TOSOT

Multi **ULTRA** Ductless heat-pump systems 18,000 BTU

Submittal Data: TM18H5O — Inverter Heat Pump System

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

GENERAL FEATURES

- -Dual Indoor Units (2-Port)
- -G10 DC Inverter Technology - 2 Stage / 3 Cylinder
- -Automatic Defrosting
- -Compressor/Chassis Heaters
- -Copper Tubing w/ Acrylicl-Resin Coated Aluminum Fins
- -Intelligent Defrost
- -Auto Restart on Power Outages
- -Mulit-point Diagnostics
- -Limited 5 yr Parts & Compressor Warranty-Residential Only

System Ratings

Rated Cooling Capacity	18,000 BTUH
Cooling Capacity (min-max)	6,998-21,001 BTUH
Rated Heating Capacity	21,000 BTUH
Heating Capacity (min-max)	7,000-26,000 BTUH
SEER/EER	23.0 / 12.5
HSPF/COP	10.5 / 3.6

Operating Range

Cooling - Low/High Ambient	(min-max)	0 ~ 118°F
		-18 ~ 48°C
Heating - Low Ambient (ULTRA)	(min-max)	'-31 ~ 75°F
		-35 ~ 24°C

Power Supply

Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz
Voltage Range	187 - 253 V
Main Power Wire Size	10-2 AWG
Interconnecting Cable Wire Size	14-4 AWG
MCA	23.0 A
MOCP/Breaker Size	35 A

Outdoor Unit Data

Compressor	Type	DC Inverter Driven Rotary
	RLA	14.9 A
	Starting Current	5.0 A
Fan Motor	Output Power	90 W
	FLA	0.4 A
	Air Flow (Max)	2531 CFM

Sound Pressure Level

Cooling	58 dB(A)
Heating	58 dB(A)

Dimensions & Weights

Unit Dimensions Overall (WxDxH)*	39.5 x 16.8 x 31.1-in
* including Valve Covers and Grilles	
Weight (Net/Shipping)	172/183 lbs

Min. Number of Indoor Units	2
Max. Number of Indoor Units	2

Refrigerant Piping Data

Refrigerant Type	R410A
Refrigerant Charge	77.6 oz
Additional Charge Per Line Length	0.2-oz/ft
Connection Method-Flared	1/4x3/8-in
Factory Charge for Total Line Length	66-ft
Total Refrigerant Pipe Length	164-ft
Max Refrigerant Piping Length to any Indoor Unit	82-ft
Min Refrigerant Piping Length to any Indoor Unit	10-ft
Max Elevation between Indoor Units	26-ft
Max Lift from Outdoor to Indoor Unit	26-ft
Max Drop from Outdoor to Indoor Unit	26-ft

5 YEAR LIMITED WARRANTY · INVERTER · R410A non ozone-depleting refrigerant · AHRI CERTIFIED www.ahridirectory.org · ETL LISTED

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)	2
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
XK19 Wired Controller Interface	YES

REMOTE CONTROLLER FUNCTIONS[1]	See individual Indoor Unit Controllers Functions

[1] *Not all Remote Controller functions are supported.*

XK19 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

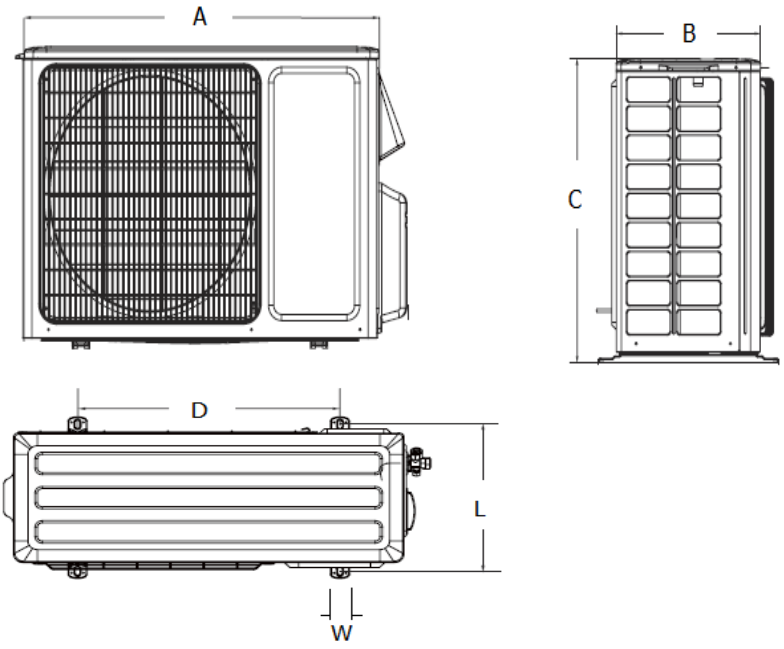
[2] *Note: Some indoor models may not support specific system features or functions.*

DIMENSIONAL SPECIFICATIONS TM18H5O

18,000 BTUH MODEL

Model # TM18H5O 18,000 BTUH 230V

Units: inch



A (in)	36.2
B (in)	14.6
C (in)	31.1

D (in)	24.0
L (in)	15.6
W (in)	2.4

Weight (Net/Shipping)	172/183 lbs

Suction/Gas Line Port Size

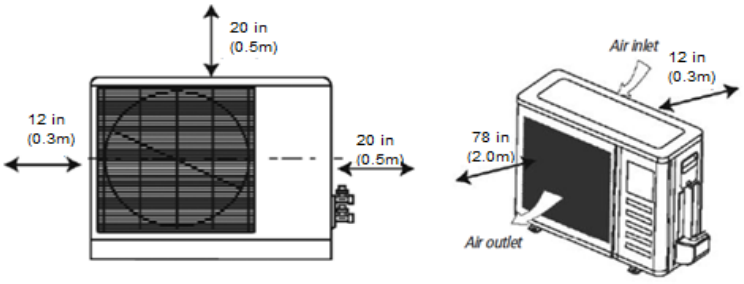
Port #1	3/8-in OD Flared
Port #2	3/8-in OD Flared

Liquid Line Port Size

Port #1	1/4-in OD Flared
Port #2	1/4-in OD Flared

MINIMUM SPACING REQUIREMENTS

Units: inch (m)



Notes:

1. Recommended Interconnecting Cable Type Stranded Copper Conductors THHN 600V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.
3. Test conditions are based on AHRI 210/240.

EXTENDED RATINGS **TM18H5O**

ULTRA COOL

COOLING PERFORMANCE (BtuH)*
MODEL: TM18H5O

Outdoor Ambient Temperature (DB) °F	Indoor Entering Air Temperatures					
	68F DB		73°F DB		80°F DB	
	57F WB		61°FWB		67°FWB	
	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

ULTRA HEAT

HEATING PERFORMANCE (BtuH)*
MODEL:TM18H5O

Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°FWB			61°FWB			67°FWB		
	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP
-31°F	21200	4.64	1.34	20924	4.74	1.29	20394	4.85	1.23
-22°F	21350	4.36	1.44	21072	4.45	1.39	20539	4.55	1.32
-13°F	21500	4.08	1.55	21221	4.16	1.49	20683	4.26	1.42
-5°F	21633	3.82	1.66	21352	3.91	1.60	20811	4.00	1.53
0°F	21717	3.67	1.74	21434	3.75	1.68	20891	3.83	1.60
5°F	21800	3.51	1.82	21517	3.59	1.76	20972	3.67	1.68
10°F	21467	3.30	1.91	21188	3.37	1.84	20651	3.45	1.76
17°F	21000	3.00	2.05	20727	3.07	1.98	20202	3.14	1.89
19°F	21333	2.99	2.09	21056	3.05	2.02	20523	3.12	1.93
24°F	22167	2.95	2.20	21879	3.02	2.12	21324	3.09	2.03
32°F	23500	2.90	2.37	23195	2.96	2.29	22607	3.03	2.19
41°F	25000	2.84	2.58	24675	2.90	2.49	24050	2.97	2.38
43°F	25333	2.83	2.63	25004	2.89	2.54	24371	2.95	2.42
47°F	26000	2.80	2.72	25662	2.86	2.63	25012	2.93	2.51
53°F	24240	2.28	3.12	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

OPERATIONAL PERFORMANCE SPECIFICATIONS TM18H5O

ULTRA HEAT **ULTRA COOL**

COOLING CAPACITY (BTUH)

Indoor Units Combinations	Rated System Capacity (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)
9K+9K	18,000	9,000	9,000	NA	NA
9K+12K	20,000	9,000	11,000	NA	NA
12K+12K	21,000	10,500	10,500	NA	NA

HEATING CAPACITY (BTUH)

Indoor Units Combinations 12K	Rated System Capacity	Indoor Unit A	Indoor Unit B NA	Indoor Unit C NA	Indoor Unit D NA
9K+9K	21,000	10,500	10,500	NA	NA
9K+12K	22,000	10,000	12,000	NA	NA
12K+12K	26,000	13,000	13,000	NA	NA

Capacity data is based on the following conditions :

Cooling Nominal Test Conditions
Indoor: 80°F DB/67°F WB
Outdoor: 95°F DB/75°F WB

Heating Nominal Test Conditions
Indoor: 70°F DB/60°F WB
Outdoor: 47°F DB/43°F W