

# Inverter Heat Pump Systems • Up to 17 SEER2 • Platinum Series

## Product Specifications



**MAINLINE®**

Reliably Comfortable.®

The Mainline Platinum series is an inverter driven, high efficiency, forced air ducted heating & cooling system. This system is AHRI Matched with a multi position air handler, or cased coil for fossil fuel applications. This Ultra Heat system provides heating down to -22°, with a smaller footprint with dramatically lower noise levels. These systems utilize R-410A refrigerant, and are compatible with standard 24 volt thermostats. 208/230 volt, single phase only.



Cased Coil



Air Handler

## FEATURES

- Low ambient cooling operation to -5°F
- Heating to -22°F
- Air handler is pre-charged with R-410A refrigerant with service valves. Downflow configurable with optional kit.
- Multi position coil is pre-charged with R-410A refrigerant and equipped with service valves.
- Base pan heater
- 2 to 5 Ton capacities
- Flare connection
- Universal indoor unit compatibility
- High & low pressure protection
- Intelligent defrost eliminates unnecessary defrost cycles & prevents cold airflow at startup
- Optional electric heater kits available
- Side discharge condenser
- Dual condenser fans on 4-5 ton
- Field configurable outdoor unit capacity
- Diagnostic troubleshooting
- Adjustable defrost
- Field selectable airflow levels
- Pre-Charged for 25' of line set
- Over 100' maximum line set length
- Precision electronic expansion valve

Available 208/230 Volt Models	
Outdoor Model	Indoor Air Handler Model
BB36-24WADU (TU36-24WADU)	BBD36-24AH2ADU (TUD36-24AH2ADU)
BB60-48WADU (TU60-48WADU)	BBD60-24AH2ADU (TUD60-24AH2ADU)

BB Prefix = Mainline Branded Product TU Prefix = Tosot Branded Product

Available Electric Heater Kit Models – 208/230-1	
Model	KW/Voltage
HNRD8	8KW – 208/230-1
HNRD10	10KW – 208/230-1
HNRD15	15KW – 208/230-1
HNRD20	20KW – 208/230-1

Available Cased Coil Models	
Model	Nom. Cap
TCAT24FNAA	2 Ton
TCAT36FNAA	3 Ton
TCAT48HNAA	4 Ton
TCAT60HNAA	5 ton

Available Accessories	
Model	Desc.
EN01400050	Downflow kit for 36-24 Air Handler
EN01400040	Downflow kit for 60-24 Air Handler

## Warranty

See warranty information for more details.

All dimensions listed are nominal. MAINLINE® reserves the right to make product and material changes at any time without notice.



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## TECHNICAL SPECIFICATIONS

Outdoor Model	Indoor Model	Nominal BTUH *	Clg. Cap. BTUH *	Htg. Cap. BTUH *	SEER2	EER2
<b>AIR HANDLER PERFORMANCE</b>						
BB36-24WADU (TU36-24WADU)	BBD36-24AH2ADU (TUD36-24AH2ADU)	24,000	12,000 - 24,000	12,000 - 30,000	17	12
BB36-24WADU (TU36-24WADU)	BBD36-24AH2ADU (TUD36-24AH2ADU)	36,000	18,000 - 37,000	18,000 - 38,000	16	10
BB60-48WADU (TU60-48WADU)	BBD60-24AH2ADU (TUD60-24AH2ADU)	48,000	34,000 - 48,000	34,000 - 52,000	17	11
BB60-48WADU (TU60-48WADU)	BBD60-24AH2ADU (TUD60-24AH2ADU)	60,000	35,000 - 54,000	35,000 - 60,000	15.8	10
<b>COIL PERFORMANCE</b>						
BB36-24WADU (TU36-24WADU)	TCAT24FNAA	24,000	12,000 - 24,000	12,000 - 30,000	15.2	11
BB36-24WADU (TU36-24WADU)	TCAT36FNAA	36,000	18,000 - 37,000	18,000 - 38,000	15.2	9.5
BB60-48WADU (TU60-48WADU)	TCAT48HNAA	48,000	34,000 - 48,000	34,000 - 52,000	15.2	10
BB60-48WADU (TU60-48WADU)	TCAT60HNAA	60,000	35,000 - 54,000	35,000 - 60,000	15.2	9.5

\* Field selectable

Outdoor Model	Indoor Model	Liq. Conn. (Flare)	Suct. Conn. (Flare)	Refrig. Charge	Charge Length	Max Pipe Length	Add'l Charge Oz/Ft.	Max. Vert. Rise
<b>AIR HANDLERS</b>								
BB36-24WADU (TU36-24WADU)	BBD36-24AH2ADU (TUD36-24AH2ADU)	3/8"	3/4"	148 Oz.	25'	100'	.2	50'
BB60-48WADU (TU60-48WADU)	BBD60-24AH2ADU (TUD60-24AH2ADU)	3/8"	3/4"	220 Oz.	25'	100'	.2	50'
<b>COILS</b>								
BB36-24WADU (TU36-24WADU)	TCAT24FNAA	3/8"	3/4"	9 Oz.	25'	100'	.2	50'
BB36-24WADU (TU36-24WADU)	TCAT36FNAA	3/8"	3/4"	9 Oz.	25'	100'	.2	50'
BB60-48WADU (TU60-48WADU)	TCAT48HNAA	3/8"	3/4"	9 Oz.	25'	100'	.2	50'
BB60-48WADU (TU60-48WADU)	TCAT60HNAA	3/8"	3/4"	9 Oz.	25'	100'	.2	50'



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## ELECTRICAL SPECIFICATIONS

Model	MOP	MCA	Indoor Weight	Outdoor Weight
BB36-24WADU (TU36-24WADU)	35	24	148 Lbs.	217 Lbs.
BB60-48WADU (TU60-48WADU)	45	35	179 Lbs.	308 Lbs.
TCAT24FNAA	-	-	64 Lbs.	-
TCAT36FNAA	-	-	64 Lbs.	-
TCAT48HNAA	-	-	95 Lbs.	-
TCAT60HNAA	-	-	95 Lbs.	-

SEER2=Seasonal Energy Efficiency Ratio – M1 Compliant  
 EER2=Energy Efficiency Ratio – M1 Compliant  
 HSPF2=Heating Season Performance Factor – M1 Compliant  
 COP=Coefficient of Performance  
 MOP = Maximum Overcurrent Protection  
 MCA = Minimum Circuit Ampacity

Indoor Model	No heat Kit		8kw Heat Kit		10kw Heat Kit		15kw Heat Kit		20kw Heat Kit	
	MOP	MCA	MOP	MCA	MOP	MCA	MOP	MCA	MOP	MCA
BBD36-24AH2ADU (TUD36-24AH2ADU)	15	5	45	40	60	52	90**	78**	NA	NA
BBD60-24AH2ADU (TUD60-24AH2ADU)	15	5	45	40	60	52	90**	78**	120**	100**

\*\* Additional jumper bar required for single circuit power source

## SYSTEM COMBINATION CHART

AHRI Number	Brand	Outdoor Model	Indoor Model	SEER2	EER2	HSPF2	Clg. Cap.	Htg. Cap.
207196961 206414272	Mainline TOSOT	BB36-24WADU * (TU36-24WADU)*	BBD36-24AH2ADU* TUD36-24AH2ADU*	17	12	9.0	24,000	24,000
207196958 206414273	Mainline TOSOT	BB36-24WADU ** (TU36-24WADU)**	BBD36-24AH2ADU** TUD36-24AH2ADU**	16	10	9.0	36,000	36,000
207196958 206414275	Mainline TOSOT	BB60-48WADU *** (TU60-48WADU)***	BBD60-24AH2ADU*** TUD60-24AH2ADU***	17	11	9.0	48,000	48,000
207196960 206414274	Mainline TOSOT	BB60-48WADU **** (TU60-48WADU)****	BBD60-24AH2ADU**** TUD60-24AH2ADU****	15.8	10	9.0	54,000	54,000
212361365 212521243	Mainline TOSOT	BB36-24WADU * (TU36-24WADU)*	TCAT24FNAA *	15.2	11	8.5	24,000	24,000
212521244 212361366	Mainline TOSOT	BB36-24WADU ** (TU36-24WADU)**	TCAT36FNAA **	15.2	9.5	8.5	36,000	36,000
212521245 212361367	Mainline TOSOT	BB60-48WADU *** (TU60-48WADU)***	TCAT48HNAA ***	15.2	10	8.5	48,000	48,000
212521246 212361368	Mainline TOSOT	BB60-48WADU **** (TU60-48WADU)****	TCAT60HNAA ****	15.2	9.5	8.5	54,000	54,000

\* Field configured as 2 ton \*\* Field configured as 3 ton \*\*\* Field configured as 4 ton \*\*\*\* Field configured as 5 ton

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## BB36-24WADU & BBD36-24AH2ADU - Field configured as 2 ton

HEATING PERFORMANCE													
Outdoor Ambient Temperature (DB)		Return Air Temperature											
		70°F (DB) / 59°F (WB)			75°F (DB) / 63°F (WB)			80°F (DB) / 67°F (WB)			90°F (DB) / 73°F (WB)		
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)
MAX OUTPUT*	-22°F	18700	1.40	3920	18700	1.40	3920	18700	1.40	3920	20000	1.48	3973
	-20°F	20500	1.52	3960	20450	1.51	3960	20400	1.51	3960	21700	1.58	4013
	-15°F	22000	1.61	4000	22000	1.61	4000	22000	1.61	4000	23300	1.68	4053
	-10°F	23000	1.64	4100	23000	1.64	4100	23000	1.64	4100	24300	1.71	4153
	-5°F	24000	1.67	4200	24000	1.67	4200	24000	1.67	4200	25300	1.74	4253
	0°F	24000	1.85	3800	24000	1.85	3800	24000	1.85	3800	25300	1.92	3853
	5°F	24000	2.10	3350	24000	2.10	3350	24000	2.10	3350	25300	2.18	3403
	10°F	24000	2.20	3200	24000	2.20	3195	24000	2.21	3190	25300	2.29	3243
	15°F	24000	2.31	3050	24000	2.31	3045	24000	2.31	3040	25300	2.40	3093
	17°F	24000	2.43	2900	24000	2.43	2900	24000	2.43	2900	25300	2.51	2953
	20°F	24000	2.61	2700	24000	2.61	2700	24000	2.61	2700	25300	2.69	2753
	25°F	24000	2.81	2500	24000	2.81	2500	24000	2.81	2500	25300	2.90	2553
	30°F	24000	3.06	2300	24000	3.06	2300	24000	3.06	2300	25300	3.15	2353
	35°F	24000	3.20	2200	24000	3.20	2200	24000	3.20	2200	25300	3.29	2253
	40°F	24000	3.32	2120	24000	3.32	2120	24000	3.32	2120	25300	3.41	2173
	45°F	24000	3.43	2050	24500	3.50	2050	25000	3.57	2050	26300	3.67	2103
	47°F	26000	3.85	1980	26000	3.85	1980	26000	3.85	1980	27300	3.94	2033
	50°F	26800	3.89	2020	26750	3.89	2015	26700	3.89	2010	28000	3.98	2063
	55°F	27400	3.90	2060	27400	3.91	2055	27400	3.92	2050	28700	4.00	2103
	60°F	28000	3.91	2100	28000	3.91	2100	28000	3.91	2100	29300	3.99	2153
	65°F	28000	3.83	2140	28000	3.95	2080	28000	4.06	2020	29300	4.14	2073
70°F	28000	3.76	2180	28000	3.96	2070	28000	4.19	1960	29300	4.27	2013	
75°F	28000	3.71	2210	28000	3.99	2055	28000	4.32	1900	29300	4.40	1953	
80°F													
86°F													

## BB36-24WADU & BBD36-24AH2ADU - Field configured as 3 ton

HEATING PERFORMANCE													
Outdoor Ambient Temperature (DB)		Return Air Temperature											
		70°F (DB) / 59°F (WB)			75°F (DB) / 63°F (WB)			80°F (DB) / 67°F (WB)			90°F (DB) / 73°F (WB)		
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)
MAX OUTPUT*	-22°F	18400	1.30	4150	18200	1.28	4170	18000	1.26	4190	20000	1.34	4390
	-20°F	19800	1.35	4290	19550	1.33	4310	19300	1.31	4330	21300	1.38	4530
	-15°F	21100	1.40	4430	20850	1.37	4450	20600	1.35	4470	22600	1.42	4670
	-10°F	23200	1.50	4530	22950	1.48	4550	22700	1.46	4570	24700	1.52	4770
	-5°F	25200	1.60	4630	25000	1.58	4650	24800	1.56	4670	26800	1.61	4870
	0°F	27600	1.71	4720	26500	1.70	4580	25400	1.68	4440	27400	1.73	4640
	5°F	30000	1.83	4800	28000	1.82	4500	26000	1.81	4200	28000	1.87	4400
	10°F	32500	1.88	5070	30250	1.87	4735	28000	1.87	4400	30000	1.91	4600
	15°F	34000	1.92	5180	32000	1.92	4890	30000	1.91	4600	32000	1.95	4800
	17°F	36000	1.94	5450	33500	1.92	5125	31000	1.89	4800	33000	1.93	5000
	20°F	36000	1.98	5320	34000	1.97	5070	32000	1.95	4820	34000	1.99	5020
	25°F	36000	2.06	5110	34250	2.02	4965	32500	1.98	4820	34500	2.01	5020
	30°F	36000	2.15	4900	34500	2.07	4875	33000	1.99	4850	35000	2.03	5050
	35°F	36400	2.30	4640	34700	2.23	4570	33000	2.15	4500	35000	2.18	4700
	40°F	36933	2.58	4200	34967	2.52	4060	33000	2.47	3920	35000	2.49	4120
	45°F	37289	2.90	3770	35144	2.90	3550	33000	2.90	3330	35000	2.91	3530
	47°F	38000	3.09	3600	35500	3.11	3350	33000	3.12	3100	35000	3.11	3300
	50°F	38000	3.18	3500	35500	3.20	3250	33000	3.22	3000	35000	3.21	3200
	55°F	38000	3.35	3320	35500	3.37	3085	33000	3.39	2850	35000	3.36	3050
	60°F	38000	3.54	3150	34000	3.41	2925	30000	3.26	2700	32000	3.23	2900
	65°F	38000	3.71	3000	34000	3.56	2800	30000	3.38	2600	32000	3.35	2800
70°F	38000	3.91	2850	34000	3.76	2650	30000	3.59	2450	32000	3.54	2650	
75°F	38000	3.99	2790	34000	3.85	2590	30000	3.68	2390	32000	3.62	2590	
80°F													
86°F													

\* Maximum output values not based on AHRI test conditions



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Product Specifications



## BB60-48WADU & BBD60-24AH2ADU - Field configured as 4 ton

HEATING PERFORMANCE													
Outdoor Ambient Temperature (DB)		Return Air Temperature											
		70°F (DB) / 59°F (WB)			75°F (DB) / 63°F (WB)			80°F (DB) / 67°F (WB)			90°F (DB) / 73°F (WB)		
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)
MAX OUTPUT*	-22°F	26400	1.36	5700	26100	1.34	5725	25800	1.32	5750	27300	1.37	5820
	-20°F	27450	1.39	5800	27175	1.37	5825	26900	1.35	5850	28400	1.41	5920
	-15°F	28500	1.42	5900	28200	1.39	5930	27900	1.37	5960	29400	1.43	6030
	-10°F	30900	1.50	6050	30800	1.48	6080	30700	1.47	6110	32200	1.53	6180
	-5°F	34200	1.62	6200	33850	1.59	6230	33500	1.57	6260	35000	1.62	6330
	0°F	38700	1.73	6560	37650	1.70	6510	36600	1.66	6460	38100	1.71	6530
	5°F	43000	1.82	6920	41350	1.78	6790	39700	1.75	6660	41200	1.79	6730
	10°F	44500	1.89	6905	42850	1.86	6748	41200	1.83	6590	42700	1.88	6660
	15°F	46200	1.94	6990	44150	1.91	6760	42100	1.89	6530	43600	1.94	6600
	17°F	48000	2.04	6880	46000	2.02	6680	44000	1.99	6480	45500	2.04	6550
	20°F	48000	2.22	6350	46500	2.16	6315	45000	2.10	6280	46500	2.15	6350
	25°F	48000	2.31	6090	47000	2.26	6085	46000	2.22	6080	47500	2.26	6150
	30°F	48000	2.43	5800	47500	2.39	5825	47000	2.35	5850	48500	2.40	5920
	35°F	48000	2.61	5400	47500	2.57	5425	47000	2.53	5450	48500	2.58	5520
	40°F	48000	2.81	5000	47600	2.82	4950	47200	2.82	4900	48700	2.87	4970
	45°F	48000	3.06	4600	47650	3.05	4575	47300	3.05	4550	48800	3.10	4620
	47°F	50000	3.48	4210	48750	3.35	4265	47500	3.22	4320	49000	3.27	4390
	50°F	50700	3.42	4350	49350	3.42	4225	48000	3.43	4100	49500	3.48	4170
55°F	51400	3.35	4500	49950	3.51	4175	48500	3.69	3850	50000	3.74	3920	
60°F	52000	3.28	4650	50500	3.59	4125	49000	3.99	3600	50500	4.03	3670	
65°F	52000	3.18	4800	50500	3.61	4100	49000	4.22	3400	50500	4.27	3470	
70°F	52000	3.08	4950	50500	3.63	4075	49000	4.49	3200	50500	4.53	3270	
75°F	52000	2.99	5100	50500	3.61	4100	49000	4.63	3100	50500	4.67	3170	
80°F													
86°F													

## BB60-48WADU & BBD60-24AH2ADU - Field configured as 5 ton

HEATING PERFORMANCE													
Outdoor Ambient Temperature (DB)		Return Air Temperature											
		70°F (DB) / 59°F (WB)			75°F (DB) / 63°F (WB)			80°F (DB) / 67°F (WB)			90°F (DB) / 73°F (WB)		
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)
MAX OUTPUT*	-22°F	27000	1.25	6350	26500	1.22	6380	26000	1.19	6410	27500	1.24	6490
	-20°F	29500	2.46	3520	29000	1.70	5000	28500	1.29	6480	30000	1.34	6560
	-15°F	32000	1.40	6700	31500	1.39	6630	31000	1.38	6560	32500	1.43	6640
	-10°F	34500	2.63	3850	33750	1.88	5270	33000	1.45	6690	34500	1.49	6770
	-5°F	37000	1.55	7000	36000	1.53	6910	35000	1.50	6820	36500	1.55	6900
	0°F	40500	1.68	7080	39500	1.64	7040	38500	1.61	7000	40000	1.66	7080
	5°F	44000	1.80	7160	43000	1.76	7165	42000	1.72	7170	43500	1.76	7250
	10°F	45500	1.87	7140	44250	1.83	7105	43000	1.78	7070	44500	1.82	7150
	15°F	47250	1.94	7120	45625	1.90	7045	44000	1.85	6970	45500	1.89	7050
	17°F	49000	2.02	7100	47000	1.97	6985	45000	1.92	6870	46500	1.96	6950
	20°F	51000	2.17	6900	49000	2.10	6825	47000	2.04	6750	48500	2.08	6830
	25°F	53000	2.32	6700	51250	2.24	6700	49500	2.17	6700	51000	2.20	6780
	30°F	54000	2.43	6500	53000	2.36	6580	52000	2.29	6660	53500	2.33	6740
	35°F	54000	2.33	6800	53000	2.32	6700	52000	2.31	6600	53500	2.35	6680
	40°F	54800	2.55	6300	53400	2.54	6150	52000	2.54	6000	53500	2.58	6080
	45°F	55500	2.80	5800	53750	2.79	5650	52000	2.77	5500	53500	2.81	5580
	47°F	56000	3.10	5300	54000	3.06	5175	52000	3.02	5050	53500	3.06	5130
	50°F	57000	3.04	5500	54500	3.10	5150	52000	3.18	4800	53500	3.21	4880
55°F	58500	3.09	5550	55250	3.19	5075	52000	3.31	4600	53500	3.35	4680	
60°F	60000	3.26	5400	55000	3.29	4900	50000	3.33	4400	51500	3.37	4480	
65°F	60000	3.32	5300	55000	3.47	4650	50000	3.66	4000	51500	3.70	4080	
70°F	60000	3.38	5200	55000	3.66	4400	50000	4.07	3600	51500	4.10	3680	
75°F	60000	3.45	5100	55000	3.88	4150	50000	4.58	3200	51500	4.60	3280	
80°F													
86°F													

\* Maximum output values not based on AHRI test conditions



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# Inverter Heat Pump Systems • Up to 17 SEER2 • Platinum Series

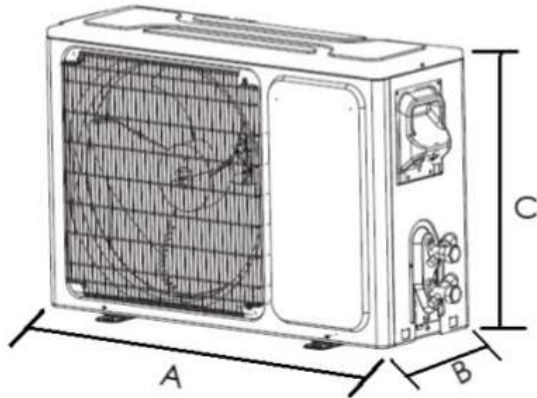
Product Specifications



**MAINLINE**

Reliably Comfortable.®

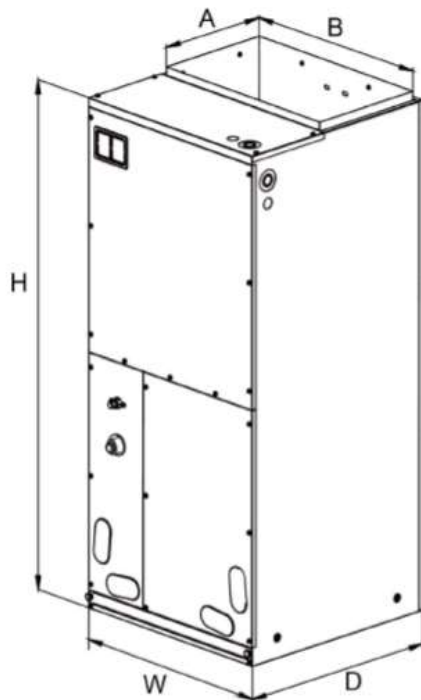
## BB36-24WADU (TU36-24WADU)



Outdoor Unit

	inch
A	37
B	18
C	32.3

## BBD36-24AH2ADU (TUD36-24AH2ADU)



Indoor Unit

W	D	H
21 1/4"	21 1/4"	48 1/4"

Supply Air Opening

A	B
11 5/8"	20"



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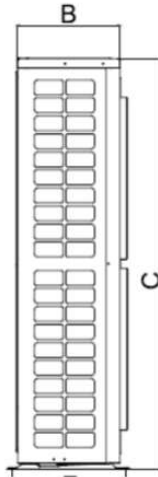
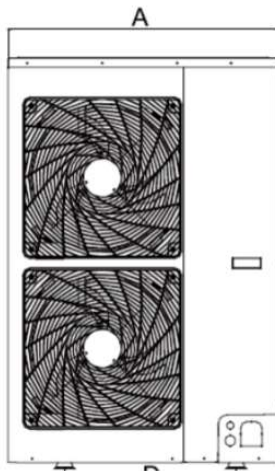
Product Specifications



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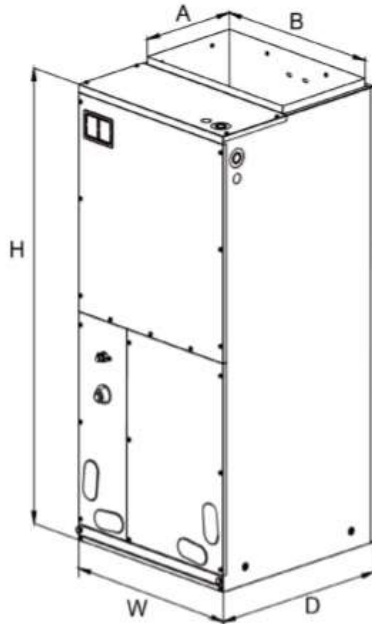
## BB60-48WADU (TU60-48WADU)



Outdoor Unit

	inch
A	37
B	12.6
C	56.3

## BBD60-24AH2ADU (TUD60-24AH2ADU)



Indoor Unit

W	D	H
24 7/8	21 1/4"	57"

Supply Air Opening

A	B
11 5/8"	20"



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# Inverter Heat Pump Systems • Up to 17 SEER2 • Platinum Series

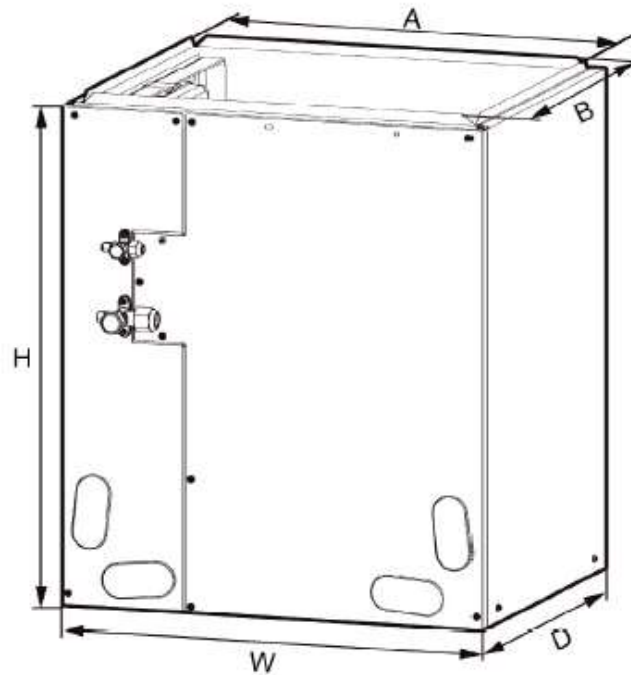
Product Specifications



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## CASED COILS



Model	Nom. Cap.	A	B	H	W	D
TCAT24FNAA	2 Ton	15-7/8"	19-3/8"	23"	17-1/2"	21-1/4"
TCAT36FNAA	3 Ton	15-7/8"	19-3/8"	23"	17-1/2"	21-1/4"
TCAT48HNAA	4 ton	22-7/8"	19-3/8"	28-1/2"	24-1/2"	21-1/4"
TCAT60HNAA	5 Ton	22-7/8"	19-3/8"	28-1/2"	24-1/2"	21-1/4"



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