





### **ULTRA HEAT MULTI ZONE DUCTLESS HEAT PUMP SYSTEM**

TM18H5O				
Performance				
Cooling Rated Capacity	Btu/h	18,000		
Cooling Cap. Range Min-Max	Btu/h	6,998~21,001		
SEER/EER		23.0/12.5		
Heating Rated Capacity	Btu/h	21,000		
Heating Cap. Range Min-Max	Btu/h	7,000~26,000		
HSPF/COP		10.5/3.6		
Electrical				
Voltage,Phase,Cycle	V-Ph-Hz	208/230-1-60		
Voltage Range	V	187~253		
MCA	Α	23		
MOP	Α	35		
Compressor RLA	Α	14.9		
Fan Motor FLA	Α	0.4		
Piping				
Total Pipe Length	ft	164		
Pipe Length to Any Indoor Unit Min-Max	ft	10~82		
Max Elevation between Indoor Units	ft	26		
Max Lift/Drop from ODU to IDU	ft	26		
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	-31~75		
System Data				
Compressor Type		DC Inverter Rotary		
Refrigerant Tpye		R410A		
Pre-Charge oz		77.6		
Pre-Charge Length	ft	66		
Additional Charge oz/ft		0.2		
Refrigerant Control	EXV			
ODU Sound Pressure		58/58		
(Cooling/Heating)	dB(A)	30/30		
Number of IDUs Min-Max		2-2		









Job Name:	[	Date:
Reference #:		
Signature:		

### **TOSOT NORTH AMERICA**

930 W 21ST STREET, CHICAGO IL 60608

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System Features		
Core Technology Three Cylinder Two Stage Compressor	G10	
Ultra Low Frequency Torque Control	Standard	
Power Factor Correction	Standard	
Compressor Type	Inverter Rotary	
Refrigerant Type	R410A	
Electric Expansion Valve (EEV)	2	
Basepan With Electric Heater	Standard	
Compressor Preheat	Standard	
Compressor With Electric Heater	Standard	
-40° F Wiring UL Approved	Standard	
Multi "Independent" Port Design	Standard	
Condenser Fan	Axial	
Condenser Motor Type	DC	
Condenser Coil	Aluminum Fin/ Copper Tube	
Condenser Motor Drive	Direct	
Outdoor Fin Coating ( Blue)	Acrylic Resin	
Intelligent Defrosting	Standard	
Low Voltage Startup	Standard	
Memory/Power Failure Recovery	Standard	
Self Diagnosis	Standard	
Ultra Heating (-31°F - 75°F)	Standard	
Ultra Cooling (0°F - 118°F)	Standard	
XK19 Wired Controller Interface	Standard	

### Remote Controller Functions

See Individual Indoor Unit Controllers Functions

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

XK19 Wired Controller Functions <sup>2</sup>			
On/Off	Standard		
Operating Mode	Standard		
Fan Speed	Standard		
Room Setpoint	Standard		
Model Numbers	Standard		
Timer Mode	Standard		
Sleep Mode	Standard		
Turbo Mode	Standard		
X-Fan Mode	Standard		
Privacy Lock	Standard		

<sup>&</sup>lt;sup>2</sup> Note:Some Indoor models may not support specific system features or functions.

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		COOLING F	PERFORMA	NCE*			
Outdoor		Indoor Entering Air Temperatures					
Outdoor	68°F	68°F DB		73°F DB		80°F DB	
Ambient DB	57°F	57°F WB		61°F WB		67°F WB	
υв	TC	SHC	TC	SHC	TC	SHC	
0°F	11,182	8,769	11,822	9,262	13,018	10,214	
5°F	11,573	9,076	12,235	9,586	13,473	10,571	
17°F	12,122	9,507	12,806	10,040	14,453	11,336	
23°F	13,281	10,418	14,206	11,143	16,277	12,766	
32°F	14,113	11,069	14,909	11,693	16,826	13,193	
41°F	14,620	11,467	15,440	12,109	17,644	13,835	
50°F	14,875	11,666	15,910	12,478	18,230	14,294	
57°F	16,106	12,631	17,227	13,510	18,867	14,793	
67°F	18,240	14,306	19,380	15,197	20,710	16,243	
75°F	18,025	14,139	19,171	15,037	20,520	16,096	
86°F	17,138	13,440	18,278	14,338	19,950	15,647	
95°F	16,220	12,721	17,353	13,607	19,000	14,902	
104°F	15,434	12,105	16,562	12,991	18,506	14,517	
113°F	15,035	11,791	16,169	12,676	18,113	14,203	
		HEATING P	ERFORMA	NCE*			

### **Indoor Entering Air Temperaturess** Outdoor 73°F DB 68°F DB 80°F DB **Ambient** 57°F WB 61°F WB 67°F WB DB Power Input (KW) Power Input (KW) Power Input (KW) TC COP TC COP TC COP -31°F 16,500 1.01 16,300 1.03 15,900 1.01 4.80 4.65 4.63 18,030 -22°F 18,902 4.89 18,401 4.94 1.09 4.95 1.07 1.13 20,160 5.01 1.18 19,762 5.02 1.15 -13°F 20,698 4.96 1.22 -5°F 22,479 3.28 2.01 21,906 3.32 1.93 21,482 3.43 1.84 21,130 21,565 3.38 1.87 3.49 1.78 0°F 22,148 3.34 2.05 22,251 3.17 21,672 1.98 21,245 3.31 2.06 3.21 1.88 5°F 22,498 3.20 2.06 21,913 3.24 1.98 21,475 3.34 1.88 10°F 17°F 22,072 3.18 2.03 21,492 3.22 1.96 21,053 3.32 1.86 21,778 2.97 2.15 21,478 3.01 2.09 21,036 3.10 1.99 20°F 3.08 2.01 20,856 1.96 20,478 3.21 1.87 24°F 21,108 3.11 20,566 2.95 2.05 20,339 2.98 2.00 20,008 3.07 1.91 32°F 2.30 21,165 2.76 2.25 20,848 2.84 41°F 21,375 2.73 2.15 3.02 21,750 2.16 2.96 2.22 43°F 21,960 2.13 21,440 2.82 23,340 2.20 3.23 3.10 22,846 2.27 2.94 47°F 24,000 2.18 53°F 24,240 3.59 23,573 2.00 3.45 23,079 2.07 3.27 1.98 2.00 3.27 21,695 2.02 3.14 21,236 2.09 2.98 59°F 22,316 22,160 22,788 1.83 3.64 1.85 3.50 21,695 1.91 3.32 64°F 23,220 1.86 3.66 22,579 1.88 3.51 22,100 1.94 70°F 3.33 75°F 23,544 1.70 4.06 22,896 1.72 3.90 22,417 1.78 3.70 78°F 23,760 1.72 4.06 23,105 1.74 3.90 22,619 1.79 3.70

Maximum System Capacity
TC - Total Capacity (BtuH)
COP - Coefficient of Performance

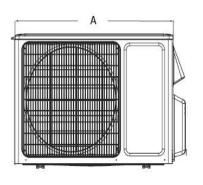


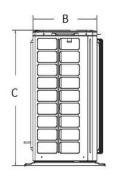




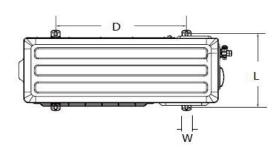
### **ULTRA HEAT MULTI ZONE DUCTLESS HEAT PUMP SYSTEM**

### **OUTLINE AND PHYSICAL DIMENSIONS**





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



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

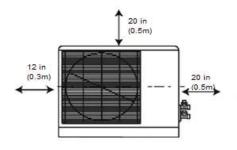
Weight (Net/Shipping)	172/183 lbs

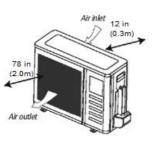
### **Suction/Gas Line Port Size**

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





Units: inch (m)

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### **ULTRA HEAT MULTI ZONE DUCTLESS HEAT PUMP SYSTEM**

### **OPERATIONAL PERFORMANCE SPECIFICATIONS**

### **COOLING CAPACITY (BTUH)**

Indoor Units Combinations	Rated System Capacity	Indoor Unit A	Indoor Unit B	Indoor Unit C	Indoor Unit D
	(BtuH)	(BtuH)	(BtuH)	(BtuH)	(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	Rated System Capacity	Indoor Unit A	Indoor Unit B	Indoor Unit C	Indoor Unit D
12K			NA	NA	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 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 W

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## **ULTRA HEAT MULTI ZONE DUCTLESS 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)
Oupdoity	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
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
Liquid		inch	1/4	1/4	1/4	1/4
Piping Connection G	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)
Capacity	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		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	36-1/4×14-7/8×11-1/8	36-1/4x14-7/8x11-1/8	41x15-1/8x12-5/8	45-1/4x16-1/4x13-3/4
Piping Connection Liquid Gas		inch	1/4	1/4	1/4	1/4
		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
Оараску	Heating	Btu/h	9500	13100	18700	27400
Power Supply		Ph/V/Hz	1Ph,208/230V,60Hz 1Ph,208/230V,60Hz 1I		1Ph,208/230V,60Hz	1Ph,208/230V,60Hz
Airflow Volume		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
Liquid		inch	1/4	1/4	1/4	3/8
Piping Connection	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









### **ULTRA HEAT MULTI ZONE DUCTLESS HEAT PUMP SYSTEM**

### **NON-DUCTED INDOOR UNIT**

### 4-WAY CASSETTE INDOOR UNIT

Model			TM12HKDI	TM18HKDI	TM24HKDI
Capacity	Cooling	Btu/h	12000	14400	22800
Capacity	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	Outline	inch	23-1/2x23-1/2x9-1/2	23-1/2x23-1/2x9-1/2	33-1/8x33-1/8x9-1/2
Dimension(WxHxD)	Package	inch	30-5/8x29x11-3/4	30-5/8x29x11-3/4	37-7/8x37-7/8x12-3/4
Panel	Outline	inch	26-3/8x2x26-3/8	26-3/8x2x26-3/8	37-3/8x2-3/8x37-3/8
Dimension(WxHxD)	Package	inch	30x4-1/8x30	30x4-1/8x30	40-5/8x5-1/4x40-7/8
Dining Constant	Liquid	inch	1/4	1/4	3/8
Piping Connection	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) K		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
Cupacity	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
Dining Commenting	Liquid	inch	1/4	1/4	1/4
Piping Connection	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

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