



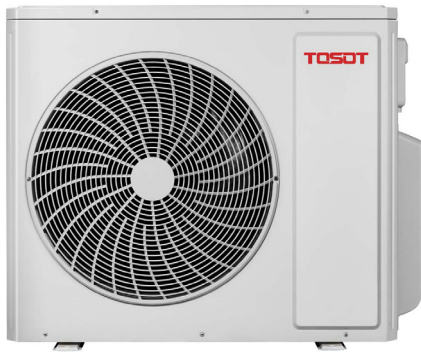
# MULTI-ROOM DUCTLESS HEAT-PUMP SYSTEMS

24,000 BTU / H WALL MOUNTED HEAT- PUMP SYSTEM

## SUBMITTAL DATA: TM24HX40

Job Name	Location	Date
Purchaser	Engineer	
Submitted To	For	<input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction
Unit Designation	Schedule No.	

**AHRI CERTIFIED REF  
211164240 (NON-DUCTED) &  
211164245 (DUCTED)**



### GENERAL FEATURES

- Up to 5 Indoor Units(5-Port)
- Heating as low as -22F
- DC Inverter Twin Rotary Technology
- Quiet Operation - Both Indoor & Outdoor
- Acrylic Resin/Anti-Corrosion Coil Protection
- Intelligent Defrost
- Auto Restart on Power Outages
- Multi-point Diagnostics

SYSTEM RATINGS		OUTDOOR UNIT DATA	
<b>Non-Ducted Indoor</b>		<b>Compressor</b>	
Rated Cooling Capacity(95F)	23,200 BTUH	Type	DC Inverter Driven Twin Rotary
Cooling Capacity (min-max)		RLA	12.1 A
Rated Heating Capacity(47F)	24,000 BTUH	<b>Compressor Crankcase and Base Pan Heaters included</b>	
Low temperature heating(17F)	23,600 BTUH	<b>Fan Motor</b>	
Heating Capacity (min-max)		Output Power	60W
SEER2/EER2	21/12.5	FLA	/
HSPF2/COP	10/3.6	Air Flow (Max)	2,236 CFM
<b>Ducted Indoor</b>		<b>Sound Pressure Level</b>	
Rated Cooling Capacity(95F)	23,200 BTUH	Cooling	58 db(A)
Cooling Capacity (min-max)		Heating	58 db(A)
Rated Heating Capacity(47F)	24,000 BTUH	<b>Dimensions &amp; Weights</b>	
Low temperature heating(17F)	23,000 BTUH	Unit Dimensions (LxHxD)	38 x 26 x 15.8 -in
Heating Capacity (min-max)		Weight (Net/Shipping)	114.7 /124.6 LBS
SEER2/EER2/HSPF2	16/11/8	Min. Number of Indoor Units	1
<b>Operating Range</b>		Max. Number of Indoor Units	3
Cooling (min-max)	-22 ~ 118°F	<b>REFRIGERANT PIPING DATA</b>	
	-30 ~ 48°C	Refrigerant Type	R410A
Heating (min-max)	-22 ~ 75.2°F	Refrigerant Charge	84.7 oz
	-30 ~ 24°C	Additional Charge Per Line Length	0.20-oz/ft
<b>Power Supply</b>		Connection Method	Flared
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Factory Charge for Total Line Length	131.2-ft
Voltage Range	187 - 253 V	Max Total Refrigerant Pipe Length	196.8-ft
Main Power Wire Size	12-2 AWG	Max Refrigerant Piping Height Distance(indoor and outdoor)	49.2-ft
Interconnecting Cable Wire Size	14-4 AWG	Max Refrigerant Piping Length to any Indoor Unit	65.6-ft
Rated Current (Cooling/Heating)	14.2/15 A	Max Refrigerant Piping Height Distance(up indoor and outdoor)	49.2-ft
MCA	19 A	Max Refrigerant Piping Height Distance(indoor and up outdoor)	49.2-ft
MOCp	25 A		
Suggested Breaker Size	20 A		

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## FEATURES & FUNCTION SUMMARY: TM24HX40

SYSTEM FEATURES	
Inverter Type	DC Inverter
Ultra Low Frequency Torque Control	YES
Power Factor Correction	YES
Compressor Type	Twin Rotary
Refrigerant Type	R410A
Basepan With Electric Heater	YES
Compressor With Electric Heater	YES
Condenser Fan	Axial
Condenser Motor Type	ECM
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
XK19 Wired Controller Interface	YES
<b>REMOTE CONTROLLER FUNCTIONS</b>	<b>See individual Indoor Unit Controllers Functions</b>
XK19 WIRED CONTROLLER FUNCTIONS <sup>2</sup>	
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

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



## EXTENDED RATINGS: TM24HX40

COOLING PERFORMANCE																					
Outdoor Ambient Temperature (DB)		Return Air Temperature																			
		70°F (DB) / 59°F (WB)					75°F (DB) / 63°F (WB)					80°F (DB) / 67°F (WB)					90°F (DB) / 73°F (WB)				
		TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER (Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER (Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER (Btu/(h·W))	Power Input (W)
MAX OUTPUT*	-22°F																				
	-4°F																				
	5°F																				
	14°F																				
	23°F																				
	32°F																				
	41°F																				
	50°F																				
	59°F																				
	68°F																				
	77°F																				
	86°F																				
	95°F																				
	104°F																				
113°F																					
118°F																					

\*Maximum Output values are not based on AHRI test conditions

<b>LEGEND:</b>	<b>W - Watts</b>
	<b>DB - Dry Bulb</b>
	<b>TC - Total Capacity</b>
	<b>SC - Sensible Capacity</b>
	<b>SHR - Sensible Heat Ratio</b>
	<b>COP - Coefficient of Performance</b>





## EXTENDED RATINGS: TM24HX40

HEATING PERFORMANCE										
Outdoor Ambient Temperature (DB)	Return Air Temperature									
	70°F (DB) / 59°F (WB)			75°F (DB) / 63°F (WB)			80°F (DB) / 67°F (WB)			
	TC (Btu/h)	COP (W/W)	Power Input (W)	TC (Btu/h)	COP (W/W)	SHR Power Input (W)	TC (Btu/h)	COP (W/W)	Power Input (W)	
<b>MAX OUTPUT*</b>	-22°F	17,220	1.58	3,200	16,996	1.52	3,270	16,566	1.45	3,344
	-5°F	19,848	1.89	3,086	19,590	1.82	3,154	19,094	1.74	3,225
	0°F	20,724	1.99	3,048	20,455	1.92	3,115	19,936	1.83	3,185
	5°F	21,600	2.10	3,010	21,319	2.03	3,076	20,779	1.94	3,145
	7°F	21,886	2.14	3,003	21,601	2.06	3,069	21,054	1.97	3,138
	17°F	23,600	2.34	2,960	23,293	2.26	3,025	22,703	2.15	3,093
	28°F	23,750	2.76	2,525	23,441	2.66	2,581	22,848	2.54	2,639
	38°F	23,875	3.24	2,163	23,565	3.12	2,210	22,968	2.98	2,260
	47°F	24,000	3.91	1,800	23,688	3.77	1,840	23,088	3.60	1,881
	57°F	24,720	4.21	1,720	24,399	4.07	1,758	23,781	3.88	1,798
	68°F	25,680	4.45	1,692	25,346	4.30	1,730	24,704	4.09	1,768
77°F	26,400	4.68	1,654	26,057	4.52	1,691	25,397	4.31	1,729	

\*Maximum Output values are not based on AHRI test conditions

<b>LEGEND:</b>	<b>W - Watts</b>
	<b>DB - Dry Bulb</b>
	<b>TC - Total Capacity</b>
	<b>SC - Sensible Capacity</b>
	<b>SHR - Sensible Heat Ratio</b>
	<b>COP - Coefficient of Performance</b>

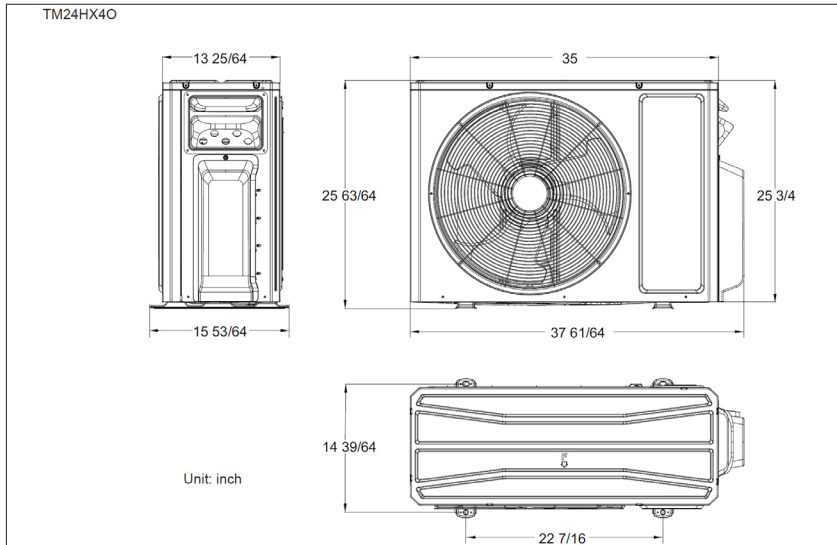
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## DIMENSIONAL SPECIFICATIONS: TM24HX40

### 24,000 BTUH MODEL

Model # TM24HX40

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

#### Liquid Line Port Size

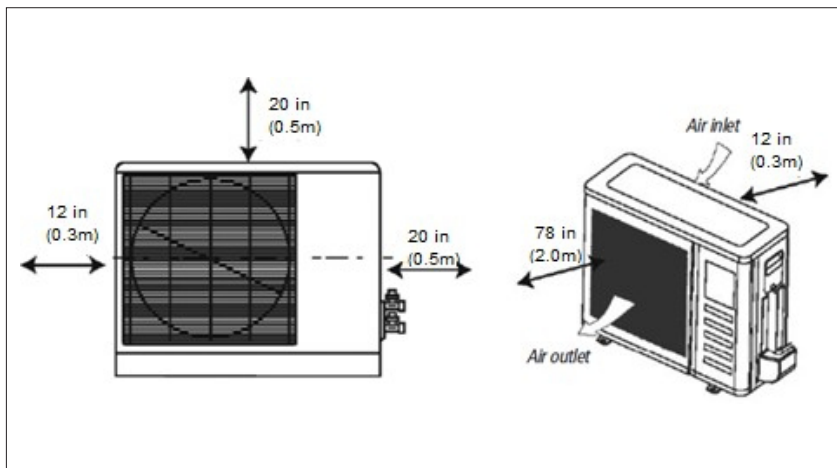
Port A	1/4-in OD Flared
Port B	1/4-in OD Flared
Port C	1/4-in OD Flared

#### 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	3

### MINIMUM SPACING REQUIREMENTS

Units: inch



#### Notes:

1. Recommended Interconnecting Cable Type  
14 AWG 4 Stranded Copper Conductors Wire.

2. Power wiring cable size must comply with applicable national and local codes.

3. Test conditions are based on AHRI 210/240.