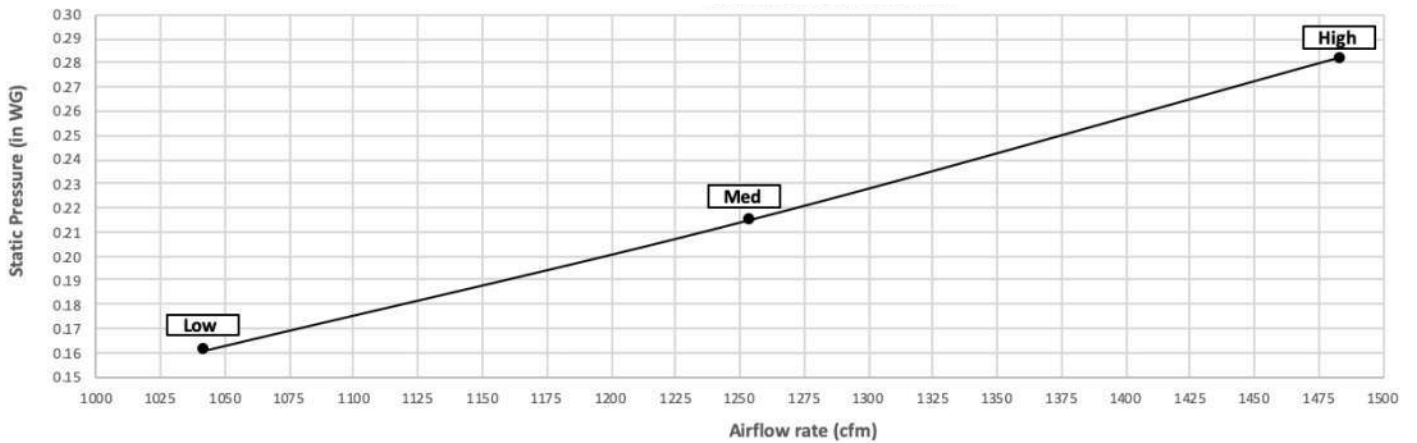
TPEFYP048MA144A
with Filter Box FBM2-4-A



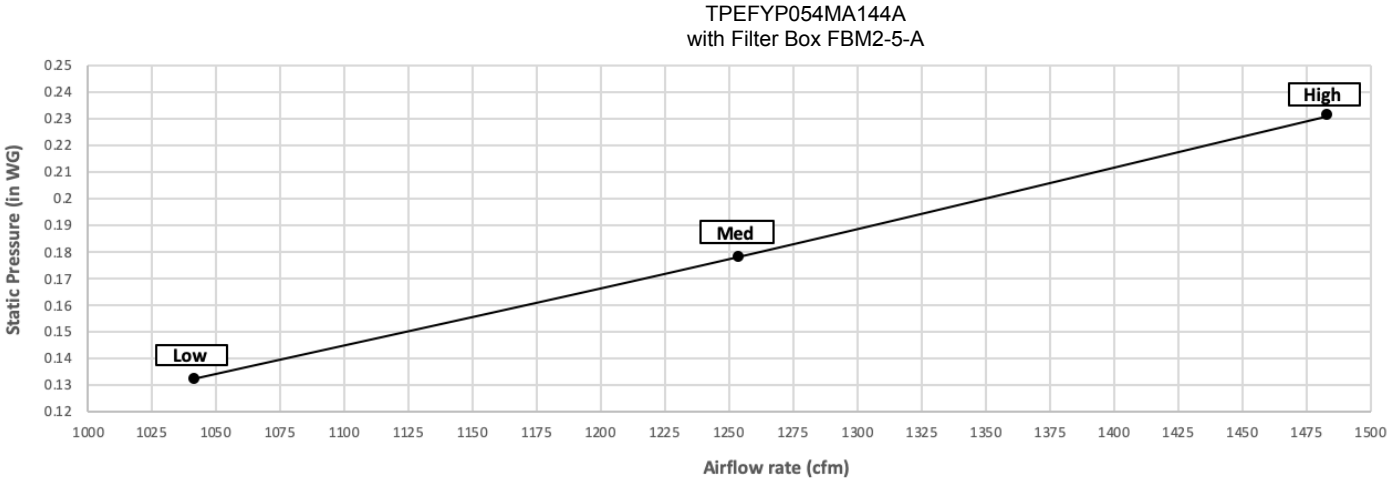
TPEADA0361AA80A
with Filter Box FBM2-4-A



TPEADA0421AA70A
with Filter Box FBM2-4-A



Initial Filter Pressure Drop with 2" MERV 13 Filter(s) Installed, contd.



WB-PA3 Front Wind Baffle



Job Name: **Crossroads Dayton Campus**
System Reference: **Front wind baffle**

Date: **12/06/2023**



GENERAL FEATURES

- Front Wind Baffles allow outdoor units to operate at full capacity down to the temperature ranges shown in the table below.
- Prevents wind from reversing outdoor fan rotation when unenergized.
- Durable and low maintenance construction.

PLEASE NOTE

- Install outdoor units with the back surface facing wall side to eliminate the effects of external wind
- Outdoor units should not be installed in an orientation or site where the wind blows directly at the back of the unit
- Wind baffle should not be used where there is any obstacle at either side or above the outdoor unit as the discharged air will be blocked
- Refer to outdoor unit for detailed installation instructions

SPECIFICATIONS

Exterior			
Color	Surface Treatment	Material	Weight
Matches P-Series Outdoor Unit (Ivory Munsell 3Y 7.8/1.1)	Polyester Powder Coating	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet	8 Lbs. 8 Oz.

APPLICATION

- The Wind Baffles are used to extend the cooling temperature operation range of the TRUY, TRUZ and MX models
- The information below outlines which wind baffles to utilize per required operation range
- Please refer to the installation manual of the appropriate outdoor unit for correct installation requirements

COOLING TEMPERATURE OPERATION RANGE WITH WIND BAFFLES

Model Series	Operation Range Without Wind Baffles	Front Wind Baffles	Front + Advanced Side + Advanced Rear Wind Baffles
TRUZ	23°F - 115°F	0°F	N/A
TRUY	23°F - 115°F	0°F	-40°F
MX	23°F - 115°F	0°F	N/A

**If unit is exposed without wall surfaces surrounding for protection from wind, then side and rear wind baffles will be required. Please refer to installation dimensions and outdoor unit installation manual for appropriate requirements.

COMPATIBILITY

Single Zone	WB-PA3 (Qty)
TRUYA0361KA70(N/B)A	2
TRUYA0421KA70(N/B)A	2
TRUZA0421KA70(N/B)A	2
TRUZA0361KA70(N/B)A	2
TRUZH0301KA00NA	2
TRUZH0361KA00NA	2
TRUZH0421KA10NA	2
Multi Zone	WB-PA3 (Qty)
NTXMSH36A142AA	2
NTXMSH42A152AA	2
NTXMSM48A182AA	2
NTXMSH48A182AA	2
NTXMSM60A182AA	2
NTXMSM36A142AA	2

APPENDIX - PREVIOUS GENERATION COMPATIBILITY

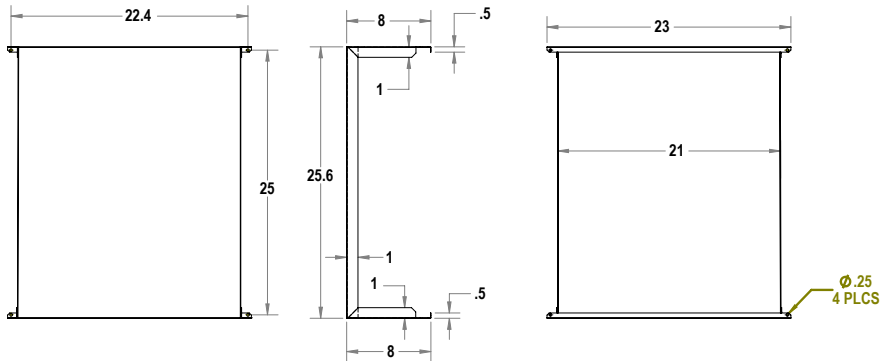
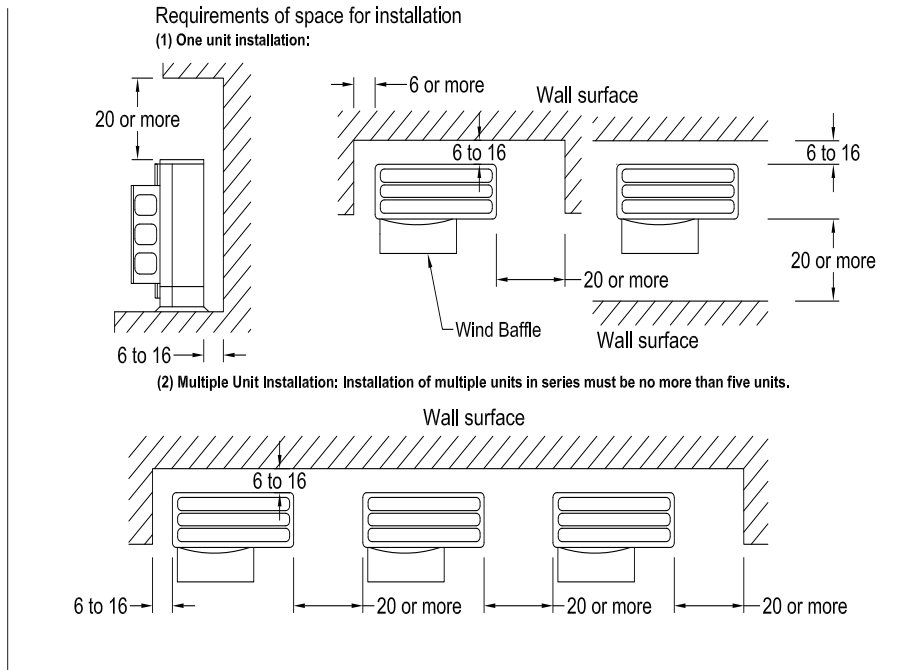
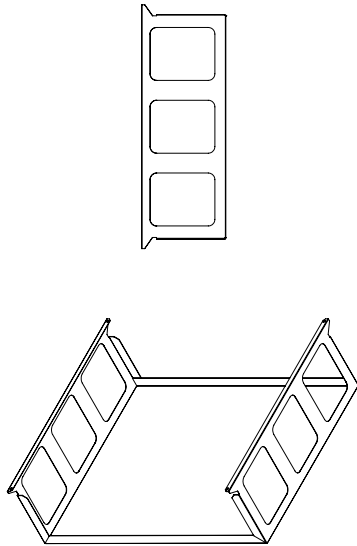
Models	Front Wind Baffles			Advanced Side Wind Baffles			Advanced Rear Wind Baffles		
	WB-PA3	WB-PA4	WB-PA5	WB-SD4	WB-SD5	WB-SD6	WB-RE4	WB-RE5	WB-RE6
TUMYH0361AK41NA	2								
TUMYH0481AK41NA	2								

COOLING TEMPERATURE OPERATION RANGE WITH WIND BAFFLES

Model Series	Operation Range Without Wind Baffles	Front Wind Baffles	Front + Advanced Side + Advanced Rear Wind Baffles
TUMY*	23°F - 115°F	5°F	N/A

*Operation range varies based on indoor unit connected, refer to service manual for applicable indoor units

DIMENSIONS: WB-PA3



ALL DIMENSIONS IN INCHES
ALL DIMENSION $\pm \frac{1}{32}$ "

WB-PA4 Front Wind Baffle



Job Name: **Crossroads Dayton Campus**
System Reference: **Front wind baffle**

Date: **12/06/2023**



GENERAL FEATURES

- Front Wind Baffles allow outdoor units to operate at full capacity down to the temperature ranges shown in the table below.
- Prevents wind from reversing outdoor fan rotation when unenergized.
- Durable and low maintenance construction.

PLEASE NOTE

- Install outdoor units with the back surface facing wall side to eliminate the effects of external wind
- Outdoor units should not be installed in an orientation or site where the wind blows directly at the back of the unit
- Wind baffle should not be used where there is any obstacle at either side or above the outdoor unit as the discharged air will be blocked
- Refer to outdoor unit for detailed installation instructions

SPECIFICATIONS

Exterior			
Color	Surface Treatment	Material	Weight
Matches P-Series Outdoor Unit (Ivory Munsell 3Y 7.8/1.1)	Polyester Powder Coating	Alloy Hot-Dip Zinc Coated Carbon Steel Sheet	7 Lbs. 7.9 Oz.

APPLICATION

- The Wind Baffles are used to extend the cooling temperature operation range of the TRUY, TRUZ and MX models
- The information below outlines which wind baffles to utilize per required operation range
- Please refer to the installation manual of the appropriate outdoor unit for correct installation requirements

COOLING TEMPERATURE OPERATION RANGE WITH WIND BAFFLES

Model Series	Operation Range Without Wind Baffles	Front Wind Baffles	Front + Advanced Side + Advanced Rear Wind Baffles
TRUZ	23°F - 115°F	0°F	N/A
TRUY	23°F - 115°F	0°F	-40°F
MX	23°F - 115°F	0°F	N/A

**If unit is exposed without wall surfaces surrounding for protection from wind, then side and rear wind baffles will be required. Please refer to installation dimensions and outdoor unit installation manual for appropriate requirements.

COMPATIBILITY

Single Zone	WB-PA4 (Qty)
TRUYA0121KA70(N/B)A	1
TRUYA0181KA70(N/B)A	1
TRUZA0121KA70(N/B)A	1
TRUZA0181KA70(N/B)A	1

APPENDIX - PREVIOUS GENERATION COMPATIBILITY

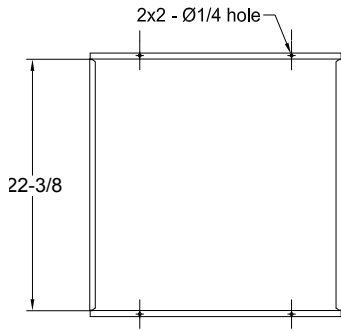
Models	Front Wind Baffles			Advanced Side Wind Baffles			Advanced Rear Wind Baffles		
	WB-PA3	WB-PA4	WB-PA5	WB-SD4	WB-SD5	WB-SD6	WB-RE4	WB-RE5	WB-RE6
TUMYH0361AK41NA	2								
TUMYH0481AK41NA	2								

COOLING TEMPERATURE OPERATION RANGE WITH WIND BAFFLES

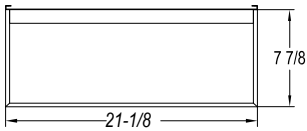
Model Series	Operation Range Without Wind Baffles	Front Wind Baffles	Front + Advanced Side + Advanced Rear Wind Baffles
TUMY*	23°F - 115°F	5°F	N/A

*Operation range varies based on indoor unit connected, refer to service manual for applicable indoor units

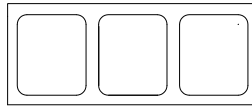
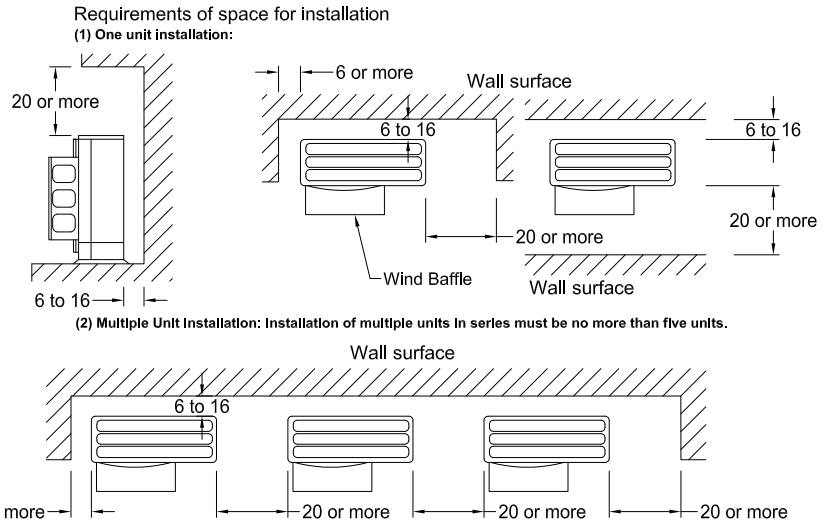
DIMENSIONS: WB-PA4



Back View



Side View



Top View

ALL DIMENSIONS IN INCHES
ALL DIMENSIONS $\pm \frac{1}{32}$ "

QUICK-SLING MINI SPLIT STAND PRODUCT GUIDE



**MOUNTING STANDS FOR M-SERIES,
P-SERIES AND S-SERIES (PUMY) UNITS**

PRODUCT OVERVIEW



Manufactured with 14-gauge square tubing and powder-coated for outdoor use, the Mini Split Stands can hold up to 400 lbs.

Quick-Sling Stands provide a safe and stable platform to mount M-Series residential, P-Series light commercial and S-Series (PUMY) outdoor units. This affordable and easy-to-install unit keeps the outdoor unit off the ground and safe from lawn mowers, pets, snow and standing water. Elevating the outdoor units allows for easy access during installation, service and maintenance.

QUICK-SLING MINI-SPLIT STANDS

The Safe & Affordable Install

Applicable for Residential or Light Commercial Installations

QSMS1201M
12" Tall Single Fan Stand

QSMS1801M
18" Tall Single Fan Stand

QSMS2401M
24" Tall Single Fan Stand



Mounting foot detail



Isolator-equipped mounting bolts provided



Easily adjustable mounting rails

QSMS1201/1801/2401: Each Quick-Sling Mini Split Stand comes with 2 arms slotted to fit all units and are adjustable in length from 34" to 40" in 1" increments. All necessary hardware is provided. Each foot is 6" x 6" 11 gauge steel and is adjustable up to 1.25" in height. Four (4) 3/8" holes allow the stand to be bolted to any surface for safety and stability. Fifty-derometer rubber pads are included. The 18" and 24" stands are equipped with additional support arms. Four points of anti-vibration isolation washers are included with each stand.

QUICK-SLING MINI-SPLIT DUAL FAN STANDS

QSMS1202M
12" Tall Dual Fan Stand

QSMS1802M
18" Tall Dual Fan Stand

QSMS2402M
24" Tall Dual Fan Stand



Easily adjustable mounting rails



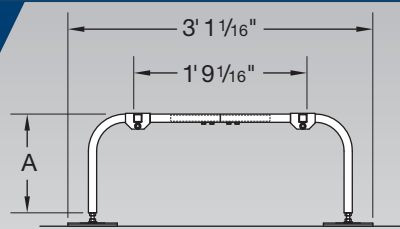
6" X 6" 11 gauge steel
Adjustable Mounting Foot

QSMS1202/1802/2402: Each Quick-Sling Mini Split Dual Fan Stand is made of 14-gauge square, steel tubing, and 11 gauge steel cross rails. This feature helps to cut down on vibration and enables the stand to hold up to 400 lbs. Each foot is 6" x 6" 11 gauge steel and is adjustable up to 1.25" in height. Four (4) 3/8" holes allow the stand to be bolted to any surface for safety and stability. Fifty-derometer rubber foot pads and 4 anti-vibration isolation washers are included. The stands are available in 12", 18", and 24" height, 30.5" width and 38" depth. The 18" and 24" stands are equipped with additional stabilization arms.

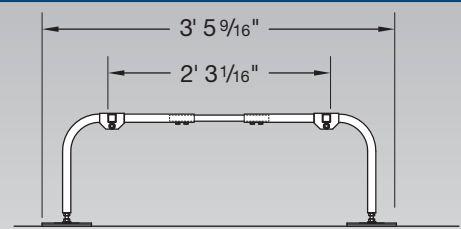
SINGLE FAN MINI-STAND MODEL NO. QSMS1201M

U.S. Patent No. 8,827,232 B2

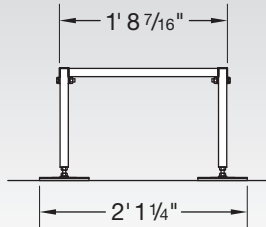
Height A:
 QSMS1201M = 12"
 QSMS1801M = 18"
 QSMS2401M = 24"



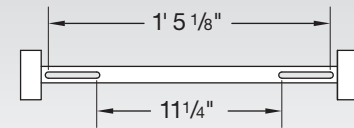
Side View – Retracted



Side View – Expanded



End View – Fixed

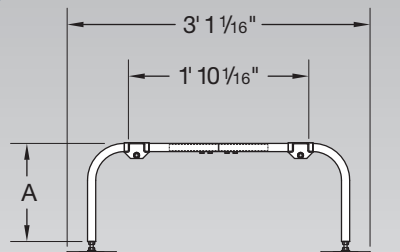


Spacer Bar Detail
(Showing Range of Bolt Spacing)

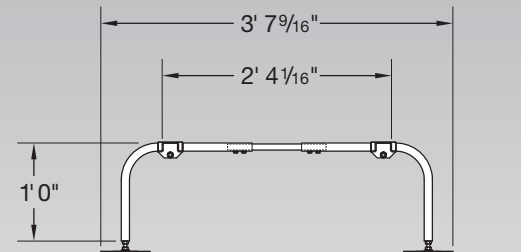
DUAL FAN MINI-STAND MODEL NO. QSMS1202M

U.S. Patent No. 8,827,232 B2

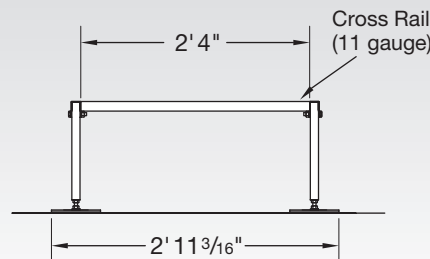
Height A:
 QSMS1202M = 12"
 QSMS1802M = 18"
 QSMS2402M = 24"



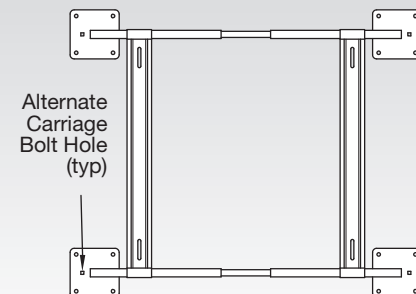
Side View – Retracted



Side View – Expanded

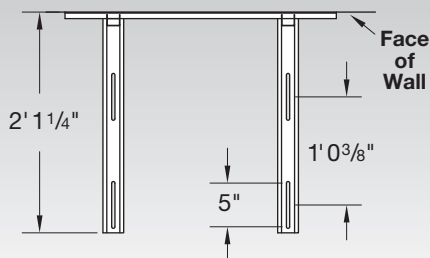


End View – Fixed

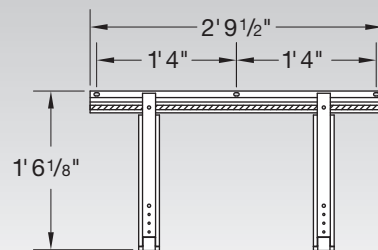


Plan View – Expanded

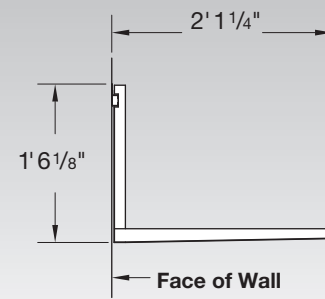
WALL BRACKET MODEL NO. QSWB2000M-1 & QSWBSS



Plan View



Elevation



Side View



MAKE COMFORT *Personal*



Quick-Stand Product Guide | 12.2016 | Printed in the USA

For more information, visit www.mitsubishipro.com

Mitsubishi Electric Cooling & Heating

1340 Satellite Boulevard • Suwanee, GA 30024, Phone: 800-433-4822

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All specifications are subject to change without notice

Manufactured for Mitsubishi Electric US-HVAC.

The three-diamond logo is a registered logo of Mitsubishi Electric Corporation. SuperStand is protected under U.S. Patent number 886,754.



TAR-40MAAU Deluxe MA Remote Controller



Job Name: **Crossroads Dayton Campus**
System Reference: **Programmable thermostat**

Date: **12/06/2023**



FULL VIEW



BASIC VIEW

OPERATION/DISPLAY

- ON/OFF
 - Switches between ON and OFF.
- Operation mode switching
 - Switches between Cool/Dry/Fan/Auto/Setback/Heat.
- Hold
 - Switches between enable and disable the Hold function.
 - If the Hold function is enable, the following functions will be prohibited.
 - ON/OFF timer/Schedule (Weekly timer) /Auto return/Auto-OFF timer
- Temperature setting
 - Changes the set temperature.
 - Set temperature range varies depending on the indoor unit model.
- Fan speed setting
 - Changes fan speed.
 - Available fan speeds vary depending on the model.
- Air flow direction setting
 - Changes airflow direction.
 - Available airflow directions vary depending on the model.
- Louver setting
 - Switches between louver ON/OFF.
- Ventilation equipment control
 - Interlocked setting and interlocked operation setting with City Multi Lossnay units can be performed.
 - The Stop/Low/High settings of the ventilation equipment can be controlled.
- Main display mode setting
 - The Main display can be displayed in two different modes: "Full" and "Basic."
- B&W inversion
 - The colors of the display can be inverted, turning white background to black and black characters to white.
- Clock *2
 - Date (year/month/day) and time (hour/minute) can be set.
 - The set time as well as the day of the week will be displayed on the Main display.
 - It is also possible for the time to not display on the main display.
 - The clock can be displayed in 12-hour format (AM/PM before or after the time) and 24-hour format.
- Daylight saving time
 - The start/end time for daylight saving time can be set.
 - The daylight saving time function will be activated based on the setting contents.
- Room temp. display
 - The room temperature display can be enabled or disabled.
- Error information
 - When an error occurs, an error code and the unit address appear.
 - The air-conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The above information needs to be entered in advance.)
- Filter information
 - A filter sign will appear when it is time to clean the filter.
- Remote controller information
 - The version of the remote controller can be checked.

*1 This function is active only for the units that support the function.

*2 The clock is accurate within 45 seconds per month (at the temperature of 77°F [25°C]). The clock is backed up for 3 days.

SCHEDULE AND TIMER SETTING

- Timer
 - ON/OFF timer
 - Turns ON and OFF daily at a set time.
 - Time can be set in 5-minute increments.
 - It is also possible to set the ON time only or the OFF time only.
 - Auto-OFF timer
 - Turns off the unit after a certain period of operation.
 - Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.
- Weekly timer
 - Weekly ON/OFF times and set temperatures can be set.
 - Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week.
 - Not valid when the ON/OFF timer is set.

RESTRICTION SETTINGS

- Allows/disallows local operation
 - The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode, set temperature, filter sign reset, air direction, fan speed and timer.
 - While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).
- Operation lock
 - The following operations can be prohibited: Sensing Location, ON/OFF, Mode, Set temp., Menu, Fan, Louver, Vane, or Hold
- Temperature range restriction
 - The room temperature range for each operation mode can be restricted.
- Auto return
 - The units operate at the preset temperature after a designated period.
 - Time can be set to a value from 30 to 120 minutes in 10-minute increments.
 - Not valid when the temperature setting range is restricted.
- Password
 - Administrator password (required for schedule setting etc.) and Maintenance password (required for test run and function setting etc.) can be set.

MISCELLANEOUS ITEMS

- Language Selection
 - Select the display language from the following 3 languages.
 - English, French, Spanish
- Brightness Contrast
 - The brightness of the LCD can be adjusted. The contrast of the LCD can be adjusted.
- Manual Vane Angle *1
 - Fixes the vane position for each air outlet.
- Service *1
 - Contains Test run, Function setting, Request code, and Error history.
- 3D i-see Sensor
 - Settings for 3D i-see Sensor can be made.

ENERGY SAVING OPTION

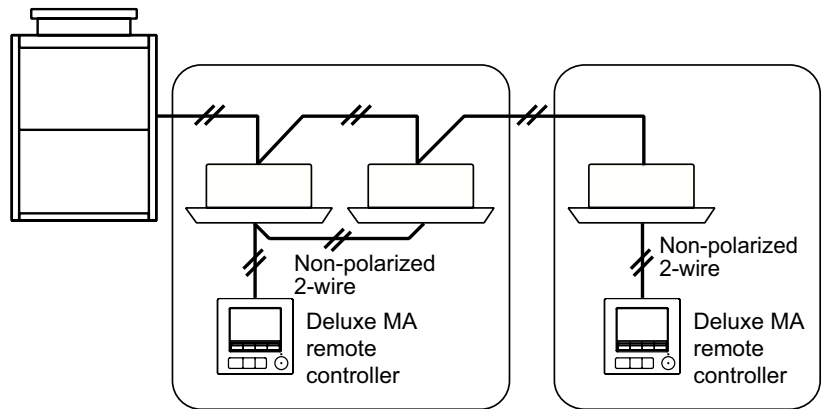
- No occupancy energy save
 - Requires 3D i-see sensor on applicable indoor units
- Room Occupancy energy save
 - Requires 3D i-see sensor on applicable indoor units
- No occupancy Auto-OFF
 - Requires 3D i-see sensor on applicable indoor units
- Setback Mode

*1 This function is active only for the units that support the function.

*2 The clock is accurate within 45 seconds per month (at the temperature of 77°F [25°C]). The clock is backed up for 3 days.

SYSTEM EXAMPLE

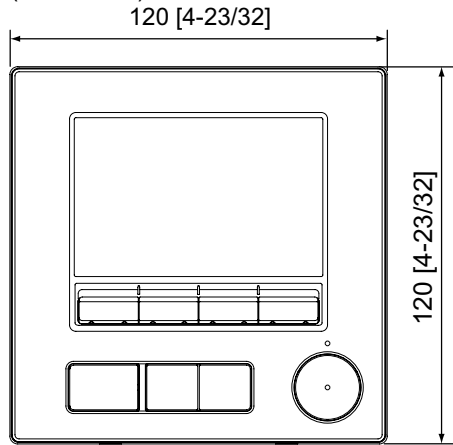
*When a TAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.



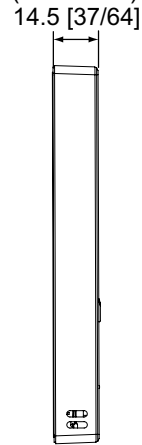
TAR-40MAAU

DIMENSIONS

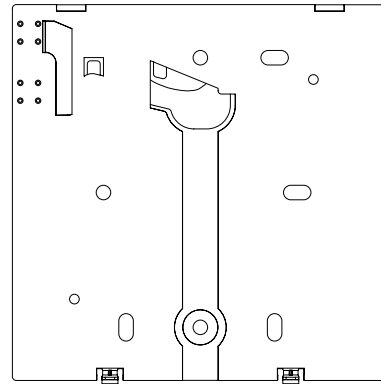
(Front view)



(Side view)



(Rear view)



Unit: mm [in.]

COMPATIBILITY CHART

CITY MULTI®	Nv-Series	P-Series
TPMFYP*BM Yes	FKS MAC-334	TPCA Yes
TPWFYP*BU Yes	WST MAC-334	TPEAD Yes
TPEFYP*MA Yes	WPH MAC-334	TPKA Yes
TPEFY*MH Yes	MSY-HM MAC-334	TPLA Yes
TPEFY*MS Yes	WMT MAC-334	TPVA Yes
TPMFY*BM Yes	AMT Yes	
TPLFY*EM Yes	DKS Yes	
TPLFY*FM Yes	CKS Yes	
TPKFY*LM Yes	UKS MAC-334	
PCFY*VKM Yes	Note: MAC-334 indicates that the unit requires a MAC-334IF-E Adapter in order to use the TAR-40MAAU	
TPCFY*KM Yes		
TPFFY*CS ¹ Yes		
TPFFY*RE Yes		
TPVfy*AM Yes		
TPKFY*BM Yes		
TPKFY*HM Yes		

SPECIFICATIONS

Product size (W x H x D)	In. (mm)	4 3/4 x 4 3/4 x 0.57 (120 x 120 x 14.5)
Net Weight	Lbs. (kg)	9/16 (0.25)
Rated Power Supply Voltage		12 VDC (supplied from indoor units)
Power Consumption	W	0.3
Usage Environment		Temperature: 0 to 40° C (32 to 104° F) Humidity: 30 to 90%RH (with no condensation)
Material	Panel	PMMA
	Main body	PC + ABS
Sound Pressure Level	dB(A)	<70 [A-weighted sound pressure level]

¹ Per Machinery Directive 2006/42/EC

Job Name: **Crossroads Dayton Campus**
 System Reference: **BACnet/MSTP Interface**

Date: **12/06/2023**

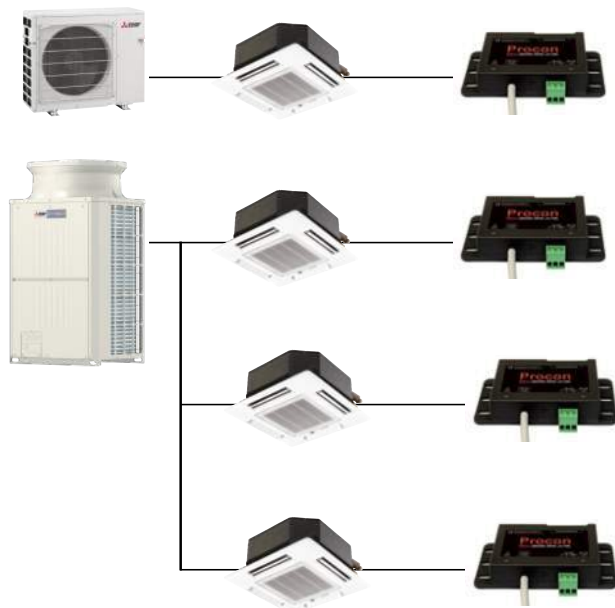
PROCON MELCOBEMS MINI (A1M)



SPECIFICATIONS

- Allows for a third party building management system to control a Mitsubishi Electric CITY MULTI®, M-Series, or P-Series indoor unit
- One MelcoBEMS MINI (A1M) per indoor unit
- Indoor Unit Connection: CN105 – IT Terminal
- 12VDC power from indoor unit CN105 Connector
- Compatible with MAC-333IF connector CN505 IT *requires additional 12VDC power supply
- Communication protocols supported:
 - BACnet® MSTP (RS-485) with addressing 1-127
 - MODBUS RTU (RS-485) with addressing 1-247
- LED light notification status of valid communication between:
 - Procon and Indoor unit
 - Procon and BACnet®/MODBUS networks
- Approximate cable length is 37 in. (940 mm)
- Dimensions: 3.74 x 2 x 0.75 in. (95 x 51 x 19 mm)
- Weight: 3.0 oz (85 g)

SYSTEM DIAGRAM



MODBUS POINTS TABLE

Object Type	Object Name
Commandable Points	ON/OFF
	Mode
	Setpoint
	Fan Speed
	Air Direction
Monitor Only Points	Fault Codes
	Room Temperature

BACnet® POINTS TABLE

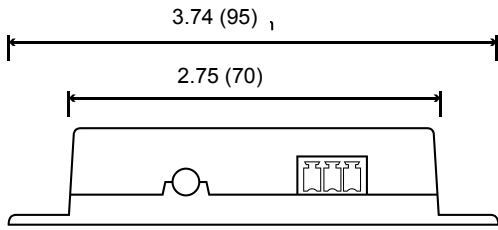
Object Type	Object Name
Commandable Points	Drive OFF/ON Setup
	Setpoint
	Mode Setup
	Fan Speed Setup
	Air Direction Setup
	Temperature Units
Monitor Only Points	Drive OFF/ON State
	Mode State
	Fan Speed State
	Air Direction State
	Inlet Temperature
	Fault Code

MODBUS POINTS TABLE

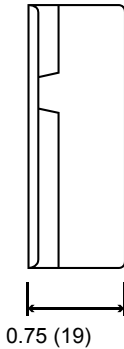
Configurable Settings	
Register Name	Modicon Address
Modbus Slave ID	40005
BACnet® Station ID	
Modbus RS-485 Baud Rate	40006
BACnet® RS-485 Baud Rate	
RS-485 Parity Type	40007
Drive On/Off	40008
Room Temperature [READ ONLY]	40009
Fault Code (hex) [READ ONLY]	40010
Firmware Version [READ ONLY]	40011
Modbus Comms Counter [READ ONLY]	40012
Fault Code (decimal) [READ ONLY]	40013
System Type Detected [READ ONLY]	40014
Deadband Enabled State [READ ONLY]	40015
BMS Room Temperature (signed)	40016
BMS Room Temperature	40017
BMS Virtual Setpoint	40018
Deadband Heating Setpoint	40019
Deadband Cooling Setpoint	40020
BACnet® Device Instance (most significant 16 bits)	40273
BACnet® Device Instance (least significant 16 bits)	40274
BACnet® Max Master	40275
BACnet® Max Info Frames	40276
BACnet® APDU Timeout	40277
BACnet® APDU Retries	40278

DIMENSIONS

Front View

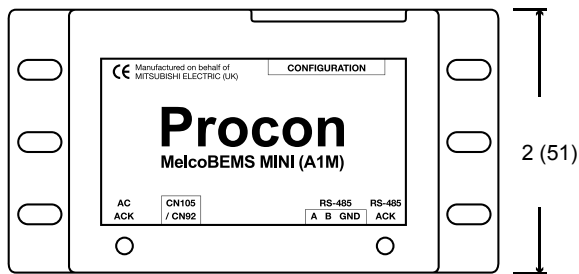


Side View



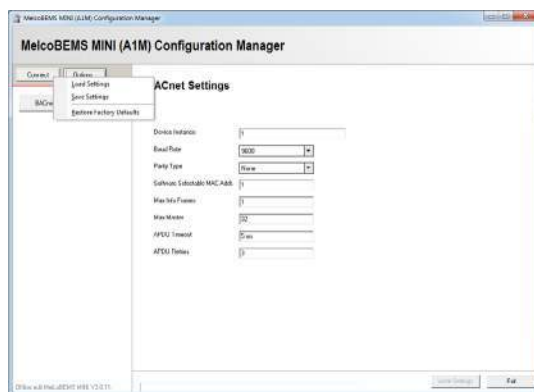
Units: in. (mm)

Top View



CONFIGURATION TOOL: MELCOBEMS MINI V1.0.1.0B.EXE

- Software downloadable from MyLinkDrive.com
- Software tool to setup BACnet® setting through Modbus Points Table
- Requires field supplied part: USB to RS-485 adapter



USB to RS-485

1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

Warranty Document



MITSUBISHI ELECTRIC US, INC.
Cooling & Heating
1340 Satellite Boulevard
Suwanee, GA 30024

LIMITED WARRANTY STATEMENT

Mitsubishi Electric P-Series Split Air-conditioner and Heat-pump Systems

Subject to the terms and conditions of this Limited Warranty, the Cooling & Heating Division of MITSUBISHI ELECTRIC US, INC. ("MEUS") warrants to the original owner of this P-Series product if purchased on or after **April 1, 2015** from a licensed HVAC contractor and installed by such contractor in the continental United States, Alaska and Hawaii, that:

- A. The parts are warranted for a period of five (5) years to the original owner of the System.** If any parts should prove defective due to improper workmanship and/or material for a period of five (5) years from the date of installation, MEUS will replace any defective part without charge for the part. Replacement parts are warranted for the remainder of the original 5-year warranty period. Parts used for replacement may be of like kind and quality and may be new or remanufactured. Defective parts must be made available to MEUS in exchange for the replacement parts and become the property of MEUS.
- B. The compressor is warranted for a period of seven (7) years to the original owner of this System.** If the compressor should prove defective due to improper workmanship and/or material for a period of seven (7) years from the date of installation, MEUS will replace the defective compressor without charge for the compressor. Replacement compressors are warranted for the remainder of the original 7-year warranty period. Compressors used for replacement may be of like kind and quality and may be new or remanufactured. Defective compressors must be made available to MEUS in exchange for the replacement compressor and become the property of MEUS.
- C. Notwithstanding the foregoing, if the System is installed and registered within 90 days from installation, the parts and compressor will be warranted for a period of 10 years to the original owner.** Specifically, if any parts and/or the compressor should prove defective due to improper workmanship and/or material for a period of ten (10) years from the date of installation, MEUS will replace any defective parts or compressor without charge for the part or compressor. The replacement parts and/or compressor are warranted for the remainder of the original 10-year warranty period. Parts and/or compressors used for replacement may be of like kind and quality and may be new or remanufactured. Defective parts and/or compressors must be made available to MEUS in exchange for the replacement parts and become the property of MEUS.
- D. Notwithstanding the foregoing, if the System is installed by an MEUS DIAMOND CONTRACTOR in a residential single-family home and registered within 90 days from installation, the parts and compressor will be warranted for a period of 12 years to the original owner, so long as the original owner resides in the home.** Specifically, if any parts and/or the compressor should prove defective due to improper workmanship and/or material for a period of twelve (12) years from the date of installation, MEUS will replace any defective parts or compressor without charge for the part or compressor. The replacement parts and/or compressor are warranted for the remainder of the original 12-year warranty period. Parts and/or compressors used for replacement may be of like kind and quality and may be new or remanufactured. Defective parts and/or compressors must be made available to MEUS in exchange for the replacement parts and become the property of MEUS.
- E. NO LABOR.** These limited warranties do NOT include labor or any other costs incurred for service, maintenance, repair, removing, replacing, installing, complying with local building and electric codes, shipping or handling, or replacement of the System, compressors or any other parts. For items that are designed to be maintained or replaced by the original owner, the original owner is solely responsible for all labor and other costs of maintaining, installing, replacing, disconnecting or dismantling the System and parts (such as filters or belts) in connection with owner-required maintenance. Air filter cleaning and/or replacement for each applicable indoor unit are owner-required maintenance, and labor for this procedure is not covered under warranty. Please consult the applicable technical documentation for air filter cleaning and other maintenance procedures.
- F. PROPER INSTALLATION.** This Limited Warranty applies only to Systems that are installed by contractors who are licensed for HVAC installation under applicable local and state law, and who install the Systems in accordance with (i) all applicable building codes and permits: (ii) MEUS's installation and operation instructions: and (iii) good trade practices.

- G. REGISTRATION.** To receive certain benefits under this Limited Warranty, as set forth in more detail above, the product must be registered within 90 days of installation. To register, the original owner may complete and return the postage-paid registration card by U.S. mail or may register the product online at www.mitsubishicomfort.com. MEUS Diamond Contractors may submit product registration information online via the extranet portal. Residents of California or Quebec need not register the product to receive warranty benefits, but are encouraged to do so.

BEFORE REQUESTING SERVICE, please review the applicable technical documentation to insure proper installation and correct customer control adjustment for the System. If the problem persists, please arrange for warranty service.

1) TO OBTAIN WARRANTY PARTS SERVICE:

- a. Contact the licensed contractor who installed the System or the nearest licensed contractor, dealer or distributor (whose name and address may be obtained on our website at www.mehvac.com) of any defect within the applicable warranty time period.
- b. Proof of the installation date by a licensed contractor is required when requesting warranty service. Present the sales receipt, building permit or other document which establishes proof and date of installation. In the absence of acceptable proof, this Limited Warranty shall be deemed to begin one hundred twenty (120) days after the date of manufacture stamped on the System.
- c. This Limited Warranty applies only to Systems purchased on or after **April 1, 2015**, only while the System remains at the site of the original installation, and only to locations within the continental United States, Alaska and Hawaii.

- 2) THIS LIMITED WARRANTY DOES NOT COVER:** property damages, malfunction or failure of the System, or personal injury caused by or resulting from: (a) accident, abuse, negligence or misuse; (b) operating the System in a corrosive or wet environment, including those containing chlorine, fluorine or any other hazardous or harmful chemicals or environmental factors, including sea- or salt-water; (c) installation, alteration, repair or service by anyone other than a licensed contractor or other than pursuant to the manufacturer's instructions; (d) improper matching of System components; (e) improper sizing of the System; (f) improper or deferred maintenance contrary to the manufacturer's instructions; (g) physical abuse to or misuse of the System (including failure to perform any maintenance as described in the Operation manual such as air filter cleaning, or any System damaged by excessive physical or electrical stress; (h) Systems that have had a serial number or any part thereof altered, defaced or removed; (i) System used in any manner contrary to the Operation Manual; (j) freight damage; or (k) damage caused by force majeure or other factors such as power surge damage caused by lightning and fluctuations in or interruptions of electrical power.

- 3) THIS LIMITED WARRANTY ALSO EXCLUDES:** (a) SERVICE CALLS WHERE NO DEFECT IN THE SYSTEM COVERED UNDER THIS WARRANTY IS FOUND; (b) System installation or set-ups; (c) Adjustments of user controls; (d) Systems purchased or installed outside the continental United States, Alaska and Hawaii; or (e) Systems purchased or installed prior to **April 1, 2015**. Consult the operating instructions for information regarding user controls.

- 4)** This Limited Warranty shall not be enlarged, extended or affected by, and no obligation or liability shall arise or grow out of, MEUS providing, directly or indirectly, any technical advice, information and/or service to original owner in connection with the System.

- 5) EXCEPT AS OTHERWISE PROVIDED IN THIS LIMITED WARRANTY, MEUS MAKES NO OTHER WARRANTIES OF ANY KIND WHATSOEVER REGARDING THE SYSTEM. MEUS DISCLAIMS AND EXCLUDES ALL WARRANTIES NOT EXPRESSLY PROVIDED HEREIN AND ALL REMEDIES WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OF THIRD PARTY RIGHTS, AND OF FITNESS FOR ANY PARTICULAR PURPOSE. NO ONE IS AUTHORIZED TO CHANGE THIS LIMITED WARRANTY IN ANY RESPECT OR TO CREATE ANY OTHER OBLIGATION OR LIABILITY FOR MEUS IN CONNECTION WITH THE SYSTEM. MEUS DISCLAIMS ALL LIABILITY FOR THE ACTS, OMISSIONS AND CONDUCT OF ALL THIRD PARTIES (INCLUDING, WITHOUT LIMITATION, THE INSTALLING CONTRACTOR) IN CONNECTION WITH OR RELATED TO THE SYSTEM.**

- 6) UNDER NO CIRCUMSTANCES SHALL MEUS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, INFRINGEMENT OF THIRD PARTY RIGHTS, LOST GOODWILL, LOST REVENUES OR PROFITS, WORK STOPPAGE, SYSTEM FAILURE, IMPAIRMENT OF OTHER GOODS, COSTS OF REMOVAL AND REINSTALLATION OF THE SYSTEM, LOSS OF USE, INJURY TO**



MITSUBISHI ELECTRIC US, INC.
Cooling & Heating
1340 Satellite Boulevard
Suwanee, GA 30024

PERSONS OR PROPERTY ARISING OUT OR RELATED TO THE SYSTEM WHETHER BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT OR OTHERWISE, EVEN IF MEUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. IN NO EVENT SHALL MEUS'S LIABILITY EXCEED THE ACTUAL PURCHASE PRICE OF THE SYSTEM WITH RESPECT TO WHICH ANY CLAIM IS MADE.

- 7) SOME STATES DO NOT ALLOW LIMITATIONS ON WARRANTIES OR EXCLUSIONS OR LIMITATION OF DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY.**
- 8) DISPUTE RESOLUTION.** For any dispute with MEUS, you agree to first contact us by phone (800-433-4822) or e-mail (CustomerCare@hvac.mea.com) or U.S. Mail at Mitsubishi Electric US, Inc., ATTN: Customer Care, 1340 Satellite Blvd., Suwanee, GA 30024, and attempt to resolve the dispute with us informally by providing your name, address, and contact information and describing the nature of the dispute. In the unlikely event that MEUS has not been able to resolve a dispute with you within 60 days of your original informal claim (or sooner if, in MEUS's opinion, a dispute is not likely to be resolved within 60 days), we each agree to resolve any claim, dispute, or controversy arising out of or in connection with or relating to this Limited Warranty, or the breach or alleged breach thereof (collectively, "Claims"), by binding arbitration before an arbitrator from Judicial Mediation and Arbitration Services ("JAMS") located in Gwinnett County, Georgia. JAMS may be contacted at www.jamsadr.com and will require you to pay an initial filing fee set by JAMS (unless you successfully apply for a waiver of this fee from JAMS). All other JAMS costs associated with the arbitration will be borne by MEUS. The arbitration will be conducted in Gwinnett County, Georgia, unless you request an in-person hearing where you live, or if you and MEUS agree otherwise. If the arbitrator decides in your favor, the award may include your costs of arbitration, your reasonable attorneys' fees and your reasonable costs for any expert and other witnesses, and any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction. If the arbitrator makes an award in your favor greater than MEUS's last written offer, MEUS will pay you the greater of the award or \$500, plus your reasonable attorney's fees, if any, and reimburse any reasonable expenses (including reasonable expert witness fees and costs) that are reasonably accrued for investigating, preparing, and pursuing your claim in arbitration, as determined by the arbitrator or as agreed to by you and MEUS. Any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction. You may sue under state law in a small claims court of competent jurisdiction without first engaging in arbitration, but you must engage in arbitration before suing under the Federal Magnuson-Moss Act.
- 9) All claims must be brought in the parties' individual capacity, and not as a plaintiff or class member in any purported class or representative proceeding. This waiver applies to class arbitration unless such arbitration is necessary to effectuate the enforcement of the court class action waiver or in the event that class arbitration is expressly agreed to by MEUS. You agree that you and MEUS are each waiving the right to a trial by jury or to participate in a class action.**
- 10) You may opt-out of the foregoing arbitration and class action/jury trial waiver provision of this Limited Warranty by notifying MEUS in writing within 30 days of purchase. Such written notification must be sent to Mitsubishi Electric US, Inc., ATTN: Legal, 5900-A Katella Avenue, Cypress, CA 90630, and must include (1) your name, (2) your address, (3) your warranted product's serial number, and (4) a clear statement indicating that you do not wish to resolve disputes through arbitration and demonstrating compliance with the 30-day time limit to opt-out.**
- 11) If any clause herein is found to be illegal or unenforceable, that clause will be severed from this Limited Warranty and the remainder of the Limited Warranty will be given full force and effect. As noted above, if a class action waiver of both court and arbitration class actions is found unenforceable, class arbitration will be expressly allowed under the Limited Warranty.**
- 12) Residents of California and Quebec do not need to register the product in order to get all of the rights and remedies of registered original owners under this warranty.**
- 13) This Limited Warranty gives the original owner specific legal rights and the original owner may also have other rights that vary from state to state.**
- 14) This Limited Warranty is valid only in the continental United States, Alaska and Hawaii, and it is not transferable.**