



MULTI ZONE 21



MULTI ZONE HEAT PUMP SYSTEM

TM24H40		
Performance (Non-Ducted Indoor)		
Cooling Rated Capacity	Btu/h	24,000
Cooling Cap. Range Min-Max	Btu/h	7,500~33,000
SEER/EER		21.0/12.5
Heating Rated Capacity	Btu/h	26,000
Heating Cap. Range Min-Max	Btu/h	7,500~35,000
HSPF/COP		11.0/3.7
Performance (Ducted Indoor)		
Cooling Rated Capacity	Btu/h	24,000
Cooling Cap. Range Min-Max	Btu/h	7,500~33,000
SEER/EER		16.0/10.5
Heating Rated Capacity	Btu/h	26,000
Heating Cap. Range Min-Max	Btu/h	7,500~35,000
HSPF/COP		8.5/3.2
Electrical		
Voltage, Phase, Cycle	V-Ph-Hz	208/230-1-60
Voltage Range	V	187~253
MCA	A	23
MOP	A	30
Compressor RLA	A	15.8
Fan Motor FLA	A	0.6



Piping		
Total Pipe Length	ft	197
Pipe Length to Any Indoor Unit Min-Max	ft	10~65
Max Elevation between Indoor Units	ft	33
Max Lift/Drop from ODU to IDU	ft	33
Liquid Line	in	1/4
Vapor Line	in	3/8
Connection Type		Flared
Operating Range		
Cooling Outdoor DB	°F	0~118
Heating Outdoor DB	°F	-4~75
System Data		
Compressor Type		DC Inverter Rotary
Refrigerant Type		R410A
Pre-Charge	oz	77.6
Pre-Charge Length	ft	98
Additional Charge	oz/ft	0.21
Refrigerant Control		EXV
ODU Sound Pressure (Cooling/Heating)	dB(A)	59/59
Number of IDUs Min-Max		2-3



Job Name:		Date:	
Reference #:			
Signature:			

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COOLING PERFORMANCE*								
Outdoor Ambient DB	Indoor Ambient Temperature							
	68°F DB		73°F DB		80°F DB		82°F DB	
	57°F WB		61°F WB		67°F WB		68°F WB	
	TC	SC	TC	SC	TC	SC	TC	SC
0°F	18,403	14,433	19,578	15,349	22,395	17,565	22,843	17,916
5°F	18,972	14,883	20,183	15,823	23,088	18,112	23,780	18,656
14°F	19,963	15,657	21,090	16,534	23,802	18,668	24,761	19,418
23°F	20,443	16,036	21,866	17,152	25,054	19,651	26,136	20,500
32°F	21,669	16,992	23,301	18,271	26,373	20,680	27,797	21,797
41°F	23,050	18,076	24,785	19,437	27,761	21,770	29,704	23,294
50°F	22,834	17,909	24,552	19,257	27,217	21,347	29,394	23,055
59°F	22,778	17,864	24,363	19,107	26,683	20,922	29,128	22,845
68°F	23,040	18,070	24,480	19,197	26,160	20,517	28,080	22,025
77°F	22,115	17,348	23,497	18,431	25,647	20,117	27,479	21,552
86°F	21,600	16,939	23,037	18,071	25,144	19,720	26,940	21,127
95°F	21,044	16,505	22,515	17,653	24,651	19,335	26,911	21,107
104°F	20,289	15,913	21,770	17,076	24,326	19,083	26,224	20,567
113°F	19,764	15,499	21,254	16,663	23,810	18,670	25,708	20,763
115°F	19,248	15,095	20,730	16,258	23,294	18,265	25,192	19,758

HEATING PERFORMANCE*				
Outdoor Ambient DB	Indoor Ambient Temperature			
	68°F DB	73°F DB	80°F DB	86°F DB
	TC	TC	TC	TC
-4°F	19,802	19,469	19,112	18,683
0°F	21,457	21,100	20,695	20,231
6°F	22,636	22,255	21,838	21,338
10°F	23,577	23,184	22,743	22,231
16°F	24,291	23,887	23,422	22,898
19°F	24,756	24,351	23,875	23,339
24°F	26,287	25,890	25,446	24,935
32°F	27,031	26,665	26,257	25,786
41°F	27,813	27,486	27,102	26,670
43°F	28,562	28,226	27,851	27,419
47°F	29,896	29,378	28,786	28,102
53°F	30,192	29,665	29,073	28,379
59°F	30,886	30,340	29,730	29,027
64°F	31,543	30,988	30,368	29,646
70°F	32,135	31,580	30,941	30,211
75°F	32,588	32,014	31,376	30,627

LEGEND TC --- Total Net Cooling Capacity (BtuH)
 DB --- Dry Bulb SC --- Sensible Capacity (BtuH)
 WB --- Wet Bulb Input Power---(Watts)

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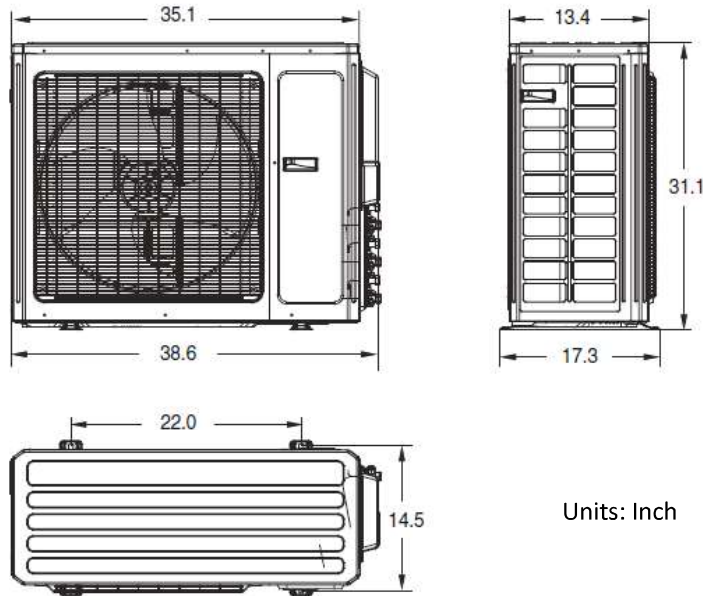


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OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS



Units: Inch

Suction/Gas Line Port Size

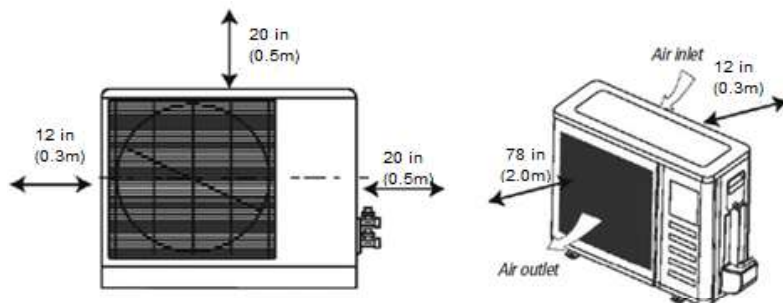
Port A	3/8-in OD Flared
Port B	3/8-in OD Flared
Port C	3/8-in OD Flared

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

Factory Supplied Piping Adapters

Adapter	P/N	Qty
3/8 (F) to 1/2 (M)	6643008	2



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.

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OPERATIONAL PERFORMANCE SPECIFICATIONS

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	21,000	9,000	12,000	NA	NA
9K + 18K	25,000	8,400	16,600	NA	NA
12K + 12K	24,000	12,000	12,000	NA	NA
12K + 18K	25,000	10,000	15,000	NA	NA
18K + 18K	25,500	12,750	12,750	NA	NA
9K + 9K + 9K	26,001	8,667	8,667	8,667	NA
9K + 9K + 12K	26,000	8,000	8,000	10,000	NA
9K + 9K + 18K	26,000	7,000	7,000	12,000	NA
9K + 12K + 12K	26,000	6,000	10,000	10,000	NA
12K + 12K + 12K	26,001	8,667	8,667	8,667	NA

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)
9K + 9K	19,000	9,500	9,500	NA	NA
9K + 12K	22,500	9,500	13,000	NA	NA
9K + 18K	27,000	9,000	18,000	NA	NA
12K + 12K	26,000	13,000	13,000	NA	NA
12K + 18K	28,000	11,200	16,800	NA	NA
18K + 18K	28,500	14,250	14,250	NA	NA
9K + 9K + 9K	29,001	9,667	9,667	9,667	NA
9K + 9K + 12K	29,000	9,000	9,000	11,000	NA
9K + 9K + 18K	29,000	6,000	6,000	17,000	NA
9K + 12K + 12K	29,000	6,000	11,500	11,500	NA
12K + 12K + 12K	29,001	9,667	9,667	9,667	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

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MULTI ZONE HEAT PUMP SYSTEM

NON-DUCTED INDOOR UNIT

SAPPHIRE WALL MOUNTED INDOOR UNIT

Model			TW09HQ3D6DI(WIFI)	TW12HQ3D6DI(WIFI)	TW18HQ3D6DI(WIFI)	TW24HQ3D6DI(WIFI)
Capacity	Cooling	Btu/h	9000	12000(2900~15354)	18000(4094~21837)	22000(6800~30700)
	Heating	Btu/h	9000	12200(3071~18766)	18000(4094~24566)	24000(6800~32000)
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume	Indoor	m³/h	720/650/600/550/500/450/350	850/800/750/600/550/450/400	1250/1150/1050/950/850/780/600	1400/1300/1200/1100/1000/850/650
		CFM				
Sound Pressure Level	Indoor	dB(A)	43/40/38/36/33/31/19	49/46/43/40/37/34/22	51/48/45/42/39/36/34	54/49/46/43/40/37/34/27
Dimension(WxHxD)	Outline	inch	38-1/4x11-3/4x8-7/8	39-1/4x11-7/8x8-7/8	43-3/8x12-7/8x9-3/4	42-1/2x12-3/4x9-5/8
	Package	inch	41x14-7/8x8-7/8	41-3/4x15x12-5/8	45-1/4x16-1/4x13-3/4	45-1/8x15-3/4x13
Piping Connection	Liquid	inch	1/4	1/4	1/4	1/4
	Gas	inch	3/8	1/2	5/8	5/8
Net Weight/Gross Weight	Indoor	Kg	13.5/16.5	13.5/16.5	16.5/20	16/19.5
Loading Quantity	40'GP	sets	156	156	87	86
	40'HP	sets	180	180	107	108

LOMO WALL MOUNTED INDOOR UNIT

Model			TW09HQ2C2DI(WIFI)	TW12HQ2C2DI(WIFI)	TW18HQ2C2DI(WIFI)	TW24HQ2C2DI(WIFI)
Capacity	Cooling	Btu/h	9000(3099~9599)	12000(3100~13000)	18000(6800~20000)	22000(6824~27296)
	Heating	Btu/h	11000(1911~12000)	13000(2400~14000)	19800(7340~23500)	23000(6824~30708)
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume	Indoor	m³/h	640/490/410/290	680/490/410/290	950/830/700/570	1200/1100/1000/90
		CFM	376/288/241/170	400/288/241/171	559/488/412/335	706/647/588/530
Sound Pressure Level	Indoor	dB(A)	43/39/35/29	45/39/35/29	47/43/40/39	48/44/40/36
Dimension(WxHxD)	Outline	inch	33-1/4x11-3/8x8-1/4	33-1/4x11-3/8x8-1/4	38-1/4x11-3/4x8-7/8	42-1/2x12-3/4x9-5/8
	Package	inch	36-1/4x14-7/8x11-1/8	36-1/4x14-7/8x11-1/8	41x15-1/8x12-5/8	45-1/4x16-1/4x13-3/4
Piping Connection	Liquid	inch	1/4	1/4	1/4	1/4
	Gas	inch	3/8	1/2	5/8	5/8
Net Weight/Gross Weight	Indoor	Kg	10/12	10/12	12.5/15.5	15.5/19
Loading Quantity	20'GP	sets	300	300	230	172
	40'HP	sets	728/624	728/624	557/489	402/346

FLOOR CEILING TYPE INDOOR UNIT

Model			TM09HTDI	TM12HTDI	TM18HTDI	TM24HBDI
Capacity	Cooling	Btu/h	8500	11900	17000	22800
	Heating	Btu/h	9500	13100	18700	27400
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume	Indoor	m³/h	700/610/540/420	700/610/540/420	680/590/520/410	950/870/800/720
		CFM	38/35/30/26	38/35/30/26	38/35/30/27	38/35/31/27
Sound Pressure Level	Indoor	dB(A)	43/39/35/29	45/39/35/29	47/43/40/39	48/44/40/36
Dimension(WxHxD)	Outline	inch	34-1/4x26-1/8x9-1/4	34-1/4x26-1/8x9-1/4	34-1/4x26-1/8x9-1/4	47-1/4x26-1/8x9-1/4
	Package	inch	40-5/8x30-3/8x11-3/4	40-5/8x30-3/8x11-3/4	40-5/8x30-3/8x11-3/4	53-5/8x30-3/8x11-3/4
Piping Connection	Liquid	inch	1/4	1/4	1/4	3/8
	Gas	inch	3/8	1/2	1/2	5/8
Net Weight/Gross Weight	Indoor	Kg	25/30	25/30	25.5/30.5	33/40
Loading Quantity	20'GP	sets	231	231	231	175
	40'HP	sets	264	264	264	200



NON-DUCTED INDOOR UNIT

4-WAY CASSETTE INDOOR UNIT

Model			TM12HKDI	TM18HKDI	TM24HKDI
Capacity	Cooling	Btu/h	12000	14400	22800
	Heating	Btu/h	13000	16000	27400
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume		m³/h	650/560/520/450	710/670/590/450	1280/1220/1100/880
Sound Pressure Level	Indoor	dB(A)	44/41/38/34	47/45/41/35	47/45/41/36
Main body Dimension(WxHxD)	Outline	inch	23-1/2x23-1/2x9-1/2	23-1/2x23-1/2x9-1/2	33-1/8x33-1/8x9-1/2
	Package	inch	30-5/8x29x11-3/4	30-5/8x29x11-3/4	37-7/8x37-7/8x12-3/4
Panel Dimension(WxHxD)	Outline	inch	26-3/8x2x26-3/8	26-3/8x2x26-3/8	37-3/8x2-3/8x37-3/8
	Package	inch	30x4-1/8x30	30x4-1/8x30	40-5/8x5-1/4x40-7/8
Piping Connection	Liquid	inch	1/4	1/4	3/8
	Gas	inch	3/8	1/2	5/8
Loading Quantity	40'GP	sets	329	329	168
	40'HP	sets	376	376	192
Net Weight/Gross Weight (Main body)		Kg	20/24	20/24	26/32
Net Weight/Gross Weight (Panel)		Kg	3.5/5	3.5/5	7/11

CONSOLE TYPE INDOOR UNIT

Model			TM09HEDI	TM12HEDI	TM18HEDI
Capacity	Cooling	Btu/h	8800	11900	18000
	Heating	Btu/h	9500	12900	19000
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume		m³/h	500	600	650
Sound Pressure Level	Indoor	dB(A)	40/38/36/33/30/27/25	42/40/38/37/35/32/27	48/46/44/41/37/35/32
Dimension(WxHxD)	Outline	inch	27-1/2x8-1/2x23-5/8	27-1/2x8-1/2x23-5/8	27-1/2x8-1/2x23-5/8
	Package	inch	31x27-1/2x11-1/8	31x27-1/2x11-1/8	31x27-1/2x11-1/8
Piping Connection	Liquid	inch	1/4	1/4	1/4
	Gas	inch	3/8	3/8	1/2
Loading Quantity	20'GP	sets	181	181	181
	40'GP	sets	381/454	381/454	381/454
Net Weight/Gross Weight		Kg	15/18	15/18	15/18



DUCTED INDOOR UNIT

LOW-STATIC DUCT TYPE INDOOR UNIT

Model			TM09HFDI	TM12HFDI	TM18HFDI	TM21HFDI	TM24HFDI
Capacity	Cooling	Btu/h	8500	11900	15700	20400	22800
	Heating	Btu/h	9550	13100	18700	22600	27400
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume		m³/h	450	550	700	1000	1000
Sound Pressure Level	Indoor	dB(A)	37/31	39/32	41/33	42/34	42/34
Net Weight/Gross Weight		Kg	22/27	23/29	27/36	31/41	31/41
Piping Connection	Liquid	inch	1/4	1/4	1/4	3/8	3/8
	Gas	inch	3/8	3/8	1/2	5/8	5/8
Loading Quantity	20'GP	sets	108	108	90	72	72
	40'HP/40'HQ	sets	234/234	234/234	192/192	162/162	162/162
Dimension(WxHxD)	Outline	inch	27-1/2x24-1/4x7-7/8	27-1/2x24-1/4x7-7/8	35-3/8x24-1/4x7-7/8	43-1/4x24-1/4x7-7/8	43-1/4x24-1/4x7-7/8
	Package	inch	35-1/8x29-1/4x12	35-1/8x29-1/4x12	44-1/4x29-1/4x12	52-1/8x29-1/4x12	52-1/8x29-1/4x12

HIGH-STATIC DUCT TYPE INDOOR UNIT

Model			TM09HSFDI	TM12HSFDI	TM18HSFDI	TM24HSFDI
Capacity	Cooling	Btu/h	9000	12000	18000	24000
	Heating	Btu/h	9500	13000	19000	27000
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume		m³/h	430/360/320	490/420/360	700/530/490	950/770/690
Sound Pressure Level	Indoor	dB(A)	36/30/27/25	38/33/29/26	39/33/29/26	42/36/32/28
Net Weight/Gross Weight		Kg	32/38	32/38	42/48.5	42/48.5
Piping Connection	Liquid	inch	1/4	1/4	3/8	3/8
	Gas	inch	3/8	1/2	5/8	5/8
Loading Quantity	20'GP	sets	84	84	66	66
	40'HP/40'HQ	sets	168/196	168/196	138/161	138/161
Dimension(WxHxD)	Outline	inch	32-5/8x29-5/8x11-3/4	32-5/8x29-5/8x11-3/4	44-1/2x29-5/8x11-3/4	44-1/2x29-5/8x11-3/4
	Package	inch	35-3/8x31-3/4x14-1/8	35-3/8x31-3/4x14-1/8	47-1/2x32x14-1/8	47-1/2x32x14-1/8