


Submittal Data: 0 <input type="checkbox"/> <input type="checkbox"/> 2		Heat Pump System	
Job Name		Location	
Purchaser		Date	
Submitted To		Engineer	
Submitted To		For <input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction	
Unit Designation		Schedule No.	
<b>GENERAL FEATURES</b> -Up to Five Indoor Units (5-Port) -G10 DC Inverter Technology - 2 Stage / 3 Cylinder -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			
<b>System Ratings</b>		<b>Outdoor Unit Data</b>	
Rated Cooling Capacity	42,000 BTUH	<b>Compressor</b> Type	DC Inverter Driven Rotary
Cooling Capacity (min-max)	8,871-42,991 BTUH	RLA	28.5 A
Rated Heating Capacity	42,000 BTUH	Starting Current	5.0 A
Heating Capacity (min-max)	8,871-46,062 BTUH	<b>Fan Motor</b> Output Power	90 W
SEER/EER	23.0 / 9.0	FLA	1.0 A
HSPF/COP	10.0 / 3.42	Air Flow (Max)	3,060 CFM
<b>Operating Range</b>		<b>Sound Pressure Level</b>	
Cooling (min-max)	0 - 115°F -18 - 46°C	Cooling	62 dB(A)
Heating (min-max)	-31 - 75°F -35 - 24°C	Heating	62 dB(A)
<b>Power Supply</b>		<b>Dimensions &amp; Weights</b>	
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Unit Dimensions Overall (WxDxH)*	42.8 x 17.3 x 43.4-in
Voltage Range	187 - 253 V	* including Valve Covers and Grilles	
Main Power Wire Size	8-2 AWG	Weight (Net/Shipping)	282/300-lbs
Interconnecting Cable Wire Size	14-4 AWG	Min. Number of Indoor Units	2
MCA	38.0 A	Max. Number of Indoor Units	5
MOCP/Breaker Size	40 A	<b>Refrigerant Piping Data</b>	
		Refrigerant Type	R410A
		Refrigerant Charge	176.4-oz
		Additional Charge Per Line Length	0.2-oz/ft
		Connection Method-Flared	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



**ULTRA HEAT**

**ULTRA COOL**

<b>SYSTEM FEATURES</b>	
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 (-22°F - 75°F)	YES
Ultra Cooling (0°F - 115°F)	YES
XK19 Wired Controller Interface	YES

**REMOTE CONTROLLER FUNCTIONS<sup>1</sup>**

See individual Indoor Unit  
Controllers Functions

<sup>1</sup> Not all Remote Controller functions are supported.

**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

<sup>2</sup> Note: Some indoor models may not support specific system features or functions.

# OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS

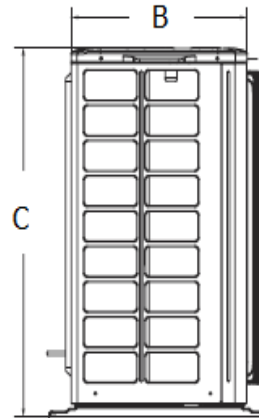
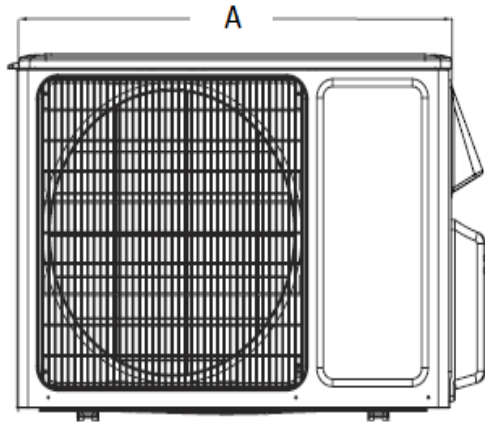
# TM42H50

**ULTRA HEAT** **ULTRA COOL**

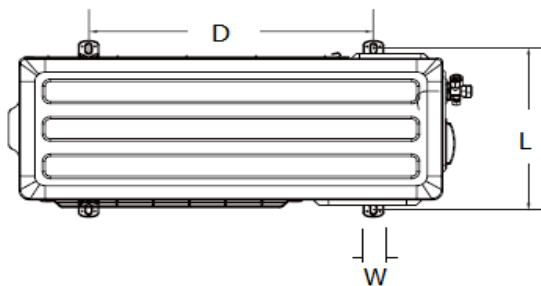
## 42,000 BTUH MODEL

Model #TM42H50 42,000 BTUH 230V

Units: inch



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)	282/300 lbs
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### Factory Supplied Piping Adapters

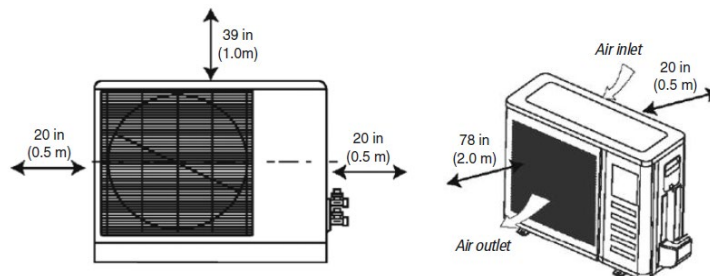
Adapter	P/N	Qty
3/8 (F) to 5/8 (M)	6654100009	3
3/8 (F) to 1/2 (M)	6654100013	4
1/4 (F) to 3/8 (M)	6654104	2

### 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

# TM42H50

## ULTRA COOL

## 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°FWB		67°FWB	
	TC	SHC	TC	SHC	TC	SHC
0°F	24000	19500	26000	20500	28900	22300
5°F	25582	20062	27045	21189	29782	23368
14°F	26796	21016	28308	22193	31948	25057
23°F	29358	23030	31402	24632	35980	28220
32°F	30051	53625	32274	57590	37327	66603
41°F	27549	76709	29773	82901	34704	96626
50°F	25141	95143	27343	103477	32122	121561
59°F	35602	27922	38080	29865	41706	32701
68°F	40320	31623	42840	33594	45780	35906
77°F	39844	31254	42378	33240	45360	35580
86°F	37884	29709	40404	31694	44100	34587
95°F	35854	28121	38360	30078	42000	32942
104°F	34118	26759	36610	28716	40908	32091
113°F	32368	25384	34860	27341	39172	30716

## ULTRA HEAT

### HEATING PERFORMANCE (BtuH)\*

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	27000	5.50	1.44	28000	5.70	1.44	26000	5.85	1.30
-22°F	28744	5.57	1.51	29134	5.73	1.49	27998	5.91	1.39
-13°F	32450	5.65	1.68	31904	5.81	1.61	30689	5.99	1.50
-5°F	37824	5.64	1.97	37188	5.79	1.88	35799	5.98	1.76
0°F	40580	5.73	2.08	39905	5.89	1.99	38349	6.08	1.85
5°F	40771	5.70	2.10	40085	5.86	2.00	38558	6.05	1.87
10°F	44700	5.76	2.27	43955	5.92	2.18	42258	6.11	2.03
17°F	42723	5.72	2.19	42011	5.88	2.10	40352	6.06	1.95
19°F	42686	5.50	2.28	41988	5.65	2.18	40320	5.83	2.03
24°F	41296	5.42	2.23	40671	5.58	2.14	39250	5.75	2.00
32°F	40132	5.19	2.27	39589	5.33	2.18	38348	5.50	2.04
41°F	41630	5.11	2.39	41141	5.26	2.29	39959	5.42	2.16
43°F	42751	5.10	2.46	42248	5.24	2.36	41093	5.41	2.23
47°F	46460	5.22	2.61	45655	5.36	2.50	43789	5.53	2.32
53°F	46920	4.74	2.90	46101	4.87	2.77	44234	5.03	2.58
59°F	43198	4.78	2.65	42435	4.92	2.53	40703	5.07	2.35
64°F	44117	4.39	2.95	43341	4.51	2.82	41582	4.65	2.62
70°F	44945	4.46	2.96	44169	4.58	2.83	42358	4.73	2.63
75°F	45579	4.07	3.28	44777	4.19	3.14	42965	4.32	2.92
78°F	45993	4.11	3.28	45191	4.22	3.14	43353	4.36	2.92

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

**ULTRA COOL**

**COOLING CAPACITY (BTUH)**

<b>Indoor Units Combinations</b>	<b>Rated System (BtuH)</b>	<b>Indoor Unit A (BtuH)</b>	<b>Indoor Unit B (BtuH)</b>	<b>Indoor Unit C (BtuH)</b>	<b>Indoor Unit D (BtuH)</b>	<b>Indoor Unit E (BtuH)</b>
9+9	19,500	9,000	9,000	NA	NA	NA
9+12	21,000	9,000	12,000	NA	NA	NA
9+18	25,500	8,000	17,500	NA	NA	NA
9+24	26,300	7,000	19,300	NA	NA	NA
12+12	24,000	12,000	12,000	NA	NA	NA
12+18	28,400	11,400	17,000	NA	NA	NA
12+24	32,700	10,000	22,700	NA	NA	NA
18+18	31,680	15,840	15,840	NA	NA	NA
18+24	33,190	14,240	18,950	NA	NA	NA
24+24	35,120	17,560	17,560	NA	NA	NA
9+9+9	24,600	8,200	8,200	8,200	NA	NA
9+9+12	24,900	7,500	7,500	9,900	NA	NA
9+9+18	30,200	7,200	7,200	15,800	NA	NA
9+9+24	34,900	6,600	6,600	21,700	NA	NA
9+12+12	29,600	8,000	10,800	10,800	NA	NA
9+12+18	32,900	7,400	9,800	15,700	NA	NA
9+12+24	36,100	6,800	9,100	20,200	NA	NA
9+18+18	36,100	6,500	14,800	14,800	NA	NA
12+12+12	31,200	10,400	10,400	10,400	NA	NA
12+12+18	35,100	9,960	9,960	15,180	NA	NA
12+12+24	37,500	9,300	9,300	18,900	NA	NA
12+18+18	37,500	8,900	14,300	14,300	NA	NA
9+9+9+9	35,480	8,870	8,870	8,870	8,870	NA
9+9+9+12	36,490	8,460	8,460	8,460	11,110	NA
9+9+9+18	38,350	7,650	7,650	7,650	15,400	NA
9+9+12+12	39,000	8,300	8,300	11,200	11,200	NA
9+9+12+18	39,840	7,470	7,470	9,960	14,940	NA
9+12+12+12	39,280	7,000	10,760	10,760	10,760	NA
9+12+12+18	40,010	6,760	9,600	9,600	14,050	NA
12+12+12+12	39,800	9,950	9,950	9,950	9,950	NA
9+9+9+9+9	39,600	7,920	7,920	7,920	7,920	7,920
9+9+9+9+12	39,700	7,430	7,430	7,430	7,430	9,980

Note:

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

**TM42H50**

**ULTRA HEAT**

**HEATING CAPACITY (BTUH)**

Indoor Units Combinations	Rated System (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)	Indoor Unit E (BtuH)
9+9	19,000	9,500	9,500	NA	NA	NA
9+12	22,500	9,500	13,000	NA	NA	NA
9+18	27,800	9,300	18,500	NA	NA	NA
9+24	29,600	8,000	21,600	NA	NA	NA
12+12	26,000	13,000	13,000	NA	NA	NA
12+18	29,500	12,000	17,500	NA	NA	NA
12+24	34,800	11,200	23,600	NA	NA	NA
18+18	34,700	17,400	17,300	NA	NA	NA
18+24	37,800	16,200	21,600	NA	NA	NA
24+24	38,400	19,200	19,200	NA	NA	NA
9+9+9	27,000	9,000	9,000	9,000	NA	NA
9+9+12	28,800	9,000	9,000	10,800	NA	NA
9+9+18	35,000	8,800	8,800	17,400	NA	NA
9+9+24	39,600	7,900	7,900	23,800	NA	NA
9+12+12	33,000	9,000	12,000	12,000	NA	NA
9+12+18	36,150	8,650	11,200	16,300	NA	NA
9+12+24	40,940	7,900	10,240	22,800	NA	NA
9+18+18	41,020	7,560	16,730	16,730	NA	NA
12+12+12	36,000	12,000	12,000	12,000	NA	NA
12+12+18	40,100	11,400	11,400	17,300	NA	NA
12+12+24	42,500	10,620	10,620	21,260	NA	NA
12+18+18	42,500	10,130	16,185	16,185	NA	NA
9+9+9+9	44,000	11,000	11,000	11,000	11,000	NA
9+9+9+12	30,780	10,260	10,260	10,260	13,420	NA
9+9+9+18	26,760	8,920	8,920	8,920	18,200	NA
9+9+12+12	32,130	9,630	9,630	12,870	12,870	NA
9+9+12+18	28,500	8,550	8,550	11,400	17,100	NA
9+12+12+12	32,900	8,120	12,390	12,390	12,390	NA
9+12+12+18	29,370	8,010	10,680	10,680	16,200	NA
12+12+12+12	45,880	11,470	11,470	11,470	11,470	NA
9+9+9+9+9	45,500	9,100	9,100	9,100	9,100	9,100
9+9+9+9+12	45,640	8,540	8,540	8,540	8,540	11,480

**Note:**

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