

## Ultra Heat Multi Zone Heat Pump

# TOSOT

**MODEL: TM18H5O**

Project Name:

Location:

Engineer Name:

Purshaser:

Unit Designation:

Schedule No.

SubmittedTo:

Date:

### General Features

- High And Low Pressure Protection Features
- Over Load Protection Features
- 100% Heating Capacity at -4F
- 80% Heating Capacity at -22F
- Stable Operation at -31F!
- Drain Pan Heater Included



- Over-Current Protection
- Anti Freeze Protection
- Optional BMS Integration

### Unit Performance:

Cooling:	-	-
Capacity (Min Rated Max, Btu/h)	6,998-18,000-21,000	
SEER	23	
EER (Btu/h)/w	12.5	
Heating:	-	-
Capacity (Min Rated Max, Btu/h)	7,000-21,000-26,000	
HSPF	10.5	
COP (W/W)	3.6	

### Unit Specification

Refrigerant Type	R410A
Refrigerant Control	EEV
Sound Pressure (dB(A))	58
Net Weight (lbs)	172
Min. Number IDU	1
Max. Number IDU	2
Dehumidification (Pint/h)	N/A
Heat Exchanger Coating	GoldFin™

### Piping

Refrigerant Charge (lbs)	4.85
Liquid Line (in)	1/4
Gas Line (in)	3/8
Max Total Piping (ft)	164
Max ODU to IDU Piping (per zone, ft)	82
Total Piping Length (with factory charge, ft)	65
Max Elevation between ODU and IDU (ft)	26
Max Elevation between IDU and IDU (ft)	26

### Electrical Specification

Power Supply	208-230V / 60Hz
Communications Wire Size	AWG 14/4
MOP (A)	35
MCA (A)	23
Cooling Rated Amps (A)	6.3
Heating Rated Amps (A)	7.4
Compressor RLA (A)	14.9
Fan Motor RLA (A)	0.38
Nominal Cooling Power Input (kW)	1.45
Nominal Heating Power Input (kW)	1.71

### Operating Range:

Cooling (°F)	0~118
Heating (°F)	-31~75

### Compressor:

Quantity	1
Type	Inverter Rotary
Oil/Type	FW68DA

### Fan

Type	Axial-flow
Quantity	1
Motor/Drive	DC motor/Direct drive
Max Air Flow Rate (CFM)	2530

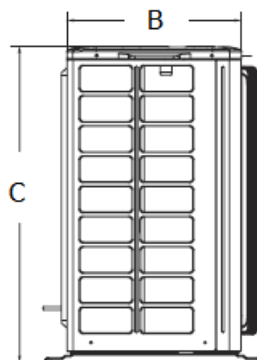
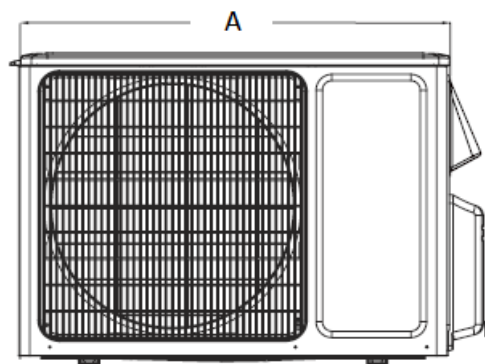


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Outline Dimension Diagram



A (in)	36.22
B (in)	15
C (in)	31.1

**GLOSSARY**

SEER Seasonal Energy Efficiency Ratio

EER Energy Efficiency Ratio

HSPF Heating Seasonal Performance Factor

MOP Maximum Overcurrent Protection

MCA Minimum Circuit Ampacity

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MODEL: TM18H50

COOLING PERFORMANCE (BtuH)*									
Outdoor Ambient Temperature (DB) °F	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F WB			61°F WB			67°F WB		
	TC	SHC		TC	SHC		TC	SHC	
0°F	11182	8769		11822	9262		13018	10214	
5°F	11573	9076		12235	9586		13473	10571	
14°F	12122	9507		12806	10040		14453	11336	
23°F	13281	10418		14206	11143		16277	12766	
32°F	14113	11069		14909	11693		16826	13193	
41°F	14620	11467		15440	12109		17644	13835	
50°F	14875	11666		15910	12478		18230	14294	
59°F	16106	12631		17227	13510		18867	14793	
68°F	18240	14306		19380	15197		20710	16243	
77°F	18025	14139		19171	15037		20520	16096	
86°F	17138	13440		18278	14338		19950	15647	
95°F	16220	12721		17353	13607		19000	14902	
104°F	15434	12105		16562	12991		18506	14517	
113°F	15035	11791		16169	12676		18113	14203	
122°F	14643	11483		15770	12368		17721	13895	
129°F	14250	11175		15200	11919		17100	13414	
HEATING PERFORMANCE (BtuH)*									
Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F WB			61°F WB			67°F WB		
	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP
-31°F	16500	4.80	1.01	16300	4.65	1.03	15900	4.63	1.01
-22°F	18902	4.89	1.13	18401	4.94	1.09	18030	4.95	1.07
-13°F	20698	4.96	1.22	20160	5.01	1.18	19762	5.02	1.15
-5°F	22479	3.28	2.01	21906	3.32	1.93	21482	3.43	1.84
0°F	22148	3.34	1.94	21565	3.38	1.87	21130	3.49	1.78
5°F	22251	3.17	2.06	21672	3.21	1.98	21245	3.31	1.88
10°F	22498	3.20	2.06	21913	3.24	1.98	21475	3.34	1.88
17°F	22072	3.18	2.03	21492	3.22	1.96	21053	3.32	1.86
19°F	21778	2.97	2.15	21478	3.01	2.09	21036	3.10	1.99
24°F	21108	3.08	2.01	20856	3.11	1.96	20478	3.21	1.87
32°F	20566	2.95	2.05	20339	2.98	2.00	20008	3.07	1.91
41°F	21375	2.73	2.30	21165	2.76	2.25	20848	2.84	2.15
43°F	21960	2.13	3.02	21750	2.16	2.96	21440	2.22	2.82
47°F	24000	2.18	3.23	23340	2.20	3.10	22846	2.27	2.94
53°F	24240	1.98	3.59	23573	2.00	3.45	23079	2.07	3.27
59°F	22316	2.00	3.27	21695	2.02	3.14	21236	2.09	2.98
64°F	22788	1.83	3.64	22160	1.85	3.50	21695	1.91	3.32
70°F	23220	1.86	3.66	22579	1.88	3.51	22100	1.94	3.33
75°F	23544	1.70	4.06	22896	1.72	3.90	22417	1.78	3.70
78°F	23760	1.72	4.06	23105	1.74	3.90	22619	1.79	3.70
* Maximum system capacity TC- Total Capacity ( BtuH) COP- Coefficient of Performance									

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