

**TOSOT**

# ULTRA HEAT / ULTRA COOL

## SUPERIOR PERFORMANCE IN EXTREME TEMPERATURES

**24000 BTU / H WALL MOUNTED HEAT- PUMP SYSTEM**

### SUBMITTAL DATA: TW24HQ3D6D

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 NO: 10062021**



Sold Separately

YAG1FB2F (Included, ONLY ONE)

### GENERAL FEATURES

- Variable Speed (Inverter) Two-Stage Compressor
- Low Ambient Heating ( down to -22° F)
- High Ambient Cooling ( up to - 129° F)
- WiFi Included
- Wireless Remote with LCD Display (included)
- Wired Controller (Sold Separately) XE71
- 7 Indoor Fan Speeds /4 Way Airflow Operation
- Copper Tube/Aluminum Fins w/Acrylic Resin Anti-Corrosion both inside and out
- I-FEEL Function



SYSTEM RATINGS		INDOOR UNIT DATA		
<b>Cooling</b>		<b>Fan Motor</b>		
Rated Capacity	22,000 BTU/H	Type	Cross-flow	
Capacity Range	6,800 -30,700 BTU/H	Output Power	70W	
Power Input	1700 W	FLA	0.38A	
Power Input (Min/Max)	450/3700 W	<b>Air flow</b>	(Low/High) 383/824 CFM	
SEER	21.5	<b>Air Throw</b>	(Max) 29.5 ft	
EER	13.0	<b>Sound Pressure Levels for All Settings</b>		
<b>Heating at 47° F</b>		Cooling & Heating	54/49/46/43/40/37/34 dB(A)	
Rated Capacity	24,000 BTU/H	<b>Dehumidification</b>	4.23 pt/hr	
Capacity Range	6,800 -32,000 BTU/H	<b>OUTDOOR UNIT DATA</b>		
Power Input	2000 W	<b>Compressor</b>		
Power Input (Min/Max)	380/3700 W	Type	DC Inverter Driven 2-Stage Rotary	
HSPF	12.0	RLA	16 A	
COP	3.5	<b>Fan Motor</b>		
<b>Heating at 17° F</b>		Output Power	90 W	
Rated Capacity	15,500 BTU/H	RLA	0.65 A	
<b>Operating Range</b>		<b>Sound Pressure Level</b>		
Cooling	(Max)	129°F (54°C)	59 dB(A)	
	(Min)	0°F (-18°C)	<b>Refrigerant Piping Data</b>	
Heating	(Max)	75°F (24°C)	Gas Pipe Size (OD)	5/8-in
	(Min)	-22°F (-30°C)	Liquid Pipe Size (OD)	1/4-in
<b>Power Supply</b>		Connection Method	Flared	
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Factory Charge	R410A/81.1 oz	
Voltage Range	187 - 253 V	Additional Charge	0.5 oz/ft	
Main Power Wire Size	8-2 AWG	Pre-Charge Length	25-ft	
Interconnecting Cable Wire Size	14-4 AWG	MAX Refrigerant Pipe Length	164-ft	
MCA	22 A	MIN Refrigerant Pipe Length	10-ft	
MOCP/Breaker Size	35 A	Pipe Elevation	98.4-ft	

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## FEATURES & FUNCTION SUMMARY: TW12HQ3D6D

SYSTEM FEATURES	
Inverter Type	G10
Ultra Low Frequency Torque Control	Yes
Power Factor Correction	Yes
Compressor Type	High Eff. Two Stage Rotary
Refrigerant Type	R410A
Basepan With Electric Heater	YES
Compressor With Electric Heater	YES
Indoor & Outdoor Fin Coating	Acrylic Resin/Anti-Corrosion
Intelligent Defrosting	YES
Intelligent Preheating	YES
Low Voltage Startup	YES
Memory/Power Failure Recovery	YES
Self Diagnosis	YES
Wired Controller Interface	NO
WIFI Included	YES
Indoor Fan Type	Crossflow
Multi Fan Speeds	7 Speeds
Indoor Unit Display	YES
Auxiliary Electrical Heater	NO
Ventilation (Outdoor Air)	NO
REMOTE CONTROLLER FUNCTIONS	
Auto Mode	YES
Auto Fan	YES
Auto Swing (Horizontal Auto Swing)	YES
Auto Swing (Vertical Auto Swing)	YES
Clock on Remote Controller	YES
Dry Mode	YES
Dry Anti-Mildew (X-Fan) Mode	YES
Energy Saving Mode	NO
Dirty Filter Alert	NO
I Feel Function	YES
Lock on Remote Controller	YES
Quiet Mode	YES
Room Temperature Display	NO
Sleep Mode	YES
4 Sleep Modes Options	YES
Timer Mode	YES
Turbo Mode	YES
Display On/Off Control	YES
Freeze Guard Mode	NO
Power Failure Mode	YES



## EXTENDED RATINGS: TW24HQ3D6D

### ULTRA COOL

### ULTRA HEAT

COOLING PERFORMANCE						HEATING PERFORMANCE					
Outdoor Ambient Temperature (DB)	Return Air Temperature					Outdoor Ambient Temperature (DB)	Return Air Temperature				
	80° F (DB)						70° F (DB)				
	TC (Btu/h)	SHR	EER	Power Input (W)	SHR %		TC (Btu/h)	COP	Power Input (W)		
<b>MAX OUTPUT</b>	0°F	8903.0	6454.0	1.47	1775.0	72.49%	<b>MAX OUTPUT</b>	-22°F	12854	1.30	2903
	5°F	11666.0	8516.0	1.54	2227.0	73.00%		-20°F	13391	1.33	2951
	10°F	12622.0	9203.0	1.55	2386.0	72.91%		-15°F	13749	1.36	2963
	15°F	12886.0	9702.0	1.56	2421.0	75.29%		-10°F	14379	1.41	2989
	20°F	13425.0	9882.0	1.61	2443.0	73.61%		-5°F	15360	1.49	3023
	25°F	13815.0	10223.0	1.64	2461.0	74.00%		0°F	18750	1.78	3085
	30°F	14429.0	10749.0	1.71	2472.0	74.50%		5°F	19070	1.78	3148
	35°F	15128.0	11250.0	1.73	2563.0	74.37%		10°F	19200	1.75	3212
	40°F	16271.0	12203.0	1.75	2718.0	75.00%		15°F	20480	1.83	3278
	45°F	17263.0	13008.0	1.82	2780.0	75.35%		17°F	20942	1.85	3317
	50°F	18113.0	13675.0	1.86	2847.0	75.50%		20°F	21440	1.88	3345
	55°F	18951.0	14235.0	1.91	2908.0	75.11%		25°F	24000	2.06	3413
	60°F	19461.0	15001.0	1.95	2925.0	77.08%		30°F	24320	2.05	3482
	65°F	20262.0	15500.0	2.00	2975.0	76.50%		35°F	26504	2.21	3515
	70°F	22603.0	16658.0	2.08	3158.0	73.70%		40°F	30400	2.51	3553
	75°F	24253.0	18647.0	2.15	3307.0	76.89%		45°F	30988	2.52	3603
	80°F	25554.0	19085.0	2.21	3389.0	74.68%		47°F	31360	2.53	3626
	85°F	26402.0	20461.0	2.26	3425.0	77.50%		50°F	32000	2.53	3700
	90°F	25909.0	20337.0	2.21	3436.0	78.49%		55°F	26240	3.73	2060
	95°F	25788.0	20111.0	2.19	3446.0	77.99%		60°F	24480	3.38	2122
100°F	20770.0	18220.0	2.13	2858.0	87.72%	65°F	23200	3.11	2185		
105°F	18269.0	12779.8	2.09	2562.0	69.95%	70°F	21920	2.85	2251		
110°F	14573.0	11258.0	2.01	2125.0	77.25%	75°F	20640	2.61	2319		
115°F	12437.0	11018.4	1.98	1841.1	88.59%						
120°F	11300.0	10085.0	1.92	1725.0	89.25%						
125°F	10891.0	9807.0	1.89	1689.0	90.05%						
129°F	9529.0	9620.0	1.78	1569.0	100.95%						

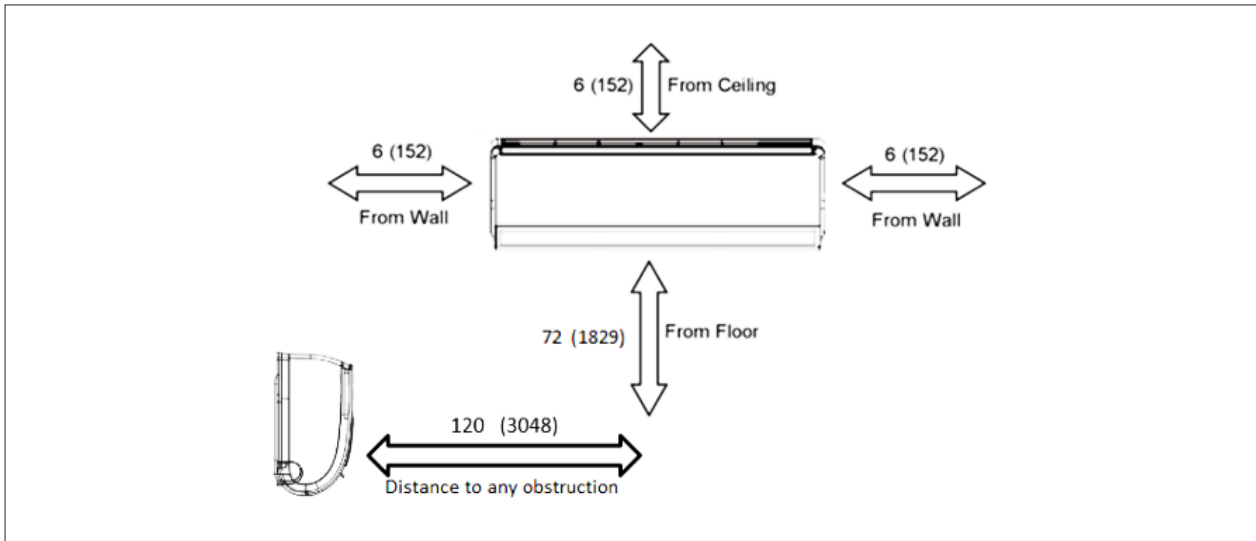
<b>LEGEND:</b>	<b>W - Watts</b>
	<b>DB - Dry Bulb</b>
	<b>TC - Total Capacity</b>
	<b>SHR - Sensible Heat Ratio</b>
	<b>COP - Coefficient of Performance</b>

**DIMENSIONAL SPECIFICATIONS: TW24HQ3D6D**

**MINIMUM SPACING REQUIREMENTS**

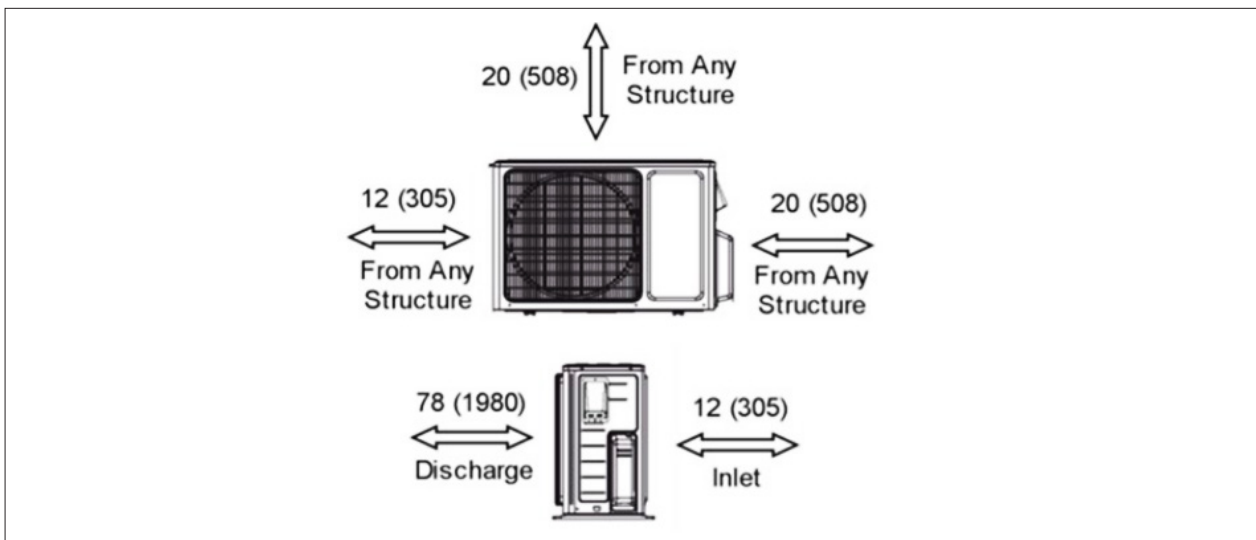
**INDOOR**

Units: inch (mm)



**MINIMUM OUTDOOR CLEARANCES**

Units: inch (mm)



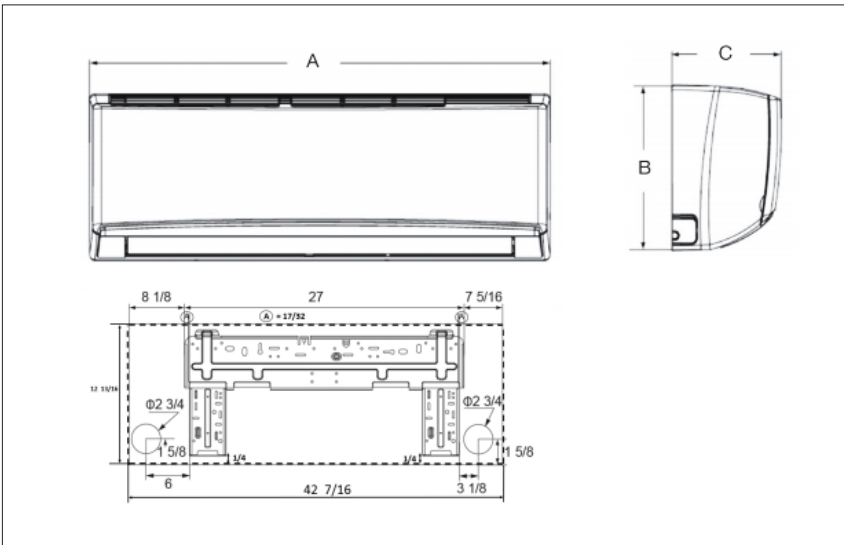
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## DIMENSIONAL SPECIFICATIONS: TW24HQ3D6D

### INDOOR UNIT DIMENSIONS

Model No: TW24HQ3D6DI

Units: inch



Dimensions	
A	44 1/2
B	13
C	9 3/4

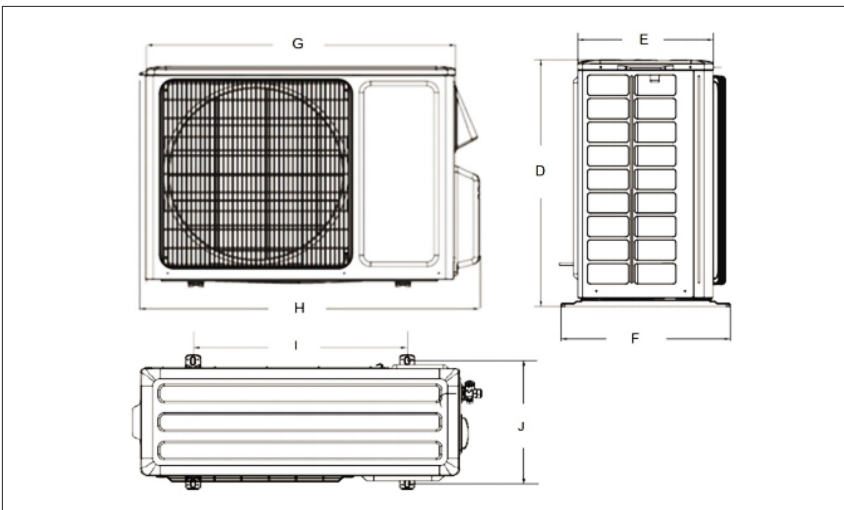
### Weight (Net/Shipping) 36 / 43 LBS

Liquid Line Valve	1/4-in OD Flared
Gas Line Valve	5/8-in OD Flared
Drain Connector	5/8-in OD

### OUTDOOR UNIT DIMENSIONS

Model No: TW24HQ3D6DO

Units: inch



Dimensions	
D	31 3/8
E	14 5/8
F	17
G	36 1/4
H	39 3/8
I	24
J	15 3/8

### Weight (Net/Shipping) 148 /158 LBS

Liquid Line Valve	1/4-in OD Flared
Gas Line Valve	5/8-in OD Flared

#### 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.