


TOSOT

Multi **ULTRA** Ductless heat-pump systems 18,000 BTU

Submittal Data: TM18H50		Inverter Heat Pump System	
Job Name		Location	
Purchaser		Date	
Submitted To		Engineer	
Unit Designation		For <input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction	
Schedule No.			
GENERAL FEATURES -Dual Indoor Units (2-Port) -G10 DC Inverter Technology - 2 Stage / 3 Cylinder -Automatic Defrosting -Compressor/Chassis Heaters -Copper Tubing w/ Acrylic-Resin Coated Aluminum Fins -Intelligent Defrost -Auto Restart on Power Outages -Mult-point Diagnostics -Limited 5 yr Parts & Compressor Warranty-Residential Only		 TosotComfort.com	
System Ratings		Outdoor Unit Data	
Rated Cooling Capacity	18,000 BTUH	Compressor Type	DC Inverter Driven Rotary
Cooling Capacity (min-max)	6,998-21,001 BTUH	RLA	14.9 A
Rated Heating Capacity	21,000 BTUH	Starting Current	5.0 A
Heating Capacity (min-max)	7,000-26,000 BTUH	Fan Motor Output Power	90 W
SEER/EER	23.0 / 12.5	FLA	0.4 A
HSPF/COP	10.5 / 3.6	Air Flow (Max)	2531 CFM
Operating Range		Sound Pressure Level	
Cooling - Low/High Ambient	(min-max) 0 ~ 118°F -18 ~ 48°C	Cooling	58 dB(A)
Heating - Low Ambient (ULTRA)	(min-max) -31 ~ 75°F -35 ~ 24°C	Heating	58 dB(A)
Power Supply		Dimensions & Weights	
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Unit Dimensions Overall (WxDxH)*	39.5 x 16.8 x 31.1-in
Voltage Range	187 - 253 V	* including Valve Covers and Grilles	
Main Power Wire Size	10-2 AWG	Weight (Net/Shipping)	172/183 lbs
Interconnecting Cable Wire Size	14-4 AWG	Refrigerant Piping Data	
MCA	23.0 A	Refrigerant Type	R410A
MOCP/Breaker Size	35 A	Refrigerant Charge	77.6 oz
		Additional Charge Per Line Length	0.2-oz/ft
		Connection Method-Flared	1/4x3/8-in
		Factory Charge for Total Line Length	66-ft
		Total Refrigerant Pipe Length	164-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	26-ft
		Max Lift from Outdoor to Indoor Unit	26-ft
		Max Drop from Outdoor to Indoor Unit	26-ft



SYSTEM FEATURES	
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)	2
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 (-31°F - 75°F)	YES
Ultra Cooling (0°F - 118°F)	YES
XK19 Wired Controller Interface	YES

REMOTE CONTROLLER FUNCTIONS ¹	See individual Indoor Unit Controllers Functions
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¹ Not all Remote Controller functions are supported.

XK19 WIRED CONTROLLER FUNCTIONS ²	
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

² Note: Some indoor models may not support specific system features or functions.

DIMENSIONAL SPECIFICATIONS

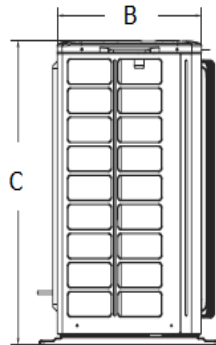
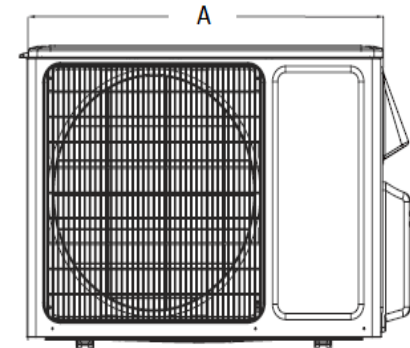
TM18H50

18,000 BTUH MODEL

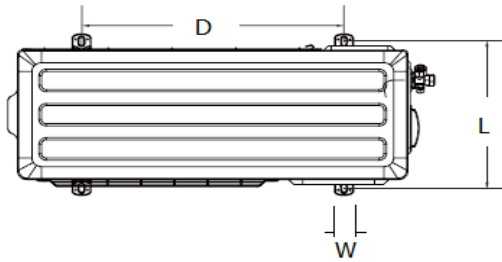
Model # TM18H50 18,000 BTUH 230V

Units: inch

Units: inch



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
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Suction/Gas Line Port Size

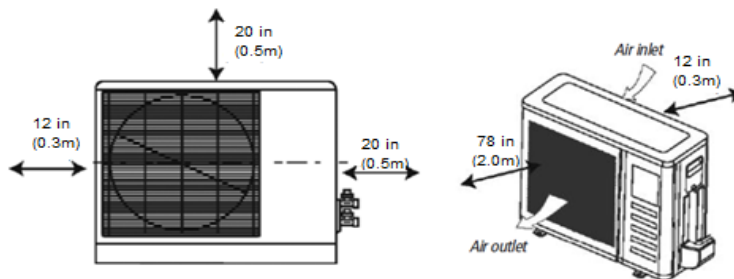
Port #1	3/8-in OD Flared
Port #2	3/8-in OD Flared

Liquid Line Port Size

Port #1	1/4-in OD Flared
Port #2	1/4-in OD Flared

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.

Specifications are subject to change without notice. Manufacturer reserves the right to discontinue or modify specifications or designs without notice or without incurring obligations. All rights reserved.

EXTENDED RATINGS

TM18H50

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	11182	8769	11822	9262	13018	10214
5°F	11573	9076	12235	9586	13473	10571
14°F	12122	9507	12806	10040	14453	11336
23°F	13281	10418	14206	11143	16277	12766
32°F	14113	11069	14909	11693	16826	13193
41°F	14620	11467	15440	12109	17644	13835
50°F	14875	11666	15910	12478	18230	14294
59°F	16106	12631	17227	13510	18867	14793
68°F	18240	14306	19380	15197	20710	16243
77°F	18025	14139	19171	15037	20520	16096
86°F	17138	13440	18278	14338	19950	15647
95°F	16220	12721	17353	13607	19000	14902
104°F	15434	12105	16562	12991	18506	14517
113°F	15035	11791	16169	12676	18113	14203

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	16500	4.80	1.01	16300	4.65	1.03	15900	4.63	1.01
-22°F	18902	4.89	1.13	18401	4.94	1.09	18030	4.95	1.07
-13°F	20698	4.96	1.22	20160	5.01	1.18	19762	5.02	1.15
-5°F	22479	3.28	2.01	21906	3.32	1.93	21482	3.43	1.84
0°F	22148	3.34	1.94	21565	3.38	1.87	21130	3.49	1.78
5°F	22251	3.17	2.06	21672	3.21	1.98	21245	3.31	1.88
10°F	22498	3.20	2.06	21913	3.24	1.98	21475	3.34	1.88
17°F	22072	3.18	2.03	21492	3.22	1.96	21053	3.32	1.86
19°F	21778	2.97	2.15	21478	3.01	2.09	21036	3.10	1.99
24°F	21108	3.08	2.01	20856	3.11	1.96	20478	3.21	1.87
32°F	20566	2.95	2.05	20339	2.98	2.00	20008	3.07	1.91
41°F	21375	2.73	2.30	21165	2.76	2.25	20848	2.84	2.15
43°F	21960	2.13	3.02	21750	2.16	2.96	21440	2.22	2.82
47°F	24000	2.18	3.23	23340	2.20	3.10	22846	2.27	2.94
53°F	24240	1.98	3.59	23573	2.00	3.45	23079	2.07	3.27
59°F	22316	2.00	3.27	21695	2.02	3.14	21236	2.09	2.98
64°F	22788	1.83	3.64	22160	1.85	3.50	21695	1.91	3.32
70°F	23220	1.86	3.66	22579	1.88	3.51	22100	1.94	3.33
75°F	23544	1.70	4.06	22896	1.72	3.90	22417	1.78	3.70
78°F	23760	1.72	4.06	23105	1.74	3.90	22619	1.79	3.70

* Maximum system capacity

TC- Total Capacity (BtuH)

COP- Coefficient of Performance

ULTRA HEAT

ULTRA COOL

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	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

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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TOSOT

MULTI **ULTRA** Ductless heat-pump systems 24,000 BTU

Submittal Data: TM24H50		Heat Pump System	
Job Name		Location	
Purchaser		Date	
Submitted To		Engineer	
Unit Designation		For <input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction	
Schedule No.			
GENERAL FEATURES -Up to 3 Indoor Units (3-Port) -G10 DC Inverter Technology R410A -Automatic Defrosting -Compressor/Chassis Heaters -Copper Tubing w/ Acrylic-Resin Coated Aluminum Fins -Intelligent Defrost -Auto Restart on Power Outages -Mult-point Diagnostics -Limited 5 yr Parts & Compressor Warranty-Residential Only		 <p>TosotComfort.com</p>	
System Ratings		Outdoor Unit Data	
Rated Cooling Capacity	22,000 BTUH	Compressor Type	DC Inverter Driven Rotary
Cooling Capacity (min-max)	7,500-33,000 BTUH	RLA	17.0 A
Rated Heating Capacity	26,000 BTUH	Starting Current	5.0 A
Heating Capacity (min-max)	7,500-31,000 BTUH	Fan Motor Output Power	90 W
SEER/EER	23.0 / 12.5	FLA	0.4 A
HSPF/COP	10.5 / 3.7	Air Flow (Max)	2531 CFM
Operating Range		Sound Pressure Level	
Cooling - Low/High Ambient	(min-max) 0 - 118°F -18 - 48°C	Cooling	60 dB(A)
Heating - Low Ambient (ULTRA)	(min-max) -31 - 75°F -35 - 24°C	Heating	60 dB(A)
Power Supply		Dimensions & Weights	
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz	Unit Dimensions Overall (WxDxH)*	39.5 x 16.8 x 31.1-in
Voltage Range	187 - 253 V	* including Valve Covers and Grilles	
Main Power Wire Size	10-2 AWG	Weight (Net/Shipping)	174/185-lbs
Interconnecting Cable Wire Size	14-4 AWG	Min. Number of Indoor Units	2
MCA	23.0 A	Max. Number of Indoor Units	3
MOCP/Breaker Size	40 A	Refrigerant Piping Data	
		Refrigerant Type	R410A
		Refrigerant Charge	95.2 oz
		Additional Charge Per Line Length	0.2-oz/ft
		Connection Method-Flared	1/4x3/8-in
		Factory Charge for Total Line Length	98-ft
		Total Refrigerant Pipe Length	230-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	26-ft
		Max Lift from Outdoor to Indoor Unit	26-ft
		Max Drop from Outdoor to Indoor Unit	26-ft



SYSTEM FEATURES	
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)	3
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 (-31°F - 75°F)	YES
Ultra Cooling (0°F - 118°F)	YES
XK19 Wired Controller Interface	YES

REMOTE CONTROLLER FUNCTIONS¹	See individual Indoor Unit Controllers Functions
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¹ Not all Remote Controller functions are supported.

XK19 WIRED CONTROLLER FUNCTIONS ²	
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

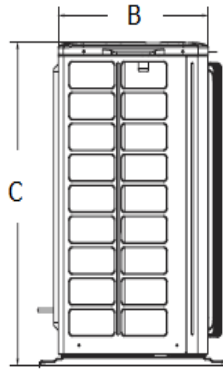
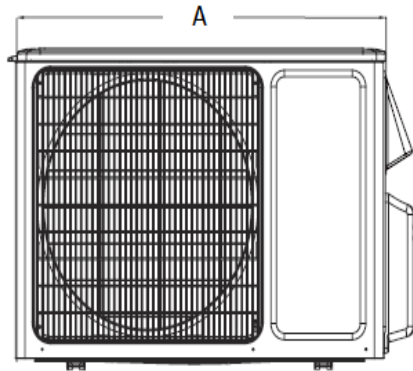
² Note: Some indoor models may not support specific system features or functions.

24,000 BTUH MODEL

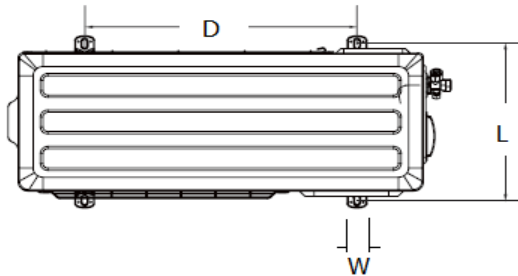
Model # TM24H50

24,000 BTUH 230V

Units: inch



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)	174/185 lbs
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Suction/Gas Line Port Size

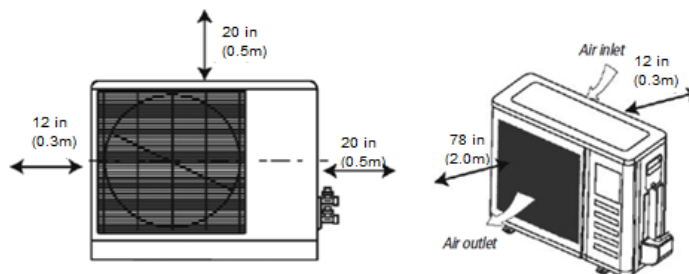
Port #1	3/8-in OD Flared
Port #2	3/8-in OD Flared
Port #3	3/8-in OD Flared

Liquid Line Port Size

Port #1	1/4-in OD Flared
Port #2	1/4-in OD Flared
Port #3	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

TM24H50

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	17067	13385	18044	14137	19870	15590
5°F	17664	13852	18674	14631	20564	16135
14°F	18502	14511	19546	15324	22059	17302
23°F	20271	15901	21682	17008	24843	19485
32°F	21541	16894	22756	17847	25682	20137
41°F	22315	17502	23566	18482	26931	21116
50°F	22704	17806	24284	19045	27825	21817
59°F	24582	19279	26293	20621	28797	22579
68°F	27840	21835	29580	23196	31610	24792
77°F	27511	21580	29261	22951	31320	24567
86°F	26158	20513	27898	21884	30450	23882
95°F	24756	19417	26487	20768	29000	22746
104°F	23558	18477	25278	19828	28246	22158
113°F	22949	17997	24679	19348	27647	21678
122°F	22349	17527	24070	18878	27047	21208
129°F	21750	17057	23200	18193	26100	20474

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	21500	5.45	1.16	21000	5.50	1.12	20500	5.70	1.05
-22°F	24954	5.50	1.33	24292	5.57	1.28	23801	5.74	1.21
-13°F	27324	5.58	1.44	26614	5.64	1.38	26089	5.82	1.31
-5°F	31846	5.42	1.72	31034	5.48	1.66	30433	5.66	1.58
0°F	31376	5.51	1.67	30550	5.58	1.61	29933	5.75	1.52
5°F	31523	5.24	1.76	30703	5.30	1.70	30097	5.46	1.61
10°F	31872	5.29	1.77	31044	5.35	1.70	30423	5.52	1.62
17°F	31268	5.25	1.75	30448	5.31	1.68	29825	5.48	1.60
19°F	30852	4.91	1.84	30427	4.96	1.80	29802	5.12	1.71
24°F	29903	5.08	1.72	29546	5.14	1.68	29011	5.30	1.60
32°F	29135	4.86	1.76	28814	4.92	1.72	28344	5.07	1.64
41°F	30281	4.50	1.97	29984	4.55	1.93	29535	4.69	1.84
43°F	31110	3.52	2.59	30813	3.56	2.54	30373	3.67	2.42
47°F	34000	3.60	2.77	33065	3.64	2.66	32366	3.76	2.52
53°F	34340	3.27	3.08	33394	3.31	2.96	32695	3.41	2.81
59°F	31614	3.30	2.81	30734	3.34	2.70	30085	3.45	2.56
64°F	32283	3.03	3.12	31394	3.06	3.00	30734	3.16	2.85
70°F	32895	3.08	3.13	31987	3.11	3.01	31308	3.21	2.86
75°F	33354	2.81	3.48	32436	2.84	3.34	31757	2.93	3.17
78°F	33660	2.84	3.48	32732	2.87	3.34	32044	2.96	3.17

* Maximum system capacity

TC- Total Capacity (BtuH)

COP- Coefficient of Performance

ULTRA HEAT

ULTRA COOL

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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TOSOT

MULTI **ULTRA** Ductless heat-pump systems 36,000 BTU

Submittal Data: TM36H50		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.	
GENERAL FEATURES -Up to Four Indoor Units (4-Port) -G10 DC Inverter Technology -Quiet Operation - Both Indoor & Outdoor -Blue Fin Coil Coating -Intelligent Defrost -Auto Restart on Power Outages -Mult-point Diagnostics -Limited 5 yr Parts & Compressor Warranty-Residential Only		 TosotComfort.Com	
System Ratings		Outdoor Unit Data	
Rated Cooling Capacity	36,000 BTUH	Compressor Type	DC Inverter Driven Rotary
Cooling Capacity (min-max)	8,871-42,650 BTUH	RLA	27.0 A
Rated Heating Capacity	36,000 BTUH	Starting Current	5.0 A
Heating Capacity (min-max)	8,871-42,514 BTUH	Fan Motor Output Power	90 W
SEER/EER	23.0 / 9.0	FLA	1.0 A
HSPF/COP	10.0 / 3.21	Air Flow (Max)	3,060 CFM
Operating Range		Sound Pressure Level	
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)
Power Supply		Dimensions & Weights	
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)	280/298 lbs
Interconnecting Cable Wire Size	14-4 AWG	Min. Number of Indoor Units	2
MCA	36.0 A	Max. Number of Indoor Units	4
MOCP/Breaker Size	60 A	Refrigerant Piping Data	
		Refrigerant Type	R410A
		Refrigerant Charge	158.8-oz
		Additional Charge Per Line Length	0.2-oz/ft
		Refrigerant Tubing Size (Flared) - 4 Ports	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

SYSTEM FEATURES

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 (-31°F - 75°F)	YES
Ultra Cooling (0°F - 118°F)	YES
XK19 Wired Controller Interface	YES

REMOTE CONTROLLER FUNCTIONS¹

See individual Indoor Unit
Controllers Functions

¹ Not all Remote Controller functions are supported.

XK19 WIRED CONTROLLER FUNCTIONS²

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

² Note: Some indoor models may not support specific system features or functions.

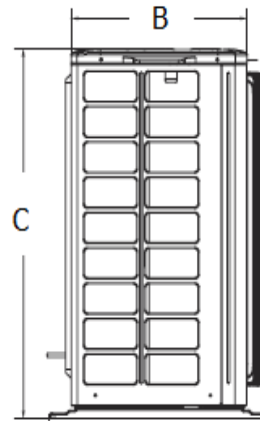
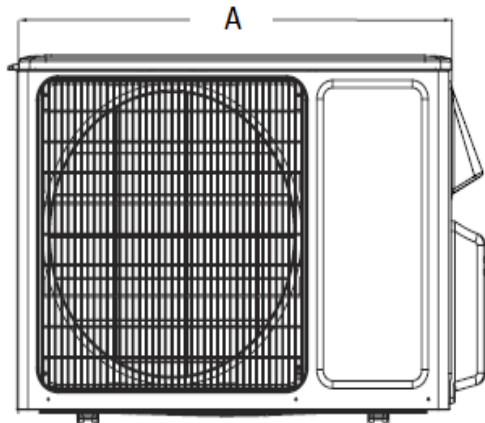
OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS

TM36H50

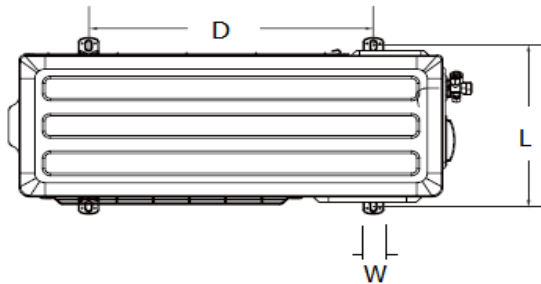
Units: inch

36,000 BTUH MODEL

Model #TM36H50 36,000 BTUH 230V



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) 280/298 lbs

Factory Supplied Piping Adapters

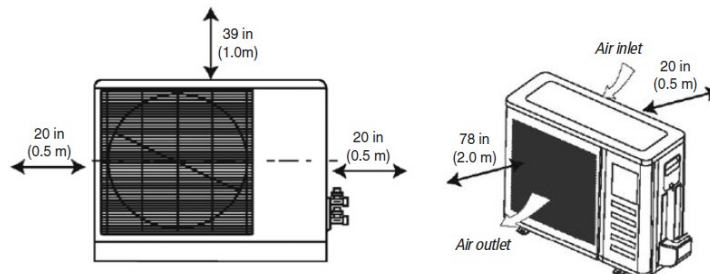
Adapter	P/N	Qty
3/8 (F) to 5/8 (M)	6654100009	3
3/8 (F) to 1/2 (M)	6654100013	4
1/4 (F) to 3/8 (M)	6654104	2

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

TM36H50

ULTRA COOL

COOLING PERFORMANCE (BtuH)*

Outdoor Ambient Temperature (DB) °F	Indoor Entering Air Temperatures											
	68F DB		73°F DB				80°F DB					
	57F WB		61°FWB				67°FWB					
	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						

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	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

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

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

COOLING CAPACITY (BTUH)

Indoor Units Combinations	Rated System (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)
9+9	19,500	9,250	9,250	NA	NA
9+12	21,000	9,000	12,000	NA	NA
9+18	25,500	8,000	17,500	NA	NA
9+24	26,300	7,000	19,300	NA	NA
12+12	24,000	12,000	12,000	NA	NA
12+18	28,400	11,400	17,000	NA	NA
12+24	32,700	10,000	22,700	NA	NA
18+18	31,680	15,840	15,840	NA	NA
18+24	33,190	14,240	18,950	NA	NA
24+24	35,120	17,560	17,560	NA	NA
9+9+9	24,600	8,200	8,200	8,200	NA
9+9+12	24,900	7,500	7,500	9,900	NA
9+9+18	30,200	7,200	7,200	15,800	NA
9+9+24	34,900	6,600	6,600	21,700	NA
9+12+12	29,600	8,000	10,800	10,800	NA
9+12+18	32,900	7,400	9,800	15,700	NA
9+12+24	36,100	6,800	9,100	20,200	NA
9+18+18	36,100	6,500	14,800	14,800	NA
12+12+12	31,200	10,400	10,400	10,400	NA
12+12+18	35,100	9,960	9,960	15,180	NA
12+12+24	37,500	9,300	9,300	18,900	NA
12+18+18	37,500	8,900	14,300	14,300	NA
9+9+9+9	35,480	8,870	8,870	8,870	8,870
9+9+9+12	36,490	8,460	8,460	8,460	11,110
9+9+9+18	38,350	7,650	7,650	7,650	15,400
9+9+12+12	39,000	8,300	8,300	11,200	11,200
9+9+12+18	39,840	7,470	7,470	9,960	14,940
9+12+12+12	39,280	7,000	10,760	10,760	10,760
9+12+12+18	40,010	6,760	9,600	9,600	14,050
12+12+12+12	39,800	9,950	9,950	9,950	9,950

Note:

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

TM36H50

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

Note:


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

Cooling Nominal Test Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB

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TOSOT

MULTI **ULTRA** Ductless heat-pump systems 42,000 BTU

Submittal Data: TM42H50		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.	
GENERAL FEATURES -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			
System Ratings		Outdoor Unit Data	
Rated Cooling Capacity	42,000 BTUH	Compressor 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	Fan Motor 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
Operating Range		Sound Pressure Level	
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)
Power Supply		Dimensions & Weights	
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	Refrigerant Piping Data	
		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

SYSTEM FEATURES	
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 FUNCTIONS¹

See individual Indoor Unit
Controllers Functions

¹ Not all Remote Controller functions are supported.

XK19 WIRED CONTROLLER FUNCTIONS²

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

² Note: Some indoor models may not support specific system features or functions.

OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS

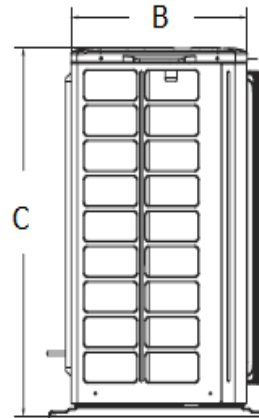
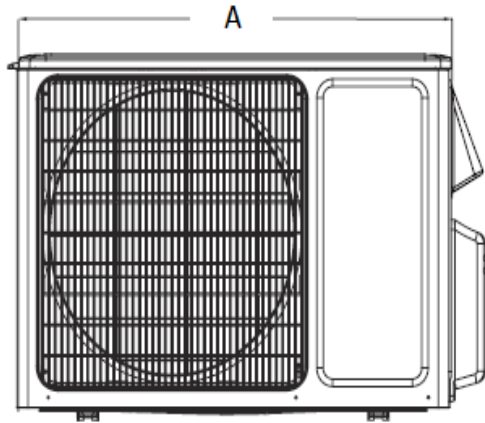
TM42H50

ULTRA HEAT **ULTRA COOL**

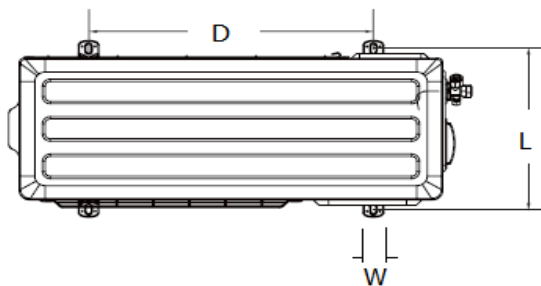
42,000 BTUH MODEL

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

Factory Supplied Piping Adapters

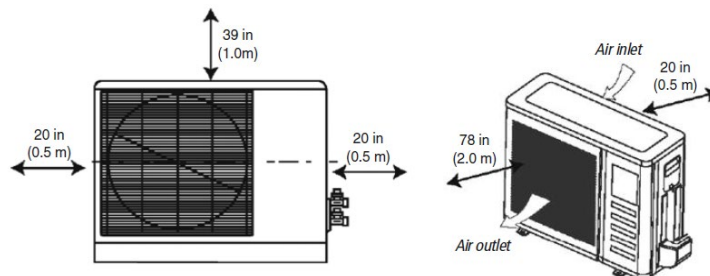
Adapter	P/N	Qty
3/8 (F) to 5/8 (M)	6654100009	3
3/8 (F) to 1/2 (M)	6654100013	4
1/4 (F) to 3/8 (M)	6654104	2

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					
	68F DB		73°F DB		80°F DB	
	57F 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)

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	19,500	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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TOSOT

MULTI **ULTRA** Ductless heat-pump systems 48,000 BTU

Submittal Data: TM48H50 48,000 BTUH Super +Multi-port Heat Pump System

Job Name _____ Location _____ Date _____

Purchaser _____ Engineer _____

Submitted To _____ For Reference Approval Construction

Unit Designation _____ Schedule No. _____

- GENERAL FEATURES**
- Up to Seven Indoor Units (7Port)
 - G10 DC Inverter Technology - 2 Stage / 3 Cylinder
 - 2-Way & 3-Way Branch Units (Sold Sepatately)
 - Acrylic Resin / Anti-Corrosion Coil Protection
 - Intelligent Defrost
 - Auto Restart on Power Outages
 - 5 yr. Limited Parts & Compressor Warranty



System Ratings

Cooling	
Rated Capacity	48,000 BTU/H
Capacity Range	3,412-54,592 BTU/H
Power Input (Max)	5,430 W
SEER	18.0
EER	8.8

Heating at 47° F	
Rated Capacity	54,000 BTU/H
Capacity Range	4,094-59,369 BTU/H
Input Power (Max)	4,950 W
HSPF	10.0
COP	3.2

Heating at 17° F	
Rated Capacity	36,400 BTU/H
Capacity (Max)	53,418 BTU/H

Operating Range			
Cooling	(Max)	129°F (54°C)	
	(Min)	50°F (10°C)	
Heating	(Max)	81°F (27°C)	
	(Min)	-31°F (-35°C)	

Power Supply	
Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz
Voltage Range	187 - 253 V
Main Power Wire Size	6 AWG
Interconnecting Wire Size (Min.)	18 AWG
MCA	39 A
MOCP/Breaker Size	60 A

Outdoor Unit Data

Compressor	Type	DC Inverter Driven Rotary
	RLA	29.0 A
Fan Motor	Output Power	2 x 1/6HP
	FLA	2 x 1.0 A
	Air Flow Ea.(Max)	3,531 CFM
Sound Pressure Level		
	Cooling	56 dB(A)
	Heating	56 dB(A)

Refrigerant Piping Data

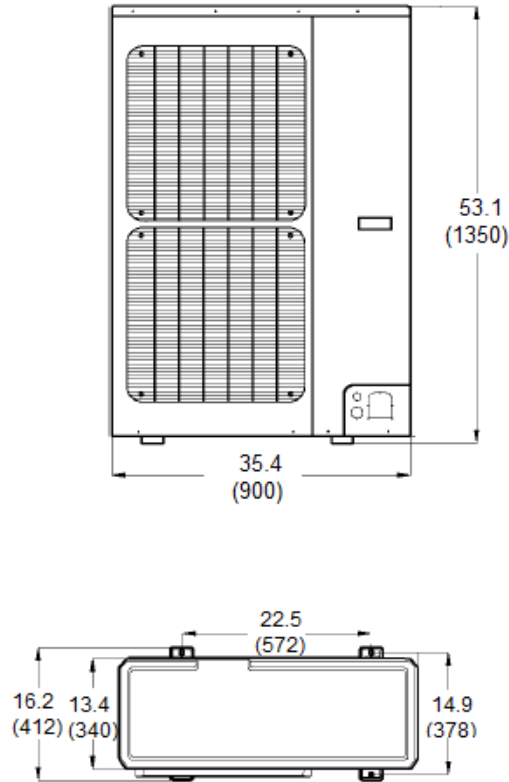
Max. Number of Indoor Units	7
Connection Method OD Unit (Flared)	3/8 x 5/8
Refrigerant Type	R410A
Refrigerant Charge	229.3 oz
Additional Charge Per Line Length	0.5-oz/ft
Factory Charge for Total Line Length	98-ft
Max. Number of BU Boxes	3
Total Refrigerant Pipe Length	443-ft
Max Refrigerant Piping Length to any Indoor Unit	230-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	98-ft
Max Drop from Outdoor to Indoor Unit	98-ft



Units: inch (mm)

48,000 BTUH MODEL

Model #TM48H50 48,000 BTUH 230V

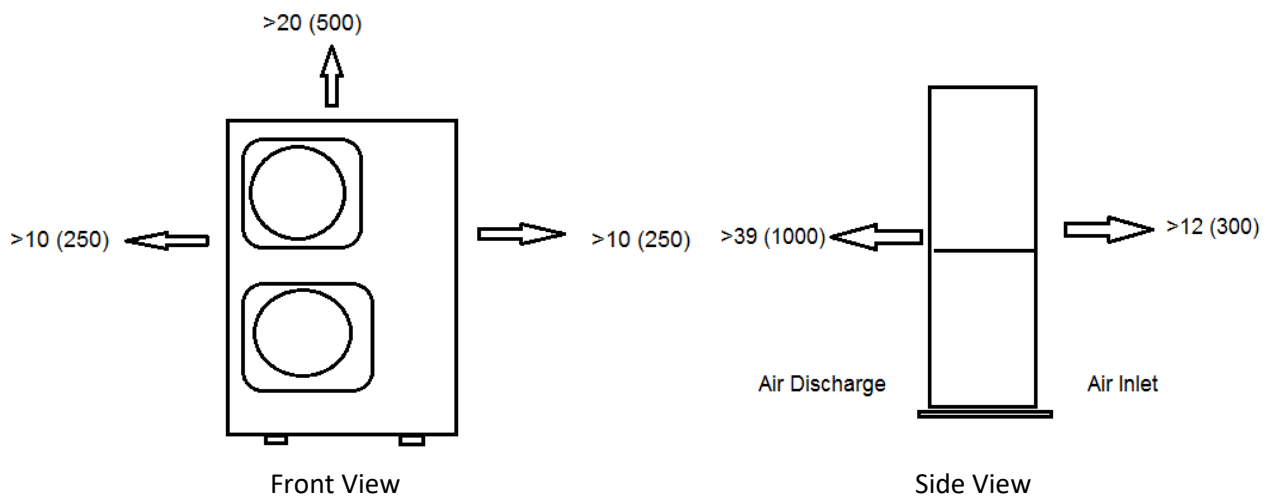


Net Weight	307 lbs
Shipping Weight	331 lbs

Liquid Line Port Size	3/8-in OD Flared
Suction/Gas Line Port Size	5/8-in OD Flared

MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



Notes:

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 300V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.

EXTENDED RATINGS

TM48H50

COOLING PERFORMANCE (BtuH)*

ULTRA COOL

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	SHC	TC	SHC	TC	SHC
50°F	56,201	47,771	60,482	48,386	62,130	49,704
59°F	55,105	46,839	58,303	46,642	59,516	47,613
68°F	55,420	47,107	56,742	45,394	57,952	46,362
77°F	53,521	45,493	54,783	43,826	56,180	44,944
86°F	51,145	43,473	52,541	42,033	53,791	43,033
95°F	49,548	42,116	50,726	40,581	52,183	41,746
104°F	48,030	40,826	48,203	38,562	49,782	39,826
113°F	45,208	38,427	46,503	37,202	47,982	38,386
122°F	38,901	33,066	40,112	32,090	41,650	33,320
129°F	29,651	25,203	31,583	25,266	33,742	26,994

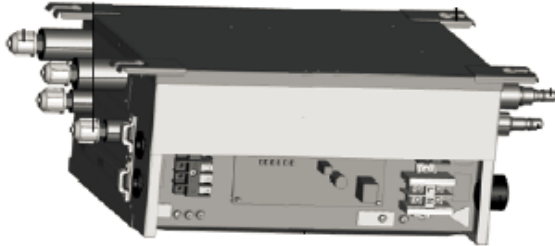
HEATING PERFORMANCE (BtuH)*

ULTRA HEAT

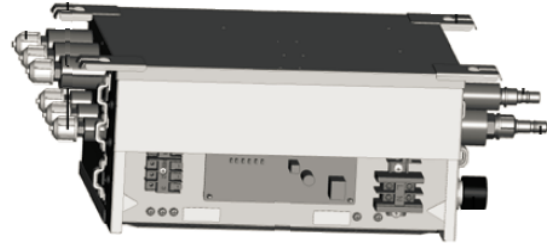
Outdoor Ambient Temperature (DB)	Indoor Entering Air Temperatures								
	68°F DB			73°F DB			80°F DB		
	57°F WB			61°F WB			67°F WB		
	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP	TC	Power Input (KW)	COP
-31°F	29,651	6.30	1.38	31,802	6.12	1.52	31,802	6.01	1.55
-22°F	36,502	6.36	1.68	36,351	6.18	1.72	36,351	6.08	1.75
-13°F	42,102	6.53	1.89	41,725	6.35	1.93	41,725	6.24	1.96
-5°F	48,000	6.70	2.10	47,600	6.52	2.14	47,600	6.41	2.18
0°F	49,012	6.72	2.14	48,914	6.53	2.20	48,914	6.42	2.23
5°F	50,815	6.75	2.21	50,628	6.57	2.26	50,628	6.46	2.30
10°F	51,568	6.70	2.26	51,357	6.52	2.31	51,357	6.41	2.35
17°F	53,541	6.60	2.38	53,418	6.42	2.44	53,418	6.31	2.48
19°F	55,000	6.50	2.48	54,482	6.31	2.53	54,482	6.21	2.57
24°F	56,300	6.43	2.57	56,100	6.25	2.63	56,100	6.13	2.68
32°F	59,000	6.40	2.70	58,800	6.20	2.78	58,800	6.10	2.83
41°F	61,000	6.23	2.87	60,200	6.05	2.92	60,000	5.94	2.96
43°F	61,520	6.10	2.96	60,520	5.90	3.01	60,850	5.80	3.07
47°F	63,120	6.20	2.98	58,120	5.53	3.08	56,450	5.27	3.14
53°F	63,120	6.00	3.08	58,120	5.40	3.15	56,450	5.14	3.22
59°F	63,120	5.60	3.30	58,120	5.10	3.34	56,450	4.94	3.35
64°F	63,120	4.86	3.81	58,120	4.39	3.88	56,450	4.24	3.90
70°F	63,120	4.45	4.16	58,120	4.00	4.26	56,450	3.82	4.33
75°F	63,120	4.23	4.37	58,120	3.76	4.53	56,450	3.61	4.58
78°F	63,120	4.09	4.52	58,120	3.52	4.84	56,450	3.40	4.87

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

BRANCH (BU) SPECIFICATIONS



1-Port In/2-Ports Out
Model no: FXA2A-D (RFX12A)



1-Port In/3-Ports Out
Model no: FXA3A-D (RFX13A)

Electrical

		FXA2A-D	FXA3A-D
		RFX12A	RFX13A
No. of Indoor Units		2	3
Power Supply	volts	208/230v	208/230v
Rated Current	amps	3.15	3.15
MOCP	amps	15	15

Piping

		FXA2A-D	FXA3A-D
		RFX12A	RFX13A
Max Equivalent Length (BU to last Indoor Unit)	ft	60	60

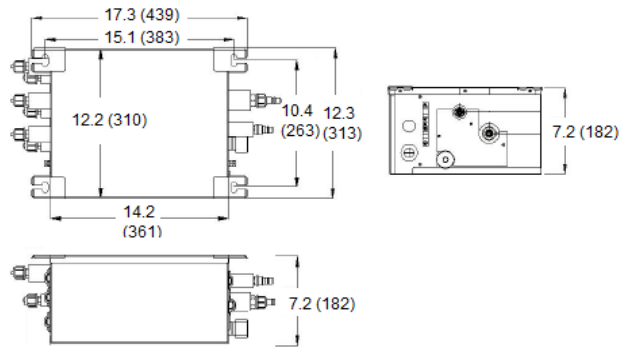
Notes:

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 300V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.

BRANCH (BU) BOX DIMENSIONAL SPECIFICATIONS

Units: inch (mm)

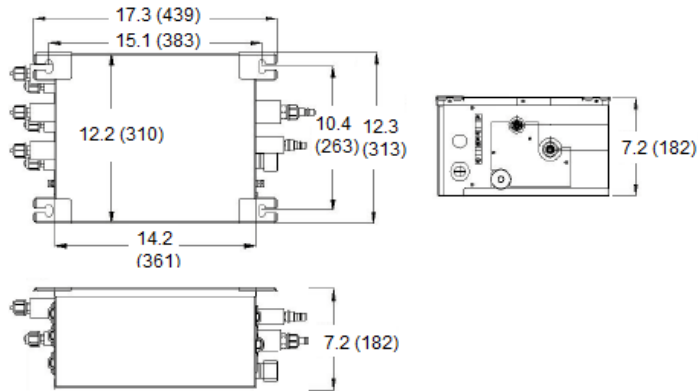
1-Port In/2-Ports Out
Model no: FXA3A-D (RFX12A)



	Indoor Unit Side		Outdoor Unit Side
	Port A ¹	Port B ¹	
Liquid Pipe (Flare)	1/4	1/4	3/8
Gas Pipe (Flare)	3/8	3/8	5/8

Weight	
Net	Gross
12 lbs	16 lbs

1-Port In/3-Ports Out
Model no: FXA3A-D (RFX13A)

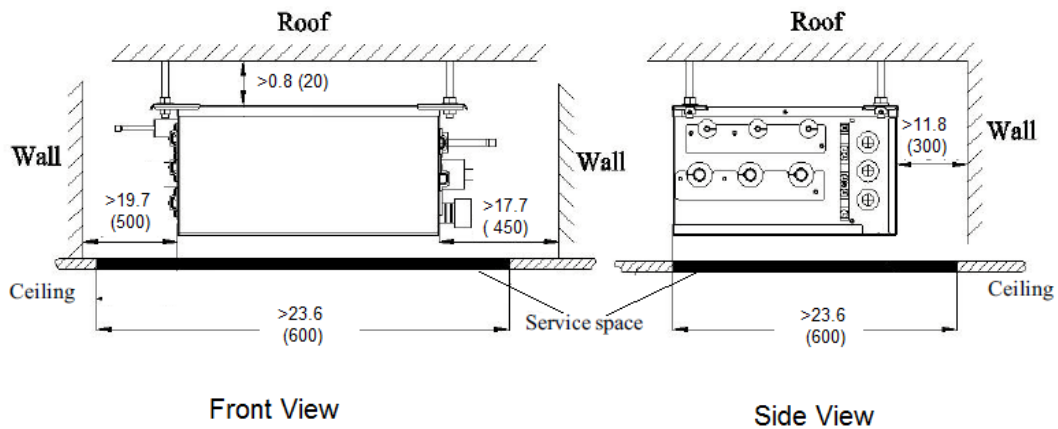


	Indoor Unit Side			Outdoor Unit Side
	Port A ¹	Port B ¹	Port C ¹	
Liquid Pipe (Flare)	1/4	1/4	1/4	3/8
Gas Pipe (Flare)	3/8	3/8	3/8	5/8

Weight	
Net	Gross
13 lbs	17 lbs

MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



Notes:

1. Communication Cable minimum 18 AWG Type Stranded Copper Conductors THHN 300V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.



Types of Indoor Units and Capacity

Ceiling Cassette	12,000 BtuH 18,000 BtuH 24,000 BtuH	
Universal Floor/Ceiling	9,000 BtuH 12,000 BtuH 18,000 BtuH 24,000 BtuH	
High Wall*	9,000 BtuH 12,000 BtuH 18,000 BtuH 24,000 BtuH	
(Other High Wall Units available see sales literature)		
Concealed Slim Duct	9,000 BtuH 12,000 BtuH 18,000 BtuH 24,000 BtuH	
Mini -Console	9,000 BtuH 12,000 BtuH 18,000 BtuH	
Branch (BU) Boxes	<p>Model Numbers:</p> <p>FXA2A-D (RFX12A) 1-Port In/2-Ports Out</p> <p>FXA3A-D (RFX13A) 1-Port In/3-Ports Out</p>	
Copper Y-Branch Connectors	LN01300110 (FQ01A/A)	Liquid & Gas Connectors
		

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