



# MULTI-ROOM DUCTLESS HEAT-PUMP SYSTEMS

## 36000 BTU / H WALL MOUNTED HEAT- PUMP SYSTEM

### SUBMITTAL DATA: TM36H40

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  
10064023 (NON-DUCTED) &  
10064024 (DUCTED)**



SYSTEM RATINGS		OUTDOOR UNIT DATA	
<b>Non-Ducted Indoor</b>		<b>Compressor</b>	
Rated Cooling Capacity	34,000 BTUH	Type	DC Inverter Driven Rotary
Cooling Capacity (min-max)	8,871-35,826 BTUH	RLA	15.6 A
Rated Heating Capacity	42,500 BTUH	<b>Compressor Crankcase and Base Pan Heaters included</b>	
Heating Capacity (min-max)	8,871-44,356 BTUH	<b>Fan Motor</b>	
SEER/EER	21.0/12.5	Output Power	170 W
HSPF/COP	11.5/3.7	FLA	0.8 A
<b>Ducted Indoor</b>		Air Flow (Max)	4,531 CFM
Rated Cooling Capacity	34,000 BTUH	<b>Sound Pressure Level</b>	
Cooling Capacity (min-max)	13,400-37,000 BTUH	Cooling	61 db(A)
Rated Heating Capacity	42,500 BTUH	Heating	61 db(A)
Heating Capacity (min-max)	7,231-44,745 BTUH	<b>Dimensions &amp; Weights</b>	
SEER/EER	16.0/11.5	Unit Dimensions (LxHxD)	42.8 x 43.4 x 17.3 -in
HSPF/COP	8.5/3.0	Weight (Net/Shipping)	198.4/216.0 LBS
<b>Operating Range</b>		Min. Number of Indoor Units	1
Cooling (min-max)	0 ~ 118°F	Max. Number of Indoor Units	5
	-18 ~ 48°C	<b>REFRIGERANT PIPING DATA</b>	
Heating (min-max)	-5 ~ 86°F	Refrigerant Type	R410A
	-21 ~ 30°C	Refrigerant Charge	128.8 oz
<b>Power Supply</b>		Additional Charge Per Line Length	0.21-oz/ft
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Connection Method=	Flared
Voltage Range	187 - 253 V	Factory Charge for Total Line Length	131-ft
Main Power Wire Size	8-2 AWG	Total Refrigerant Pipe Length	246-ft
Interconnecting Cable Wire Size	14-4 AWG	Max Refrigerant Piping Length to any Indoor Unit	82-ft
MCA	23 A	Min Refrigerant Piping Length to any Indoor Unit	10-ft
MOCP/Breaker Size	35 A	Max Elevation between Indoor Units	25-ft
		Max Lift from Outdoor to Indoor Unit	49-ft
		Max Drop from Outdoor to Indoor Unit	49-ft

### GENERAL FEATURES

- Up to 5 Indoor Units(5-Port)
- EnergyStar Rated
- G10 DC Inverter Technology
- Quiet Operation - Both Indoor & Outdoor
- Acrylic Resin/Anti-Corrosion Coil Protection
- Intelligent Defrost
- Auto Restart on Power Outages
- Multi-point Diagnostics

TOSOT.COM





## FEATURES & FUNCTION SUMMARY: TM36H40

SYSTEM FEATURES	
Inverter Type	G10
Ultra Low Frequency Torque Control	YES
Power Factor Correction	YES
Compressor Type	Inverter Rotary
Refrigerant Type	R410A
Basepan With Electric Heater	YES
Compressor With Electric Heater	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
Low Ambient Cooling	YES
XK19 Wired Controller Interface	YES
<b>REMOTE CONTROLLER FUNCTIONS</b>	<b>See individual Indoor Unit Controllers Functions</b>
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

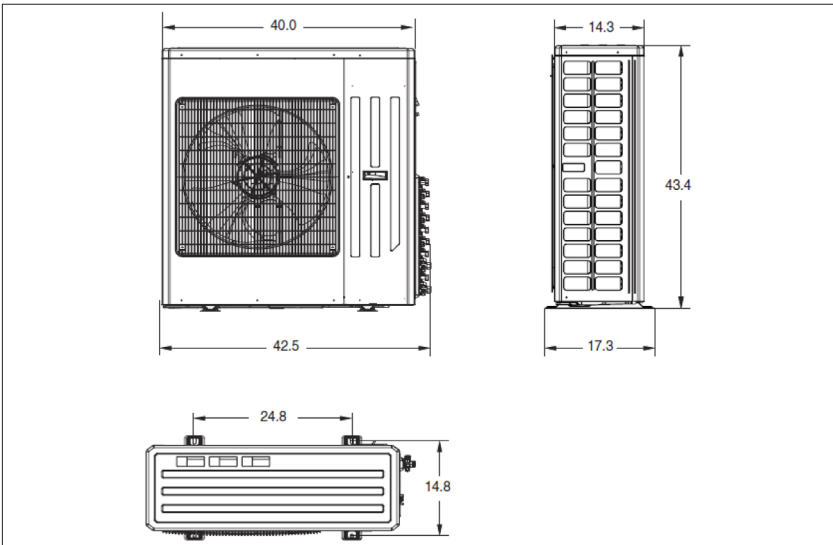
Note: Some indoor models may not support specific system features or functions.

## DIMENSIONAL SPECIFICATIONS: TM36H40

### 36,000 BTUH MODEL

Model # TM36H40 36,000 BTUH 230V

Units: inch



#### 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

#### Liquid Line Port Size

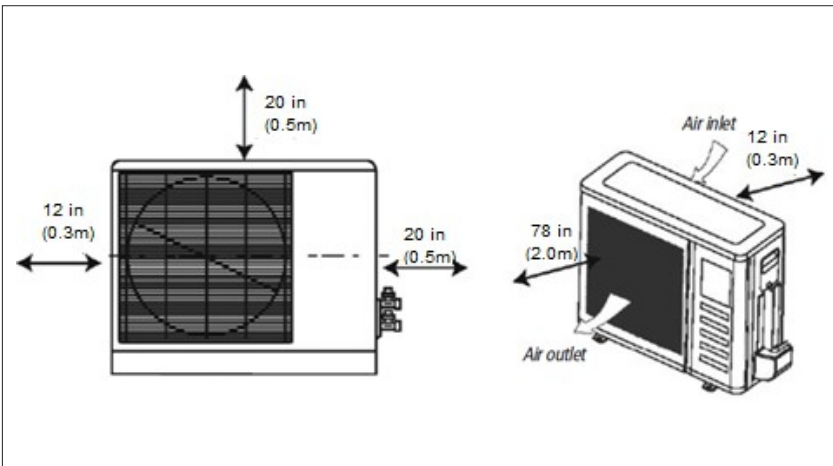
Port A	1/4-in OD Flared
Port B	1/4-in OD Flared
Port C	1/4-in OD Flared
Port D	1/4-in OD Flared
Port E	1/4-in OD Flared

#### Factory Supplied Piping Adapters

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

### MINIMUM SPACING REQUIREMENTS

Units: inch



#### 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.



## OPERATIONAL PERFORMANCE SPECIFICATIONS: TM36H40

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)	Indoor Unit E (BtuH)
9	9,000	9,000	Only one unit required for system to operate. Use data below when additional units are added.			
12	12,000	12,000				
18	17,000	17,000				
24	20,000	20,000				
9+9	18,000	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	30,000	10,000	20,000	NA	NA	NA
18+18	30,600	15,300	15,300	NA	NA	NA
18+24	33,100	14,200	18,900	NA	NA	NA
24+24	33,600	16,800	16,800	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	29,700	7,200	7,200	15,300	NA	NA
9+9+24	30,900	6,600	6,600	17,700	NA	NA
9+12+12	29,600	8,000	10,800	10,800	NA	NA
9+12+18	31,900	7,400	9,800	14,700	NA	NA
9+12+24	34,100	6,800	9,100	18,200	NA	NA
9+18+18	33,900	6,500	13,700	13,700	NA	NA
12+12+12	31,200	10,400	10,400	10,400	NA	NA
12+12+18	32,720	9,360	9,360	14,000	NA	NA
12+12+24	32,900	8,300	8,300	16,300	NA	NA
12+18+18	32,760	8,160	12,300	12,300	NA	NA
9+9+9+9	34,000	8,500	8,500	8,500	8,500	NA
9+9+9+12	34,290	7,830	7,830	7,830	10,800	NA
9+9+9+18	34,072	6,824	6,824	6,824	13,600	NA
9+9+12+12	34,040	7,300	7,300	9,720	9,720	NA
9+9+12+18	34,600	6,500	6,500	8,640	12,960	NA
9+12+12+12	34,440	6,840	9,200	9,200	9,200	NA
12+12+12+12	35,040	8,760	8,760	8,760	8,760	NA
9+9+9+9+9	27,600	6,900	6,900	6,900	6,900	6,900
9+9+9+9+12	32,640	6,500	6,500	6,500	6,500	6,640

Capacity data is based on the following conditions :

Cooling Nominal Test Conditions	Heating Nominal Test Conditions
Indoor: 80°F DB/67°F WB	Indoor: 70°F DB/60°F WB
Outdoor: 95°F DB/75°F WB	Outdoor: 47°F DB/43°F WB





## OPERATIONAL PERFORMANCE SPECIFICATIONS: TM36H40

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)	Indoor Unit E (BtuH)
9	9,500	9,500	NA	NA	NA	NA
12	13,000	13,000	NA	NA	NA	NA
18	18,500	18,500	NA	NA	NA	NA
24	22,000	22,000	NA	NA	NA	NA
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	33,200	11,200	22,000	NA	NA	NA
18+18	35,000	17,500	17,500	NA	NA	NA
18+24	36,000	15,000	21,000	NA	NA	NA
24+24	38,000	19,000	19,000	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	36,600	7,800	7,800	21,000	NA	NA
9+12+12	33,000	9,000	12,000	12,000	NA	NA
9+12+18	35,150	8,650	11,200	15,300	NA	NA
9+12+24	37,640	7,900	9,240	20,500	NA	NA
9+18+18	37,960	7,560	15,200	15,200	NA	NA
12+12+12	36,000	12,000	12,000	12,000	NA	NA
12+12+18	37,200	10,600	10,600	16,000	NA	NA
12+12+24	38,000	9,500	9,500	19,000	NA	NA
12+18+18	38,300	9,300	14,500	14,500	NA	NA
9+9+9+9	42,000	10,500	10,500	10,500	10,500	NA
9+9+9+12	42,000	9,600	9,600	9,600	13,200	NA
9+9+9+18	41,940	8,400	8,400	8,400	16,740	NA
9+9+12+12	42,000	9,000	9,000	12,000	12,000	NA
9+9+12+18	42,680	8,000	8,000	10,680	16,000	NA
9+12+12+12	40,800	8,100	10,900	10,900	10,900	NA
12+12+12+12	42,720	10,680	10,680	10,680	10,680	NA
9+9+9+9+9	42,750	8,550	8,550	8,550	8,550	8,550
9+9+9+9+12	42,240	7,920	7,920	7,920	7,920	10,560

Capacity data is based on the following conditions :

Cooling Nominal Test Conditions	Heating Nominal Test Conditions
Indoor: 80°F DB/67°F WB	Indoor: 70°F DB/60°F WB
Outdoor: 95°F DB/75°F WB	Outdoor: 47°F DB/43°F WB



## EXTENDED RATINGS: TM36H40

### COOLING PERFORMANCE

DB WB		Indoor Ambient Temperature											
		70°F (21°C)			75°F (24°C)			80°F (27°C)			90°F (32°C)		
		59°F (15°C)			63°F (17°C)			67°F (19°C)			73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-4°F (-18°C)	20,420	16,010	1,200	23,030	18,060	1,270	24,340	19,090	1,320	27,430	21,510	1,410
	5°F (-15°C)	20,940	16,420	1,200	23,620	18,530	1,280	25,270	19,820	1,320	28,130	22,030	1,410
	14°F (-10°C)	21,690	17,010	1,220	24,470	19,190	1,300	25,860	20,280	1,340	29,150	22,860	1,440
	23°F (-5°C)	23,770	18,640	1,220	27,080	21,240	1,300	29,130	22,840	1,330	32,040	25,130	1,430
	32°F (0°C)	24,979	19,588	1,222	28,455	22,319	1,291	29,261	22,943	1,335	33,681	25,057	1,395
	41°F (5°C)	26,260	20,593	1,285	29,914	23,463	1,358	30,762	24,119	1,403	35,409	26,342	1,467
	50°F (10°C)	27,355	21,451	1,338	31,161	24,441	1,414	32,043	25,124	1,462	36,884	27,440	1,528
	59°F (15°C)	28,820	22,600	1,410	32,830	25,750	1,490	33,760	26,470	1,540	38,860	28,910	1,610
	68°F (20°C)	32,620	29,556	2,010	33,422	30,044	1,995	34,582	31,733	2,010	41,526	33,695	2,025
	77°F (25°C)	35,145	30,300	2,450	39,240	31,409	2,435	38,796	32,791	2,440	45,040	34,872	2,430
	86°F (30°C)	35,486	30,368	3,120	38,438	32,364	3,125	38,984	33,012	3,160	45,211	34,650	3,185
	95°F (35°C)	32,176	28,781	3,300	35,827	31,255	3,400	36,083	31,921	3,335	41,014	34,275	3,405
104°F (40°C)	27,451	26,444	3,075	30,095	28,543	3,085	30,795	29,856	3,115	35,452	32,671	3,145	
113°F (45°C)	23,544	23,203	2,765	25,642	24,926	2,790	26,956	25,779	2,800	29,686	28,833	2,825	
118°F (48°C)	16,382	16,232	1,856	17,504	17,242	1,911	19,040	18,354	1,986	20,186	19,923	2,023	

### HEATING PERFORMANCE

DB WB		Indoor Ambient Temperature											
		70°F (21°C)			75°F (24°C)			80°F (27°C)			90°F (32°C)		
		59°F (15°C)			63°F (17°C)			67°F (19°C)			73°F (23°C)		
		TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP
Outdoor Ambient Temperature (DB)	-5°F (-21°C)	18,126	1,620	3.28	17,756	1,650	3.15	17,059	1,680	2.98	16,652	1,710	2.85
	0°F (-18°C)	18,500	1,650	3.29	17,960	1,680	3.13	17,630	1,740	2.97	17,160	1,780	2.83
	5°F (15°C)	19,510	1,720	3.32	18,950	1,750	3.17	18,590	1,820	2.99	18,110	1,860	2.85
	7°F (14°C)	20,010	1,750	3.35	19,050	1,790	3.12	19,360	1,870	3.03	18,860	1,920	2.88
	17°F (8°C)	20,940	1,790	3.43	20,330	1,830	3.26	19,950	1,900	3.08	19,420	1,940	2.93
	28°F (2°C)	23,660	1,910	3.63	23,040	1,950	3.46	22,380	2,020	3.25	22,110	2,070	3.13
	38°F (3°C)	29,420	2,200	3.92	28,800	2,240	3.77	28,140	2,330	3.54	27,870	2,380	3.43
	47°F (8°C)	33,250	2,290	4.26	32,240	2,330	4.06	31,600	2,420	3.83	30,730	2,480	3.63
	57°F (14°C)	34,350	2,330	4.32	33,310	2,380	4.10	32,650	2,470	3.87	31,740	2,520	3.69
	68°F (20°C)	35,750	2,410	4.35	34,660	2,460	4.13	33,970	2,550	3.90	33,030	2,610	3.71
	77°F (25°C)	36,580	2,470	4.34	35,470	2,520	4.13	34,760	2,620	3.89	33,800	2,680	3.70

LEGEND:	DB - Dry Bulb
	WB --- Wet Bulb
	TC --- Total Capacity (BtuH)
	SC --- Sensible Capacity (BtuH)
	Input Power---(Watts)
	COP---Coefficient Of Performance

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