

# Ultra Heat Multi Zone Heat Pump

# TOSOT

# MODEL: TM36H50

Project Name:

Location:

Engineer Name:

Purshaser:

Unit Designation:

Schedule No.

SubmittedTo:

Date:



## General Features

- High And Low Pressure Protection Features
- Over Load Protection Features
- 100% Heating Capacity at -4F
- 80% Heating Capacity at -22F
- Stable Operation at -31F!
- Drain Pan Heater Included

- Over-Current Protection
- Anti Freeze Protection
- Optional BMS Integration

## Unit Performance:

Cooling:	-	-
Capacity (Min Rated Max, Btu/h)	8,871-36,000-42,650	
SEER		23
EER (Btu/h)/w		9
Heating:	-	-
Capacity (Min Rated Max, Btu/h)	8,871-36,000-42,514	
HSPF		10
COP (W/W)		3.21

## Unit Specification

Refrigerant Type	R410A
Refrigerant Control	EEV
Sound Pressure (dB(A))	62
Net Weight (lbs)	280
Min. Number IDU	2
Max. Number IDU	4
Dehumidification (Pint/h)	N/A
Heat Exchanger Coating	GoldFin™

## Piping

Refrigerant Charge (lbs)	10
Liquid Line (in)	1/4
Gas Line (in)	3/8
Max Total Piping (ft)	246
Max ODU to IDU Piping (per zone, ft)	82
Total Piping Length (with factory charge, ft)	131.2
Max Elevation between ODU and IDU (ft)	49.2
Max Elevation between IDU and IDU (ft)	49.2

## Electrical Specification

Power Supply	208-230V / 60Hz
Communications Wire Size	AWG 14/4
MOP (A)	60
MCA (A)	36
Cooling Rated Amps (A)	17.48
Heating Rated Amps (A)	14.35
Compressor RLA (A)	27
Fan Motor RLA (A)	1
Nominal Cooling Power Input (kW)	2.72
Nominal Heating Power Input (kW)	3.37

## Operating Range:

Cooling (°F)	0~115
Heating (°F)	-31~75

## Compressor:

Quantity	1
Type	Inverter Rotary
Oil/Type	RB68EP

## Fan

Type	Axial-flow
Quantity	1
Motor/Drive	DC motor/Direct drive
Max Air Flow Rate (CFM)	3060

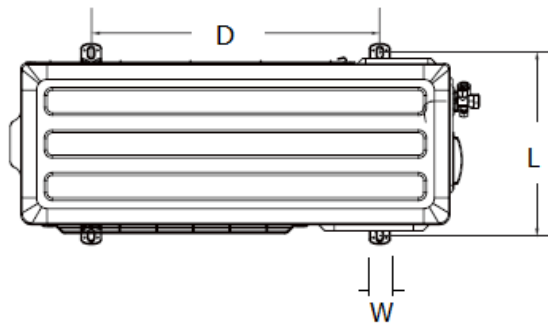
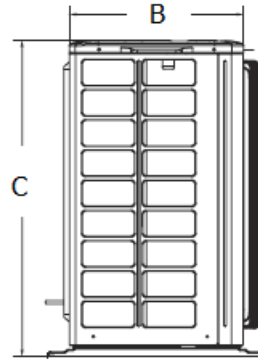
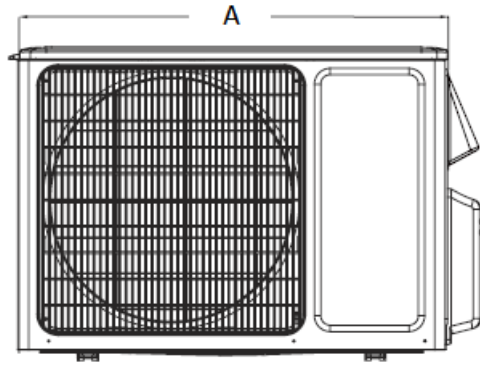


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Pump**

**TOSOT**

**MODEL: TM36H5O**

**Outline Dimension Diagram**



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

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

**GLOSSARY**

SEER - Seasonal Energy Efficiency Ratio

EER - Energy Efficiency Ratio

HSPF - Heating Seasonal Performance Factor

MOP - Maximum Overcurrent Protection

MCA - Minimum Circuit Ampacity

**System Performance**

COOLING PERFORMANCE (BtuH)*													
Outdoor Ambient Temperature (DB) °F	Indoor Entering Air Temperatures												
	68F DB			73°F DB				80°F DB					
	57F WB			61°F WB				67°F WB					
	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			

HEATING PERFORMANCE (BtuH)*									
Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F WB			61°F WB			67°F WB		
	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

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