R32 MULTI ZONE ULTRA HEAT HEATPUMP SYSTEM

48,000 BTU / H HEAT- PUMP SYSTEM

SUBMITTAL DATA: TMH48D32MO

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

AHRI CERTIFIED REF	
NON-DUCTED	217994520
DUCTED	217994521
MIX	217994522

Energy Star Number	
NON-DUCTED	4515387
DUCTED	4515389
MIX	4515390

Operating Range	
Cooling	-22 ~ 118°F
	-30 ~ 48°C
Heating	-22 ~ 75°F
	-30 ~ 24°C



SYSTEM RATINGS	
Non-Ducted Indoor Units	
Rated Cooling Capacity(95°F)	48,000 BTUH
Cooling Capacity (min-max)	11,765~53,799 BTUH
SEER2/EER2	21.0 / 12.0
Rated Heating Capacity(47°F)	48,000 BTUH
Heating Capacity (min-max)	14,007~49,200 BTUH
Low temperature heating(17°F/5°F)	40,000 / 37,800 BTUH
HSPF2 / COP at 5°F	10.0 / 3.90 / 2.10
Ducted Indoor Units	
Rated Cooling Capacity(95°F)	48,000 BTUH
Cooling Capacity (min-max)	11,765~53,799 BTUH
SEER2/EER2	18.0 / 11.7
Rated Heating Capacity(47°F)	48,000 BTUH
Heating Capacity (min-max)	14,007~49,200 BTUH
Low temperature heating(17°F/5°F)	40,000 / 36,000 BTUH
HSPF2 / COP at 5°F	8.1 / 1.90
Mixed Ducted and Non-Ducted Indoor Units	
Rated Cooling Capacity(95°F)	48,000 BTUH
Cooling Capacity (min-max)	11,765~53,799 BTUH
SEER2/EER2	19.0 / 11.8
Rated Heating Capacity(47°F)	48,000 BTUH
Heating Capacity (min-max)	14,007~49,200 BTUH
Low temperature heating(17°F/5°F)	40,000 / 37,000 BTUH
HSPF2 / COP at 5°F	9.0 / 1.84

OUTDOOR UNIT DATA	
Compressor	
Type	Twin Rotary
RLA	19.60 A
Compressor Crankcase and Base Pan Heaters included	
Fan Motor	
Output Power	130 W
FLA	2.5 A
Air Flow (Max)	3,413 CFM
Sound Pressure Level	
Cooling / Heating	54 / 54 dB(A)
Dimensions & Weights	
Unit Dimensions (W x D x H)	40-5/32 x 16-52/64 x 32-33/64 in
Weight (Net/Gross)	174 /190 LBS
Allowable Indoor Units Quantity	1 ~ 5
REFRIGERANT PIPING DATA	
Refrigerant	R32 / 95.24 oz
Additional Charge Per Line Length	0.20 oz/ft
Connection Method	Flared
Pre-charge Piping Length	164 ft
Max Total Piping Length	328 ft
Max Height Distance (IDU to IDU)	82 ft
Max Length to any IDU	82 ft
Max Height Distance (IDU to ODU)	82 ft

Power Supply			
Range	208/230 V, 1 Phase, 60 Hz	Interconnecting Cable Wire Size	14-4 AWG
		Rated Current (Cooling/Heating)	17.4 / 15.7 A
Voltage Range	187 - 253 V	MCA / MOCP	30.0 / 45.0 A
Main Power Wire Size	10-2 AWG	Suggested Breaker Size	30.0 A

TOSOT.COM

FEATURES & FUNCTION SUMMARY: TMH48D32MO

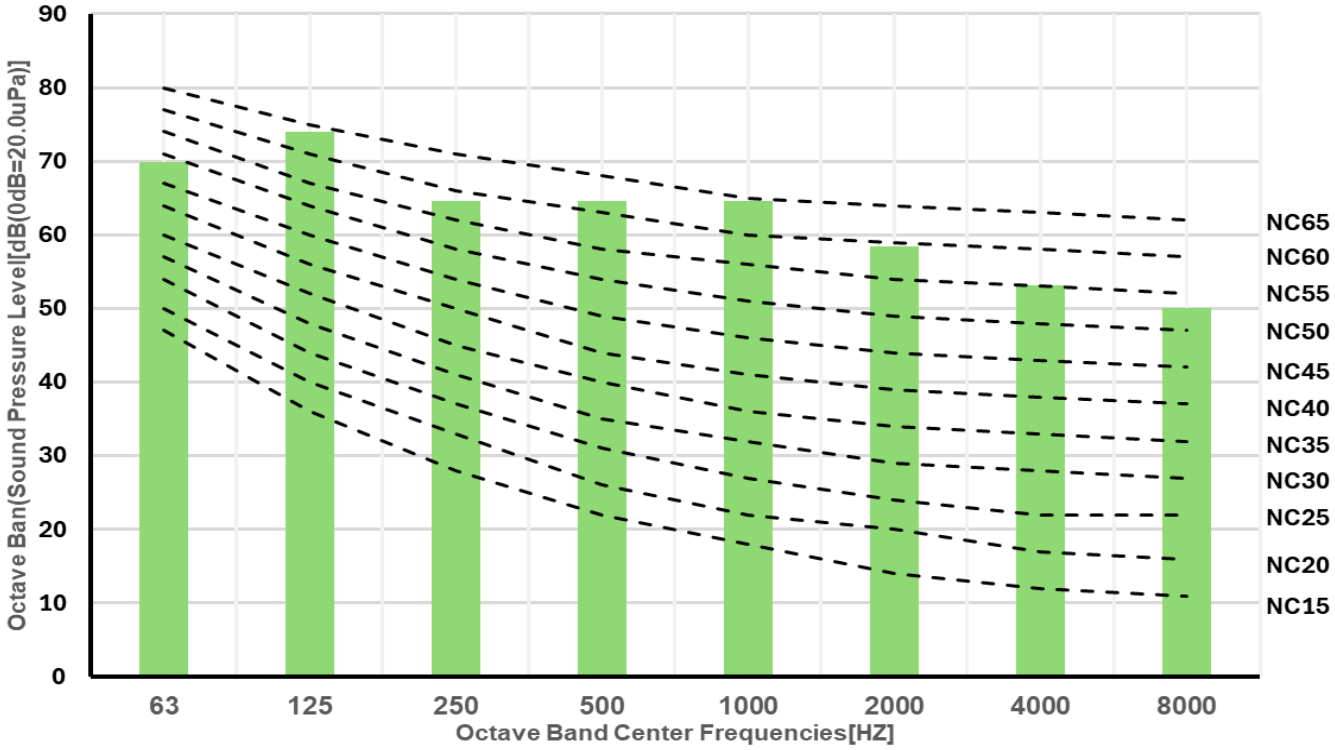
SYSTEM FEATURES	
Inverter Type	DC Inverter
Ultra Low Frequency Torque Control	YES
Power Factor Correction	YES
Compressor Type	Twin Rotary
Refrigerant Type	R32
Basepan With Electric Heater	YES
Compressor With Electric Heater	YES
Condenser Fan	Axial
Condenser Motor Type	DC
Condenser Motor Drive	Direct
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
Low Ambient Cooling	YES, until -22°F/-30°C
Wired Controller Option	XK76, XE72-44/E, XE71-00/E
REMOTE CONTROLLER FUNCTIONS	**Refer to Indoor Unit**
On/Off	YES
Operating Mode	YES
Fan Speed	YES
Room Set Point	YES
Timer Mode	YES
Sleep Mode	YES
Turbo Mode	YES
X-Fan Mode	YES
Auto Clean Mode	YES
Child Lock	YES
24Vac Signal 3rd party Backup Heater Output	Optional with XE71-00/E, SQZ004
Wifi Control	Individual IDU Optional with XE72-44/E

Note: Some indoor models may not support specific system features or functions.

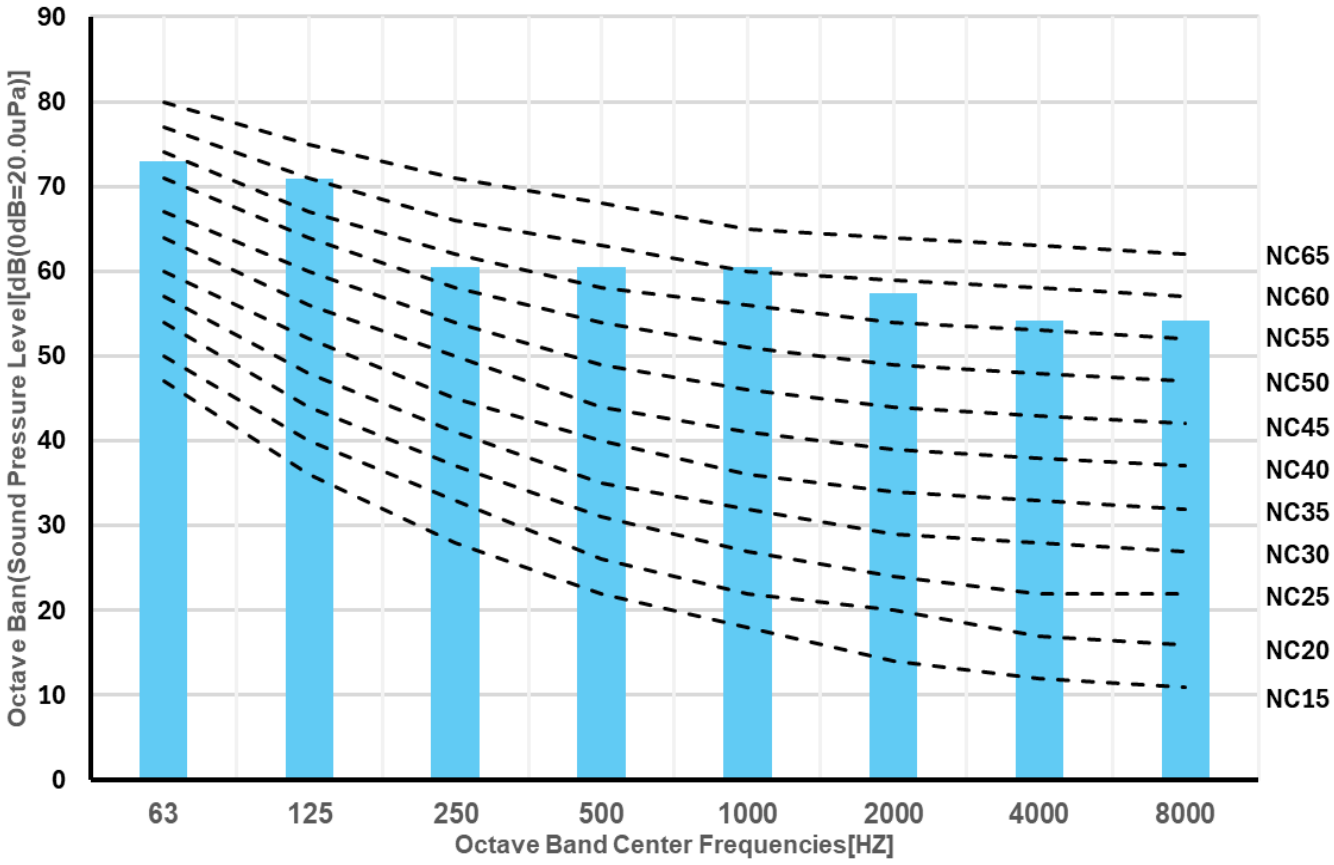
SOUND DATA: TMH48D32MO

ACOUSTIC OCTAVE-BAND SOUND POWER DATA

Nominal Cooling



Nominal Heating



INDOOR UNIT COMBINATION TABLE

IDU quantity	48K
1	24
2	07+24
	09+12
	09+18
	09+24
	12+12
	12+18
	12+24
	18+18
	18+24
	24+24
3	07+07+12
	07+07+18
	07+07+24
	07+09+09
	07+09+12
	07+09+18
	07+09+24
	07+12+24
	07+18+24
	09+09+09
	09+09+12
	09+09+18
	09+09+24
	09+12+12
	09+12+18
	09+12+24
	09+18+18
	09+18+24
	12+12+12
	12+12+18
	12+18+18
	18+18+18
	18+18+24

IDU quantity	48K
4	07+07+07+07
	07+07+07+09
	07+07+07+12
	07+07+07+18
	07+07+07+24
	07+07+09+09
	07+07+09+12
	07+07+09+18
	07+07+09+24
	07+09+12+12
	07+09+12+18
	07+09+12+24
	07+12+12+12
	07+12+12+18
	07+12+12+24
	07+12+18+18
	07+12+18+24
	07+18+18+18
	09+09+09+09
	09+09+09+12
	09+09+09+18
	09+09+09+24
	09+09+12+12
	09+12+12+18
	09+12+12+24
	09+12+12+12
	09+12+12+18
	09+12+12+24
	12+12+12+12
	12+12+12+18
	12+12+12+24
	12+12+18+18

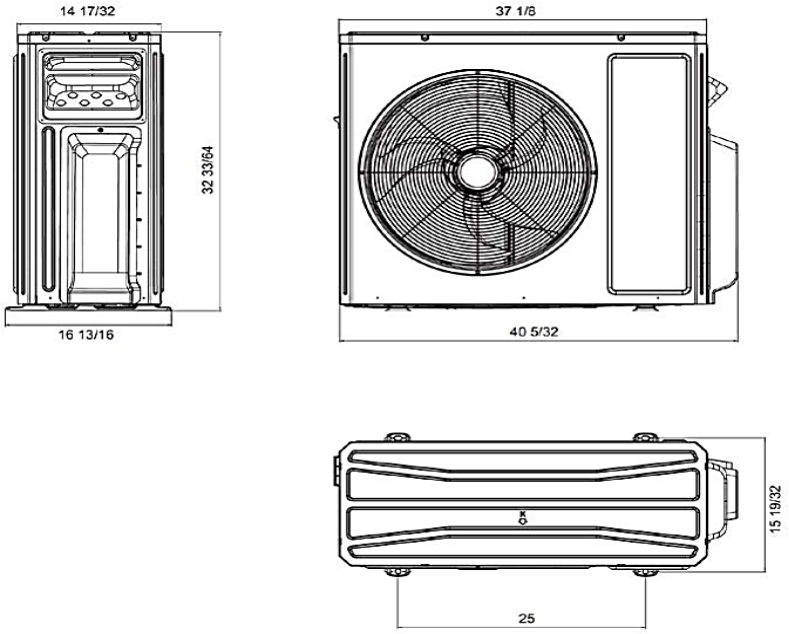
IDU quantity	48K
5	07+07+07+07+07
	07+07+07+07+09
	07+07+07+07+12
	07+07+07+07+18
	07+07+07+07+24
	07+07+07+09+09
	07+07+07+09+12
	07+07+07+09+18
	07+07+07+09+24
	07+07+07+12+12
	07+07+07+12+18
	07+07+07+12+24
	07+07+09+09+09
	07+07+09+09+12
	07+07+09+09+18
	07+07+09+09+24
	07+07+09+12+12
	07+07+09+12+18
	07+07+09+12+24
	07+07+12+12+12
	07+07+12+12+18
	07+07+12+12+24
	07+09+09+09+09
	07+09+09+09+12
	07+09+09+09+18
	07+09+09+09+24
	07+09+09+12+12
	07+09+09+12+18
	07+09+09+12+24
	07+09+12+12+12
	07+09+12+12+18
	07+12+12+12+12
	07+12+12+12+18
	09+09+09+09+09
	09+09+09+09+12
	09+09+09+09+18
	09+09+09+09+24
	09+09+12+12+12
	09+09+12+12+18

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

DIMENSION SPECIFICATIONS: TMH48D32MO

DIMENSIONS AND SERVICE VALVES

Units: inch



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

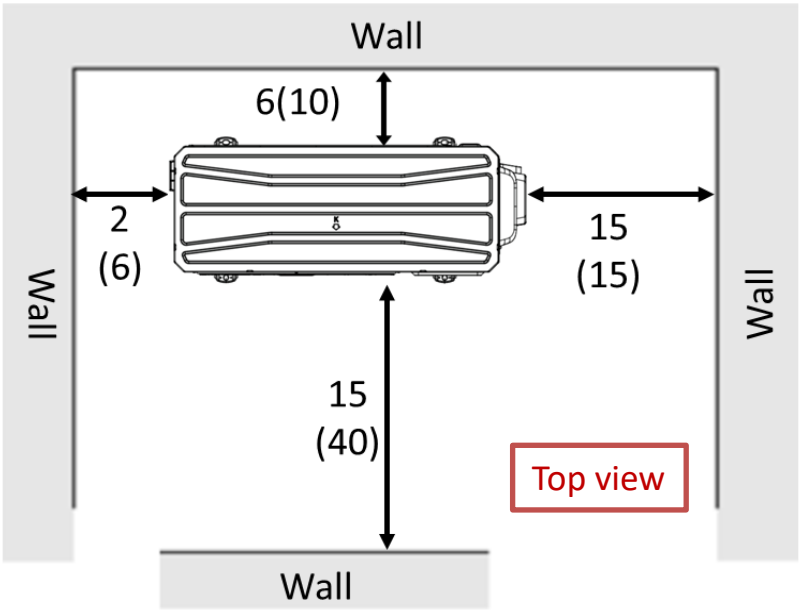
Port A	1/4-in OD Flared
Port B	1/4-in OD Flared
Port C	1/4-in OD Flared
Port D	1/4-in OD Flared
Port E	1/4-in OD Flared

Factory Supplied Piping Adapters

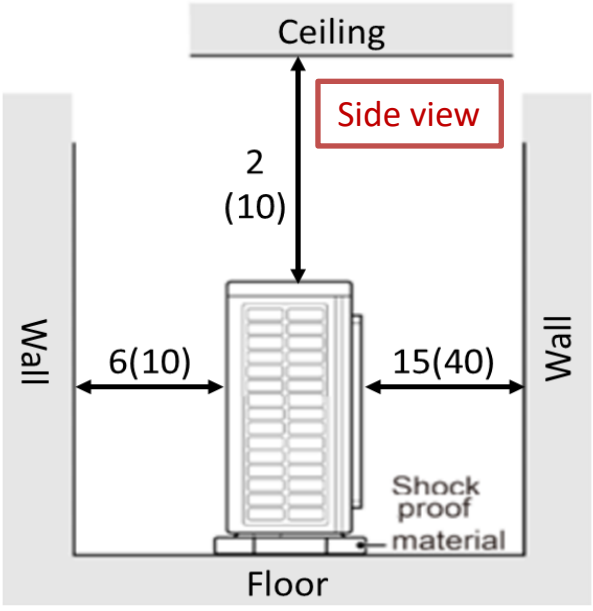
Adapter	P/N	Qty
3/8 (F) to 5/8 (M)	6654100009	2
3/8 (F) to 1/2 (M)	6654100013	4
1/4 (F) to 3/8 (M)	6654104	2

MINIMUM SPACING REQUIREMENTS

Units: inch



The ceiling should be open

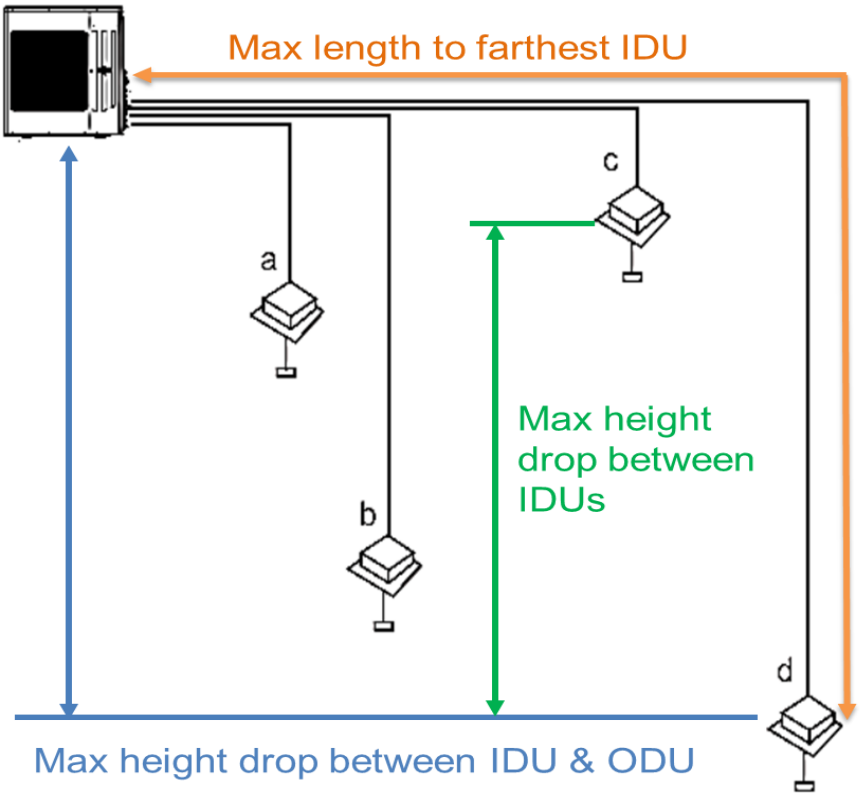


Either left or right side should be open

Note:

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

PIPING REQUIREMENT



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

Unit m (feet) / TMH**D32MO	18K	24K	30K	36K	42K	48K	60K
Total length	40 (131)	60 (197)	80 (263)	80 (263)	100 (328)	100 (328)	120 (394)
Length to farthest IDU	20 (66)	20 (66)	25 (82)	25 (82)	25 (82)	25 (82)	25 (82)
Max height drop between IDU & ODU	15 (49)	15 (49)	25 (82)	25 (82)	25 (82)	25 (82)	25 (82)
Max height drop between IDUs	15 (49)	15 (49)	25 (82)	25 (82)	25 (82)	25 (82)	25 (82)
Pre-charged ref. length	10 (33)	30 (98)	40 (131)	40 (131)	50 (164)	50 (164)	60 (195)