



MULTI **ULTRA** Ductless heat-pump systems 36,000 BTU

Submittal Data: TM36H50		Heat Pump System																																			
Job Name		Location																																			
Purchaser		Date																																			
Submitted To		Engineer																																			
Submitted To		For ☐ Reference ☐ Approval ☐ Construction																																			
Unit Designation		Schedule No.																																			
GENERAL FEATURES -Up to Four Indoor Units (4-Port) -G10 DC Inverter Technology -Quiet Operation - Both Indoor & Outdoor -Blue Fin Coil Coating -Intelligent Defrost -Auto Restart on Power Outages -Multit-point Diagnostics -Limited 5 yr Parts & Compressor Warranty-Residential Only		 TosotComfort.Com																																			
System Ratings		Outdoor Unit Data																																			
Rated Cooling Capacity 36,000 BTUH Cooling Capacity (min-max) 8,871-42,650 BTUH Rated Heating Capacity 36,000 BTUH Heating Capacity (min-max) 8,871-42,514 BTUH SEER/EER 23.0 / 9.0 HSPF/COP 10.0 / 3.21		Compressor Type DC Inverter Driven Rotary RLA 27.0 A Starting Current 5.0 A Fan Motor Output Power 90 W FLA 1.0 A Air Flow (Max) 3,060 CFM																																			
Operating Range <table border="0"> <tr> <td>Cooling</td> <td>(min-max)</td> <td>0 - 115°F</td> </tr> <tr> <td></td> <td></td> <td>-18 - 46°C</td> </tr> <tr> <td>Heating</td> <td>(min-max)</td> <td>-31 - 75°F</td> </tr> <tr> <td></td> <td></td> <td>-35 - 24°C</td> </tr> </table>		Cooling	(min-max)	0 - 115°F			-18 - 46°C	Heating	(min-max)	-31 - 75°F			-35 - 24°C	Sound Pressure Level Cooling 62 dB(A) Heating 62 dB(A) Dimensions & Weights Unit Dimensions Overall (WxDxH)* 42.8 x 17.3 x 43.4 -in * including Valve Covers and Grilles Weight (Net/Shipping) 280/298 lbs																							
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Power Supply <table border="0"> <tr> <td>Normal Operational Voltage</td> <td>208/230 V, 1 Phase, 60 Hz</td> </tr> <tr> <td>Voltage Range</td> <td>187 - 253 V</td> </tr> <tr> <td>Main Power Wire Size</td> <td>8-2 AWG</td> </tr> <tr> <td>Interconnecting Cable Wire Size</td> <td>14-4 AWG</td> </tr> <tr> <td>MCA</td> <td>36.0 A</td> </tr> <tr> <td>MOCP/Breaker Size</td> <td>60 A</td> </tr> </table>		Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Voltage Range	187 - 253 V	Main Power Wire Size	8-2 AWG	Interconnecting Cable Wire Size	14-4 AWG	MCA	36.0 A	MOCP/Breaker Size	60 A	Refrigerant Piping Data <table border="0"> <tr> <td>Refrigerant Type</td> <td>R410A</td> </tr> <tr> <td>Refrigerant Charge</td> <td>158.8-oz</td> </tr> <tr> <td>Additional Charge Per Line Length</td> <td>0.2-oz/ft</td> </tr> <tr> <td>Refrigerant Tubing Size (Flared) - 4 Ports</td> <td>1/4 x 3/8-in</td> </tr> <tr> <td>Factory Charge for Total Line Length</td> <td>131-ft</td> </tr> <tr> <td>Total Refrigerant Pipe Length</td> <td>246-ft</td> </tr> <tr> <td>Max Refrigerant Piping Length to any Indoor Unit</td> <td>82-ft</td> </tr> <tr> <td>Min Refrigerant Piping Length to any Indoor Unit</td> <td>10-ft</td> </tr> <tr> <td>Max Elevation between Indoor Units</td> <td>49-ft</td> </tr> <tr> <td>Max Lift from Outdoor to Indoor Unit</td> <td>49-ft</td> </tr> <tr> <td>Max Drop from Outdoor to Indoor Unit</td> <td>49-ft</td> </tr> </table>		Refrigerant Type	R410A	Refrigerant Charge	158.8-oz	Additional Charge Per Line Length	0.2-oz/ft	Refrigerant Tubing Size (Flared) - 4 Ports	1/4 x 3/8-in	Factory Charge for Total Line Length	131-ft	Total Refrigerant Pipe Length	246-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	49-ft	Max Lift from Outdoor to Indoor Unit	49-ft	Max Drop from Outdoor to Indoor Unit	49-ft
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ULTRA HEAT**ULTRA COOL****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)	4
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 FUNCTIONS¹See individual Indoor Unit
Controllers Functions¹ Not all Remote Controller functions are supported.**XK19 WIRED CONTROLLER FUNCTIONS²**

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.

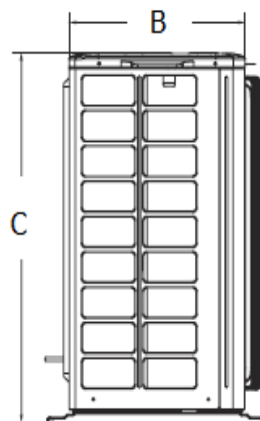
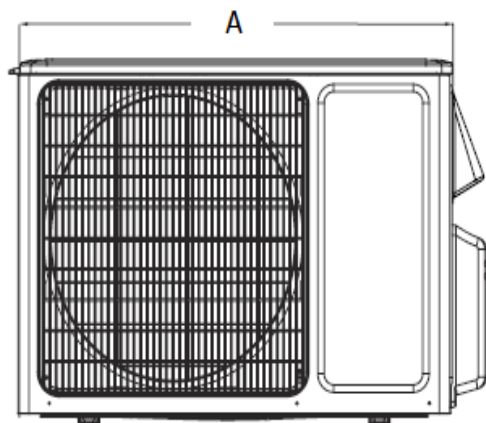
OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS

TM36H50

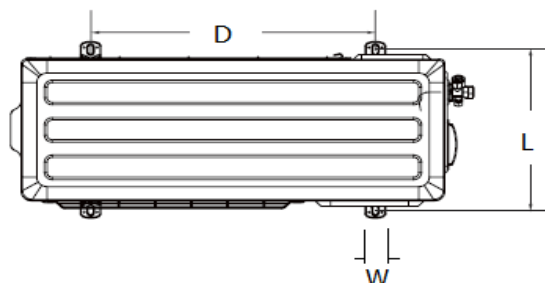
Units: inch

36,000 BTUH MODEL

Model #TM36H50 36,000 BTUH 230V



A (in)	40
B (in)	17.3
C (in)	43.5



D (in)	24.8
L (in)	16.2
W (in)	3.1

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

Weight (Net/Shipping) 280/298 lbs

Factory Supplied Piping Adapters

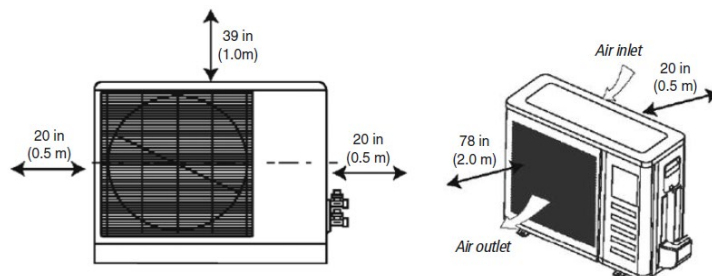
Adapter	P/N	Qty
3/8 (F) to 5/8 (M)	6654100009	3
3/8 (F) to 1/2 (M)	6654100013	4
1/4 (F) to 3/8 (M)	6654104	2

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

MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



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.

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EXTENDED RATINGS

TM36H50

ULTRA COOL

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 FWB				67°F FWB					
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
0°F	21827	16500	22800	18000	24000	19500								
5°F	21927	17196	23181	18162	25527	20029								
14°F	22968	18014	24264	19023	27384	21478								
23°F	25164	19740	26916	21113	30840	24188								
32°F	25758	45964	27663	49363	31994	57088								
41°F	23613	65750	25520	71058	29746	82822								
50°F	21549	81552	23437	88695	27533	104195								
59°F	30516	23933	32640	25598	35748	28029								
68°F	34560	27106	36720	28795	39240	30776								
77°F	34152	26790	36324	28491	38880	30497								
86°F	32472	25465	34632	27166	37800	29646								
95°F	30732	24103	32880	25781	36000	28236								
104°F	29244	22936	31380	24614	35064	27507								
113°F	27744	21757	29880	23435	33576	26328								

ULTRA HEAT

HEATING PERFORMANCE (BtuH)*

Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F FWB			61°F FWB			67°F FWB		
	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP
-31°F	23000	5.50	1.23	24000	5.72	1.23	24500	5.85	1.23
-22°F	25563	5.57	1.34	25910	5.73	1.33	24899	5.91	1.24
-13°F	28859	5.65	1.50	28373	5.81	1.43	27293	5.99	1.33
-5°F	33638	5.64	1.75	33072	5.79	1.67	31837	5.98	1.56
0°F	36089	5.73	1.85	35488	5.89	1.77	34105	6.08	1.64
5°F	36259	5.70	1.86	35648	5.86	1.78	34291	6.05	1.66
10°F	39753	5.76	2.02	39091	5.92	1.94	37581	6.11	1.80
17°F	41794	5.72	2.14	41097	5.88	2.05	39475	6.06	1.91
19°F	41758	5.50	2.23	41075	5.65	2.13	39443	5.83	1.98
24°F	40398	5.42	2.18	39787	5.58	2.09	38397	5.75	1.96
32°F	39260	5.19	2.22	38728	5.33	2.13	37514	5.50	2.00
41°F	40725	5.11	2.33	40247	5.26	2.24	39090	5.42	2.11
43°F	41822	5.10	2.40	41330	5.24	2.31	40199	5.41	2.18
47°F	45450	5.22	2.55	44663	5.36	2.44	42837	5.53	2.27
53°F	45900	4.74	2.84	45098	4.87	2.71	43272	5.03	2.52
59°F	42259	4.78	2.59	41513	4.92	2.47	39818	5.07	2.30
64°F	43158	4.39	2.88	42398	4.51	2.75	40678	4.65	2.56
70°F	43968	4.46	2.89	43208	4.58	2.76	41437	4.73	2.57
75°F	44588	4.07	3.21	43803	4.19	3.07	42031	4.32	2.85
78°F	44993	4.11	3.21	44208	4.22	3.07	42411	4.36	2.85

* Maximum system capacity
TC- Total Capacity (BtuH)
COP- Coefficient of Performance

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OPERATIONAL PERFORMANCE SPECIFICATIONS

TM36H50

COOLING CAPACITY (BTUH)

Indoor Units Combinations	Rated System (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)
9+9	19,500	9,250	9,250	NA	NA
9+12	21,000	9,000	12,000	NA	NA
9+18	25,500	8,000	17,500	NA	NA
9+24	26,300	7,000	19,300	NA	NA
12+12	24,000	12,000	12,000	NA	NA
12+18	28,400	11,400	17,000	NA	NA
12+24	32,700	10,000	22,700	NA	NA
18+18	31,680	15,840	15,840	NA	NA
18+24	33,190	14,240	18,950	NA	NA
24+24	35,120	17,560	17,560	NA	NA
9+9+9	24,600	8,200	8,200	8,200	NA
9+9+12	24,900	7,500	7,500	9,900	NA
9+9+18	30,200	7,200	7,200	15,800	NA
9+9+24	34,900	6,600	6,600	21,700	NA
9+12+12	29,600	8,000	10,800	10,800	NA
9+12+18	32,900	7,400	9,800	15,700	NA
9+12+24	36,100	6,800	9,100	20,200	NA
9+18+18	36,100	6,500	14,800	14,800	NA
12+12+12	31,200	10,400	10,400	10,400	NA
12+12+18	35,100	9,960	9,960	15,180	NA
12+12+24	37,500	9,300	9,300	18,900	NA
12+18+18	37,500	8,900	14,300	14,300	NA
9+9+9+9	35,480	8,870	8,870	8,870	8,870
9+9+9+12	36,490	8,460	8,460	8,460	11,110
9+9+9+18	38,350	7,650	7,650	7,650	15,400
9+9+12+12	39,000	8,300	8,300	11,200	11,200
9+9+12+18	39,840	7,470	7,470	9,960	14,940
9+12+12+12	39,280	7,000	10,760	10,760	10,760
9+12+12+18	40,010	6,760	9,600	9,600	14,050
12+12+12+12	39,800	9,950	9,950	9,950	9,950

Note:

1) It is critical to size the outdoor unit for the entire building load and each indoor unit for it's individual zone load.

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

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OPERATIONAL PERFORMANCE SPECIFICATIONS

TM36H50

HEATING 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)
9+9	19,000	9,500	9,500	NA	NA
9+12	22,500	9,500	13,000	NA	NA
9+18	27,800	9,300	18,500	NA	NA
9+24	29,600	8,000	21,600	NA	NA
12+12	26,000	13,000	13,000	NA	NA
12+18	29,500	12,000	17,500	NA	NA
12+24	34,800	11,200	23,600	NA	NA
18+18	34,700	17,400	17,300	NA	NA
18+24	37,800	16,200	21,600	NA	NA
24+24	38,400	19,200	19,200	NA	NA
9+9+9	27,000	9,000	9,000	9,000	NA
9+9+12	28,800	9,000	9,000	10,800	NA
9+9+18	35,000	8,800	8,800	17,400	NA
9+9+24	39,600	7,900	7,900	23,800	NA
9+12+12	33,000	9,000	12,000	12,000	NA
9+12+18	36,150	8,650	11,200	16,300	NA
9+12+24	40,940	7,900	10,240	22,800	NA
9+18+18	41,020	7,560	16,730	16,730	NA
12+12+12	36,000	12,000	12,000	12,000	NA
12+12+18	40,100	11,400	11,400	17,300	NA
12+12+24	42,500	10,620	10,620	21,260	NA
12+18+18	42,500	10,130	16,185	16,185	NA
9+9+9+9	44,000	11,000	11,000	11,000	11,000
9+9+9+12	30,780	10,260	10,260	10,260	13,420
9+9+9+18	26,760	8,920	8,920	8,920	18,200
9+9+12+12	32,130	9,630	9,630	12,870	12,870
9+9+12+18	28,500	8,550	8,550	11,400	17,100
9+12+12+12	32,900	8,120	12,390	12,390	12,390
9+12+12+18	29,370	8,010	10,680	10,680	16,200
12+12+12+12	45,880	11,470	11,470	11,470	11,470

Note:

1) It is critical to size the outdoor unit for the entire building load and each indoor unit for its individual

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

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