TOSOT

ULTRA HEAT / ULTRA COOL

MULTI- ROOM DUCTLESS HEAT-PUMP SYSTEMS 42000 BTU

SUBMITTAL DATA: TM42H5O

Job Name	Location	Date
Purchaser	Engineer	
Submitted To	For	☐ Reference ☐ Approval ☐ Construction
Unit Designation	Schedule No.	

AHRI CERTIFIED REF NO: 204344221



SYSTEM RATINGS			OUTDOOR UNIT DATA	
Rated Cooling Capacity		42,000 BTUH	**Compressor**	
Cooling Capacity (min-max)		8,871-42,991 BTUH	Type	DC Inverter Driven Rotary
Rated Heating Capacity		42,000 BTUH	RLA	28.5 A
Heating Capacity (min-max)		8,871-46,062 BTUH	Starting Current	5.0 A
SEER/EER		23.0 / 9.0	**Fan Motor**	
HSPF/COP		10.0 / 3.4	Output Power	90 W
Operating Range			FLA	1.0 A
Cooling - Low/High Ambient	(Min-Max)	0 - 115°F	Air Flow (Max)	3,060 CFM
		-18 - 46°C	**Sound Pressure Level**	
Heating - Low/High Ambient	(Min-Max)	-31 - 75°F	Cooling	62 dB(A)
		-35 ~ 24°C	Heating	62 dB(A)
Power Supply			**Dimensions & Weights**	
Normal Operational Voltage		208/230 V, 1 Phase, 60 Hz	Unit Dimensions Overall (WxDxH)* including Valve Covers and Grilles	42.8 x 17.3 x 43.4 -in
Voltage Range		187 - 253 V	Weight (Net/Shipping)	282.2/300-lbs
Main Power Wire Size		8-2 AWG	Min. Number of Indoor Units	2
Interconnecting Cable Wire Size		14-4 AWG	Max. Number of Indoor Units	5
MCA		38 A		
MOCP/Breaker Size		60 A		

REFRIGERANT PIPING DATA	
Refrigerant Type	R410A
Refrigerant Charge	176.4-oz
Additional Charge Per Line Length	0.21-oz/ft
Connection Method-Flared	1/4x3/8-in
Factory Charge for Total Line Length	131-ft
Total Refrigerant Pipe Length	262-ft
Max Refrigerant Piping Length to any Indoor Unit	82-f
Min Refrigerant Piping Length to any Indoor Unit	10-ft
Max Elevation between Indoor Units	49-ft
Max Lift from Outdoor to Indoor Unit	49-ft
Max Drop from Outdoor to Indoor Unit	49-ft

GENERAL FEATURES

- Up to 5 Indoor Units(5-Port)
- G10 DC Inverter Technology - 2 Stage / 3 Cylinder
- Compressor/Chassis Heaters
- Copper Tubing w/ Acrylicl-Resin Coated Aluminum Fins
- Intelligent Defrost
- Auto Restart on Power Outages
- Mulit-point Diagnostics

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FEATURES & FUNCTION SUMMARY: TM42H5O

SYSTEM FEATURES	
Compressor Type	Inverter Rotary
Core Technology Three Cylinder Two Stage Compressor	G10
Ultra Low Frequency Torque Control	YES
Power Factor Correction	YES
Refrigerant Type	R410A
Electronic Expansion Valve (EEV)	4
Basepan With Electric Heater	YES
Compressor Preheat	YES
Compressor With Electric Heater (-40°F)	YES
-40°F Wiring UL Approved	YES
Multi "Independent" Port Design	YES
Condenser Fan	Axial
Condenser Motor Type	DC
Condenser Motor Drive	Direct
Condenser Coil	Aluminum Fin/Copper Tube
Outdoor Fin Coating (Blue)	Acrylic Resin
Intelligent Defrosting	YES
Low Voltage Startup	YES
Memory/Power Failure Recovery	YES
Self Diagnosis	YES
Ultra Heating (-31°F - 75°F)	YES
Ultra Cooling (0°F - 118°F)	YES
XE73-44/E Wired Controller Interface	YES
XE73-44/E WIRED CONTROLLER FUNCTIONS[2]	
On/Off	YES
Operating Mode	YES
Fan Speed	YES
Room Setpoint	YES
Model Numbers	YES
Timer Mode	YES
Sleep Mode	YES
Turbo Mode	YES
X-Fan Mode	YES
Privacy Lock	YES

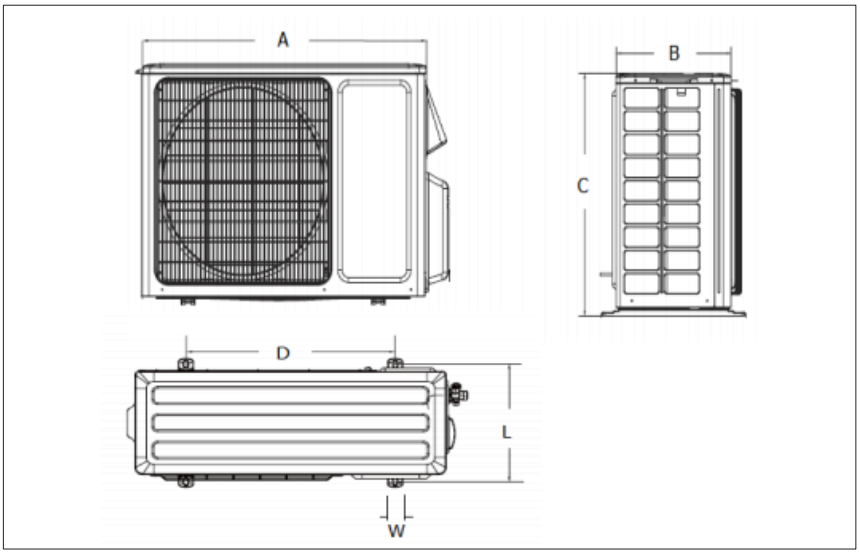
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DIMENSIONAL SPECIFICATIONS: TM42H5O

42,000 BTUH MODEL

Model # TM42H5O 42,000 BTUH 230V

Units: inch



Dimensions	
A (in)	40
B (in)	17.3
C (in)	43.5
D (in)	24.8
L (in)	16.2
W (in)	3.1

Weight (Net/Shipping) 280/300 lbs

Suction/Gas Line Port Size

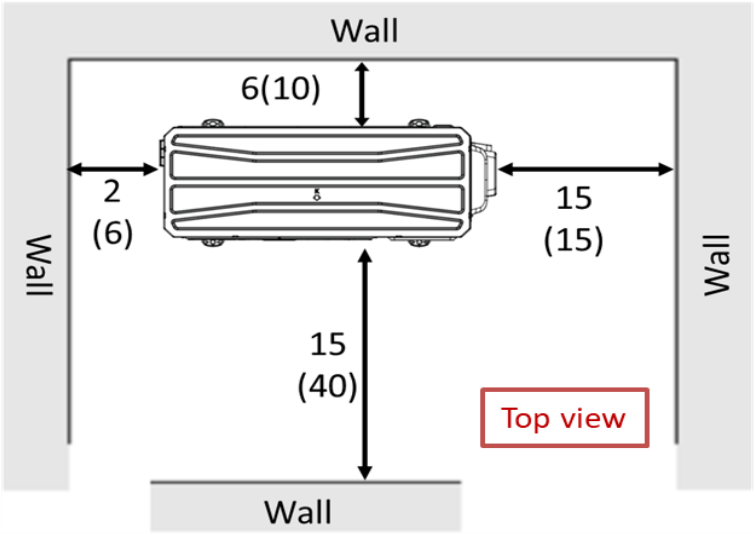
Port A	3/8-in OD Flared
Port B	3/8-in OD Flared
Port C	3/8-in OD Flared
Port D	3/8-in OD Flared
Port E	3/8-in OD Flared

Liquid Line Port Size

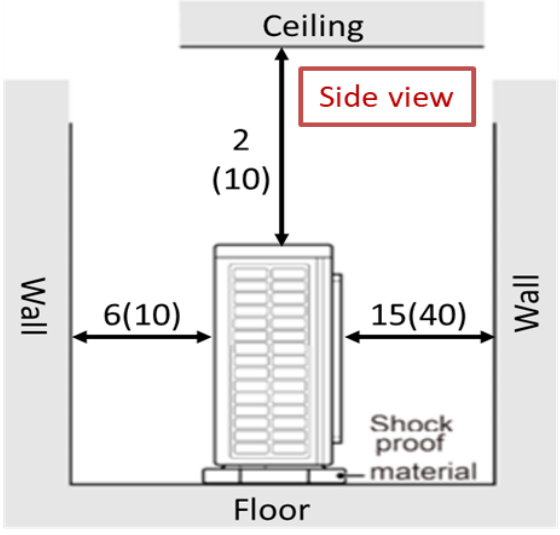
Port A	1/4-in OD Flared
Port B	1/4-in OD Flared
Port C	1/4-in OD Flared
Port D	1/4-in OD Flared
Port E	1/4-in OD Flared

MINIMUM SPACING REQUIREMENTS

Units: inch



The ceiling should be open



Either left or right side should be open

Note:

1. Apply the value in the brackets to achieve best performance
2. Wall height on air outlet side ≤ 50inch

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INDOOR UNIT COMBINATION TABLE

IDU quantity	TM18H5O	TM24H5O	TM36H5O	TM42H5O
1	9	/	/	/
	12	12	/	/
	18	18	18	18
	24	24	24	24
2	07+07	07+07	/	/
	07+09	07+09	/	/
	07+12	07+12	/	/
	/	07+18	07+18	/
	/	07+24	07+24	07+24
	09+09	09+09	09+09	09+09
	09+12	09+12	09+12	09+12
	12+12	09+18	09+18	09+18
	/	/	09+24	09+24
	/	12+12	12+12	12+12
	/	12+18	12+18	12+18
	/	/	12+24	12+24
	/	/	18+24	18+24
	/	/	/	24+24
3	/	07+07+07	07+07+07	07+07+07
	/	07+07+09	07+07+09	07+07+09
	/	07+07+12	07+07+12	07+07+12
	/	/	07+07+18	07+07+18
	/	/	07+07+24	07+07+24
	/	07+09+09	07+09+09	07+09+09
	/	07+09+12	07+09+12	07+09+12
	/	/	07+09+18	07+09+18
	/	/	07+09+24	07+09+24
	/	/	07+12+24	07+12+24
	/	/	/	07+18+24
	/	09+09+09	09+09+09	09+09+09
	/	09+09+12	09+09+12	09+09+12
	/	/	09+09+18	09+09+18
	/	/	09+09+24	09+09+24
	/	/	09+12+12	09+12+12
	/	/	09+12+18	09+12+18
	/	/	09+12+24	09+12+24
	/	/	09+18+18	09+18+18
	/	/	/	09+18+24
	/	/	12+12+12	12+12+12
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	/	/	/	18+18+18

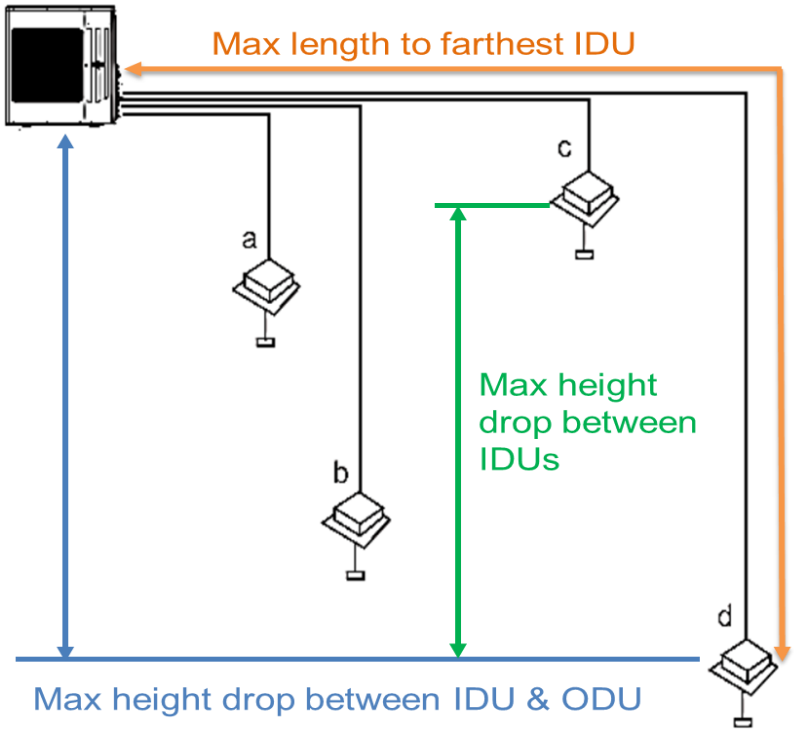
IDU quantity	TM18H5O	TM24H5O	TM36H5O	TM42H5O
4	/	/	07+07+07+07	07+07+07+07
	/	/	07+07+07+09	07+07+07+09
	/	/	07+07+07+12	07+07+07+12
	/	/	07+07+07+18	07+07+07+18
	/	/	07+07+07+24	07+07+07+24
	/	/	07+07+09+09	07+07+09+09
	/	/	07+07+09+12	07+07+09+12
	/	/	07+07+09+18	07+07+09+18
	/	/	/	07+07+09+24
	/	/	07+09+12+12	07+09+12+12
	/	/	07+09+12+18	07+09+12+18
	/	/	07+12+12+12	07+12+12+12
	/	/	/	07+12+12+18
	/	/	09+09+09+09	09+09+09+09
	/	/	09+09+09+12	09+09+09+12
	/	/	09+09+12+12	09+09+12+12
	/	/	09+12+12+12	09+12+12+12
	/	/	/	12+12+12+12
	/	/	/	12+12+12+18
5	/	/	/	07+07+07+07+07
	/	/	/	07+07+07+07+09
	/	/	/	07+07+07+07+12
	/	/	/	07+07+07+07+18
	/	/	/	07+07+07+07+24
	/	/	/	07+07+07+09+09
	/	/	/	07+07+07+09+12
	/	/	/	07+07+07+09+18
	/	/	/	07+07+07+09+24
	/	/	/	07+07+07+12+12
	/	/	/	07+07+07+12+18
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	/	/	/	07+09+09+09+18
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	/	/	/	09+09+09+09+09
	/	/	/	09+09+09+09+12
	/	/	/	09+09+09+09+18
	/	/	/	09+09+12+12+12

Note: ($\sum IDUs$Capacity ÷ODU capacity) range: 50%~150%, recommend range 50%~130%. When it exceeds the recommended range, leads to IDU poor performance when most IDUs turn on

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PIPING REQUIREMENT: TM42H5O



1. The actual total piping length ≤ the free ref. charge length: No need to charge additional ref.
2. Exceeds the above value to charge 20g/m(0.2oz/inch)
3. Only count for liquid piping length

Unit m (feet) / TM**H5O	18K	24K	36K	42K
Total length	50 (164)	70 (230)	75 (246)	80 (262)
Length to farthest IDU	25 (82)	25 (82)	25 (82)	25 (82)
Max height drop between IDU & ODU	8 (26)	8 (26)	15 (49)	15 (49)
Max height drop between IDUs	8 (26)	8 (26)	15 (49)	15 (49)
Pre-charged ref. length	20 (66)	30 (98)	40 (131)	40 (131)

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