



# ENGINEERING DATA

Inverter Multi Split Unit Air Conditioner  
Wall Mounted  
Heatpump [60Hz]

**2MX-A Series**



**R410A**

ED5WM12R-NA21V1



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# Introduction

## Model Name and Power Supply

Indoor Unit	Outdoor Unit	Power Supply
CTX07AXVJU	2MX18AXVJU	1Phase, 208/230V, 60Hz
CTX09AXVJU		
CTX12AXVJU		

## Nomenclature

### Indoor Unit

Definition	Description
Unit Category	<b>C</b> : Multi System
Product Type	<b>T</b> : Wall Mounted
System	<b>X</b> : Inverter, Heatpump
Capacity Indication*	<b>07</b> : 7,000 Btu/h
Major Design Category	<b>A</b> : A Series
Factory Origin	<b>X</b> : Malaysia
Power Supply	<b>VJ</b> : 1Phase / 60Hz / 208/230V
Country	<b>U</b> : United States

### Outdoor Unit

Definition	Description
Indoor Quantity	<b>2</b> : 2 Ports System
Unit Category	<b>M</b> : Multi System
System	<b>X</b> : Inverter Heatpump
Capacity Indication*	<b>18</b> : 18,000 Btu/h
Major Design Category	<b>A</b> : A Series
Factory Origin	<b>X</b> : Malaysia
Power Supply	<b>VJ</b> : 1Phase / 60Hz / 208/230V
Country	<b>U</b> : United States

**Remark:**

\*Capacity value under Nomenclature is an indication.  
Please refer to Specifications Data for exact capacity value.

# Functions

Category	Functions	CTX07/09/12A 2MX18A
Basic Function	Inverter	●
	Operation Limit for Cooling (°CDB)(O/D)	10 - 46
	Operation Limit for Cooling (°FDB)(O/D)	50 - 114.8
	Operation Limit for Heating (°CWB)(O/D)	-15 - 18
	Operation Limit for Heating (°FWB)(O/D)	5 - 64.4
Compressor	Scroll Compressor	-
	Swing Compressor	●
	Rotary Compressor	-
Comfortable Airflow	Power-airflow Flap	●
	Power-airflow Dual Flaps	-
	Power-airflow Diffuser	-
	Wide Angle Louvers	●
	Vertical Auto-Swing (Up and Down)	●
	Horizontal Auto-Swing (Right and Left)	-
	3D Airflow	-
	Breeze Airflow	-
Comfort Control	Auto Fan Speed	●
	Indoor Unit Quiet Operation	●
	Intelligent Eye Operation	-
	Automatic Defrosting	●
Operation	Automatic Operation	●
	Programme Dry Function	●
	Fan Only	●
Lifestyle Convenience	Powerful Operation (Non Inverter)	-
	Inverter Powerful Operation	●
	Energy Saving Function	●
	Sleep Mode	●
	Indoor Unit ON/OFF Button	●
	R/C with Backlight	●
	Signal Receiving Sign (R/C)	●
	Set Temperature Display (R/C)	●
Health & Clean	Saranet Filter	-
	Catechin Filter / Green Tea Filter	●
	Titanium Apatite Air-Purifying Filter	●
	PM 2.5 Filter	-
	Streamer	-
	Plasma	-
	Wipe Clean Flat Panel	●
Timer	Weekly Timer Operation (Wired R/C)	-
	24-hour ON/OFF Timer (R/C)	●
	Countdown ON/OFF Timer (R/C)	-
Worry Free (Reliability & Durability)	Auto Restart (after Power Failure)	●
	Self-diagnosis	●
	Anti-corrosion Treatment of Outdoor Heat Exchanger	●
Flexibility	Pre-charged Piping Length	98-1/2 ft
	Either Side Drain (Right or Left)	●
Remote Control	BAG Connectivity	-
	WIFI Connectivity	●
	DIII-NET Connectivity	-
Remote Controller	Wireless	BRC52B63
	Wired (Optional)	BRC51D61

Note: ● : Available  
 - : Not Available  
 ●\* : Optional (Refer to DAMA Spare Part team for more details on optional items.)

# Specifications

## System

Model	Indoor		CTX07AXVJU, CTX09AXVJU, CTX12AXVJU	
	Outdoor		2MX18AXVJU	
			Cooling	Heating
Rated Capacity (Min. ~ Max.)	kW		4.98 (0.88 - 5.13)	4.98 (0.73 - 5.28)
	Btu/h		17,000 (3,000 - 17,500)	17,000 (2,500 - 18,000)
Moisture Removal	gal/h		0.34	
Rated Running Current	A		7.91	6.49
Rated Power Consumption	W		1700	1424
EER	Btu/h/W		10	N/A
SEER			17	N/A
COP	W/W		N/A	3.5
HSPF			N/A	9
Drawing No.			3D132856A	
Document No. (Set)			3D132856	

Note: Specifications shown above is based on the rated combination of Class 09 + Class 09

## Indoor

Model			CTX07AXVJU	
			Cooling	Heating
Rated capacity*			7 kBtu/h Class	
Front Panel Colour			White	
Airflow Rate	Turbo	CFM	350	350
	High	CFM	310	310
	Medium	CFM	280	280
	Low	CFM	249	249
	Quiet	CFM	142	195
Sound Pressure Level (H/M/L/Q)		dBA	37/33/30/19	36/32/29/24
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, AUTO, QUIET, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	53	
	Running Current (Rated)	A	0.17	
	Power Consumption (Rated)	W	38	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)		inch (mm)	11-1/3 x 30-29/32 x 9-27/32 (288 x 785 x 250)	
Packaged Dimensions (H x W x D)		inch (mm)	13-7/8 x 32-3/4 x 12-3/8 (350 x 830 x 314)	
Weight		lbs (kg)	20 (9)	
Gross Weight		lbs (kg)	25 (11)	
Condensate Drain Size		mm	19.05	
Drawing No.			3D132851	
Document No. (Set)			3D132856	

Note:\* Refer to specifications data for 'Combination Capacity'

- 1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.  
 2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING		HEATING	
INDOOR: 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB)		INDOOR: 70°FDB (21.1°CDB)	
OUTDOOR: 95°FDB (35°CDB)		OUTDOOR: 47°FDB (8.3°CDB) / 43°FWB(6.1°CWB)	

Model			CTX09AXVJU	
			Cooling	Heating
Rated capacity*			9 kBtu/h Class	
Front Panel Colour			White	
Airflow Rate	Turbo	CFM	402	402
	High	CFM	350	350
	Medium	CFM	300	300
	Low	CFM	249	249
	Quiet	CFM	142	195
Sound Pressure Level (H/M/L/Q)		dBA	42/36/30/19	41/35/29/24
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, AUTO, QUIET, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	53	
	Running Current (Rated)	A	0.17	
	Power Consumption (Rated)	W	38	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)		inch (mm)	11-1/3 x 30-29/32 x 9-27/32 (288 x 785 x 250)	
Packaged Dimensions (H x W x D)		inch (mm)	13-7/8 x 32-3/4 x 12-3/8 (350 x 830 x 314)	
Weight		lbs (kg)	20 (9)	
Gross Weight		lbs (kg)	25 (11)	
Condensate Drain Size		mm	19.05	
Drawing No.			3D132851	
Document No. (Set)			3D132856	

Note:\* Refer to specifications data for 'Combination Capacity'

Model			CTX12AXVJU	
			Cooling	Heating
Rated capacity*			12 kBtu/h Class	
Front Panel Colour			White	
Airflow Rate	Turbo	CFM	470	470
	High	CFM	430	430
	Medium	CFM	340	340
	Low	CFM	249	249
	Quiet	CFM	142	195
Sound Pressure Level (H/M/L/Q)		dBA	46/39/30/19	45/38/29/24
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, AUTO, QUIET, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	53	
	Running Current (Rated)	A	0.17	
	Power Consumption (Rated)	W	38	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)		inch (mm)	11-1/3 x 30-29/32 x 9-27/32 (288 x 785 x 250)	
Packaged Dimensions (H x W x D)		inch (mm)	13-7/8 x 32-3/4 x 12-3/8 (350 x 830 x 314)	
Weight		lbs (kg)	20 (9)	
Gross Weight		lbs (kg)	25 (11)	
Condensate Drain Size		mm	19.05	
Drawing No.			3D132851	
Document No. (Set)			3D132856	

Note:\* Refer to specifications data for 'Combination Capacity'

- 1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.
- 2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING	HEATING
INDOOR: 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB)	INDOOR: 70°FDB (21.1°CDB)
OUTDOOR: 95°FDB (35°CDB)	OUTDOOR: 47°FDB (8.3°CDB) / 43°FWB(6.1°CWB)



**Outdoor**

Model		2MX18AXVJU	
		Cooling	Heating
<b>Capacity</b>		--	
Power Consumption	W	--	
Running Current	A	--	
Casing Colour		IVORY WHITE	
Airflow Rate	High	CFM	1170
Sound Pressure Level		dBA	51
Fan	Type	PROPELLER	
	Drive	DIRECT	
Fan Motor	Type	DIRECT CURRENT	
	Index of protection (IP)	IP 24	
	Insulation Grade	E	
	Running Current (Rated)	A	0.37
	Power Consumption (Rated)	W	51
	Motor Output	W	25
Poles		8	
Compressor	Type	HERMETIC SWING	
	Model	2YC36HXD	
	Oil type	DAPHNE FVC50K	
	Oil amount	oz (cm <sup>3</sup> )	22 (650)
Heat Exchanger Type		FIN TUBE	
Starting Current	A	9.50	
Dimensions (H x W x D)	inch (mm)	21-11/16 x 26-1/2 x 11-3/16 (550 x 675 x 284)	
Packaged Dimensions (H x W x D)	inch (mm)	24-1/64 x 31-3/8 x 15-1/8 (610 x 801 x 384)	
Weight	lbs (kg)	77 (35)	
Gross Weight	lbs (kg)	84 (38)	
Piping Connections	Liquid	inch (mm)	1/4 (6.35)
	Gas	inch (mm)	3/8 (9.52)
Refrigerant	Type	R410A	
	Charge	lbs (kg)	2.65 (1.2)
Max. Interunit Piping Length	ft (m)	98-1/2 (30) - Total; 82 (25) - Each	
Max. Interunit Height Difference	ft (m)	49-1/4 (15)	
Chargeless	ft (m)	98-1/2 (30)	
Drawing No.	3D132853		
Document No. (Set)	3D132856		

Note:\* Refer to specifications data for 'Combination Capacity'

- 1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.
- 2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING	HEATING
INDOOR: 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB)	INDOOR: 70°FDB (21.1°CDB)
OUTDOOR: 95°FDB (35°CDB)	OUTDOOR: 47°FDB (8.3°CDB) / 43°FWB(6.1°CWB)

## Combination Capacity

Model : CTX07/09/12A

### Cooling

Combination of Indoor	Type of Indoor		Capacity of each indoor unit			
			Each Capacity (kBtu/h)		Total Capacity (kBtu/h)	
	A Room	B Room	A Room	B Room	Rating	(Min ~ Max)
07	Wall	Wall	7.00	-	7.00	3.00 ~ 9.50
09	Wall	Wall	9.00	-	9.00	3.00 ~ 9.70
12	Wall	Wall	12.00	-	12.00	3.00 ~ 12.60
07 + 07	Wall	Wall	7.00	7.00	14.00	6.00 ~ 14.50
07 + 09	Wall	Wall	7.00	9.00	16.00	6.00 ~ 16.50
07 + 12	Wall	Wall	6.26	10.74	17.00	6.00 ~ 17.50
09 + 09	Wall	Wall	8.50	8.50	17.00	6.00 ~ 17.50
09 + 12	Wall	Wall	7.29	9.71	17.00	6.00 ~ 17.50
12 + 12	Wall	Wall	8.50	8.50	17.00	6.00 ~ 17.50

Combination of Indoor	Capacity of each indoor unit				
	Total Input (W)		Total Current (A)		Power factor (%)
	Rating	(Min ~ Max)	Rating	(Min ~ Max)	Rating
07	560	300 ~ 900	2.6	1.4 ~ 4.2	93
09	850	300 ~ 900	4.0	1.4 ~ 4.2	93
12	1240	300 ~ 1300	5.8	1.4 ~ 6.0	93
07 + 07	1260	600 ~ 1500	5.9	2.8 ~ 7.0	93
07 + 09	1660	600 ~ 1700	7.8	2.8 ~ 7.9	93
07 + 12	1700	600 ~ 1820	7.9	2.8 ~ 8.5	93
09 + 09	1700	600 ~ 1820	7.9	2.8 ~ 8.5	93
09 + 12	1700	600 ~ 1820	7.9	2.8 ~ 8.5	93
12 + 12	1700	600 ~ 1820	7.9	2.8 ~ 8.5	93

### Heating

Combination of Indoor	Type of Indoor		Capacity of each indoor unit			
			Each Capacity (kBtu/h)		Total Capacity (kBtu/h)	
	A Room	B Room	A Room	B Room	Rating	(Min ~ Max)
07	Wall	Wall	7.00	-	7.00	2.50 ~ 11.00
09	Wall	Wall	9.00	-	9.00	2.50 ~ 12.00
12	Wall	Wall	12.00	-	12.00	2.50 ~ 14.00
07 + 07	Wall	Wall	7.00	7.00	14.00	5.00 ~ 15.00
07 + 09	Wall	Wall	7.00	9.00	16.00	5.00 ~ 17.00
07 + 12	Wall	Wall	6.26	10.74	17.00	5.00 ~ 18.00
09 + 09	Wall	Wall	8.50	8.50	17.00	5.00 ~ 18.00
09 + 12	Wall	Wall	7.29	9.71	17.00	5.00 ~ 18.00
12 + 12	Wall	Wall	8.50	8.50	17.00	5.00 ~ 18.00

Combination of Indoor	Capacity of each indoor unit				
	Total Input (W)		Total Current (A)		Power factor (%)
	Rating	(Min ~ Max)	Rating	(Min ~ Max)	Rating
07	630	250 ~ 1150	2.9	1.1 ~ 5.3	93
09	750	250 ~ 1230	3.5	1.1 ~ 5.7	93
12	1130	250 ~ 1470	5.3	1.1 ~ 6.8	93
07 + 07	1140	500 ~ 1500	5.3	2.3 ~ 7.0	93
07 + 09	1390	500 ~ 1500	6.5	2.3 ~ 7.0	93
07 + 12	1424	500 ~ 1500	6.7	2.3 ~ 7.0	93
09 + 09	1424	500 ~ 1500	6.7	2.3 ~ 7.0	93
09 + 12	1424	500 ~ 1500	6.7	2.3 ~ 7.0	93
12 + 12	1424	500 ~ 1500	6.7	2.3 ~ 7.0	93

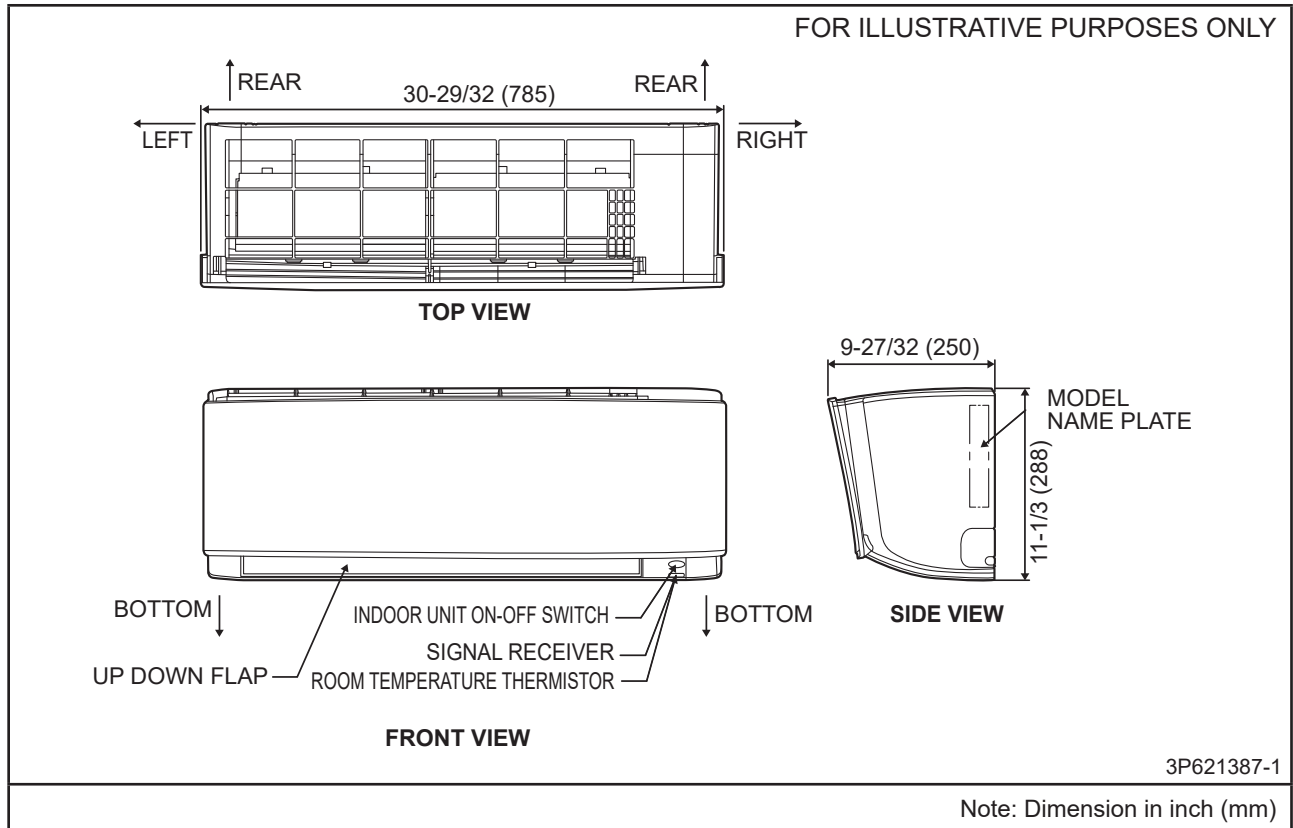
**Note:**

- COOLING CAPACITY IS BASED ON 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB) (INDOOR TEMPERATURE), 95°FDB (35°CDB) / 75°FWB (23.9°CWB) (OUTDOOR TEMPERATURE). HEATING CAPACITY IS BASED ON 70°FDB (21.1°CDB) / 60°FWB (15.6°CWB) (INDOOR TEMPERATURE), 47°FDB (8.3°CDB) / 43°FWB (6.1°CWB) (OUTDOOR TEMPERATURE).
- THE TOTAL CAPACITY OF CONNECTED INDOOR UNITS IS UP TO 24.0 kBtu/h.
- IT IS NOT POSSIBLE TO HAVE ONLY ONE INDOOR UNIT CONNECTED.

# Dimensions

## Indoor Unit

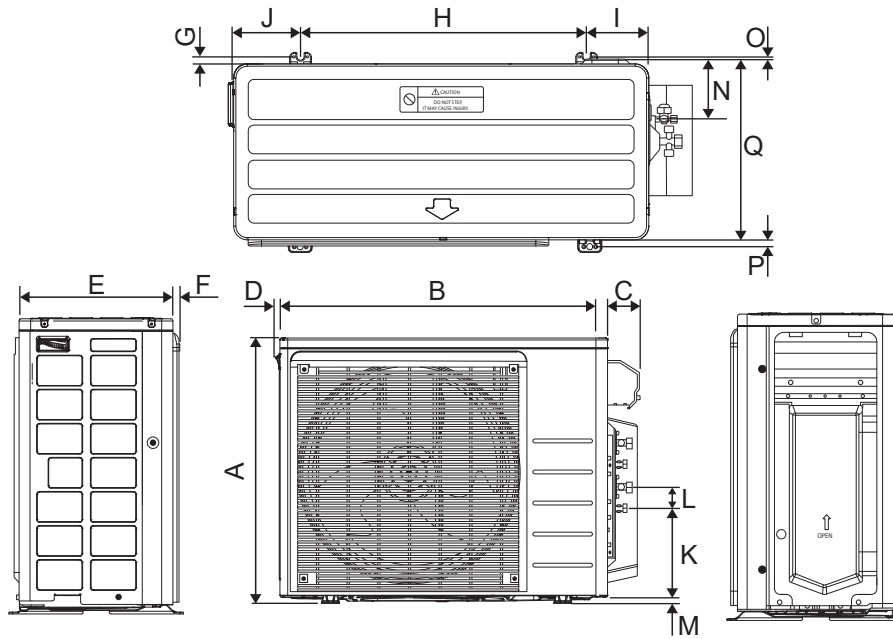
Model : CTX07/09/12A



## Outdoor Unit

Model : 2MX18A

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Dimension Model	A	B	C	D	E	F	G	H	I
18	21-11/16 (550)	26-1/2 (675)	2-11/16 (69)	15/32 (12)	11-3/16 (284)	15/32 (12)	1/2 (13)	18-1/2 (470)	3-13/16 (97)

Dimension Model	J	K	L	M	N	O	P	Q
18	4-1/4 (108)	7-1/16 (180)	1-11/16 (43)	25/32 (20)	3-15/16 (100)	3/16 (5)	7/16 (11)	11-1/2 (292)

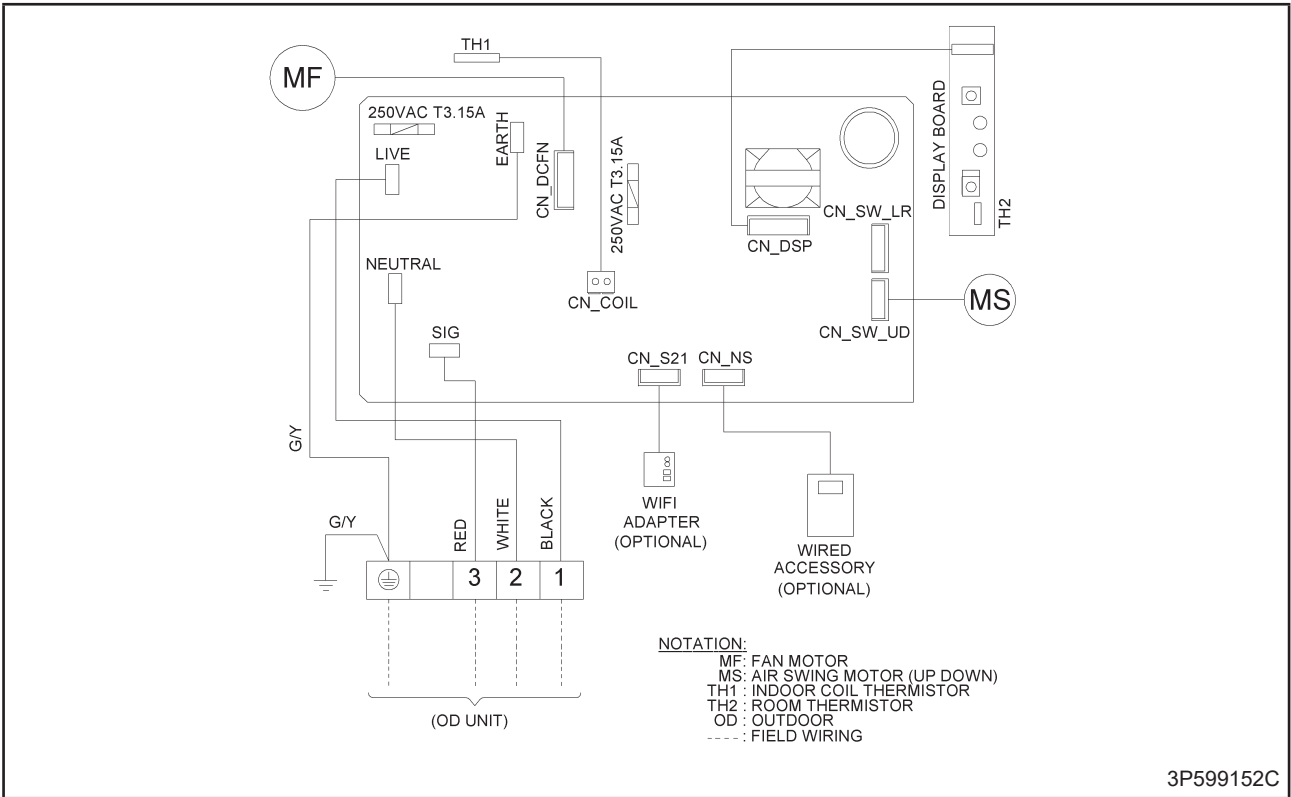
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Note: Dimension in inch (mm)

# Wiring Diagrams

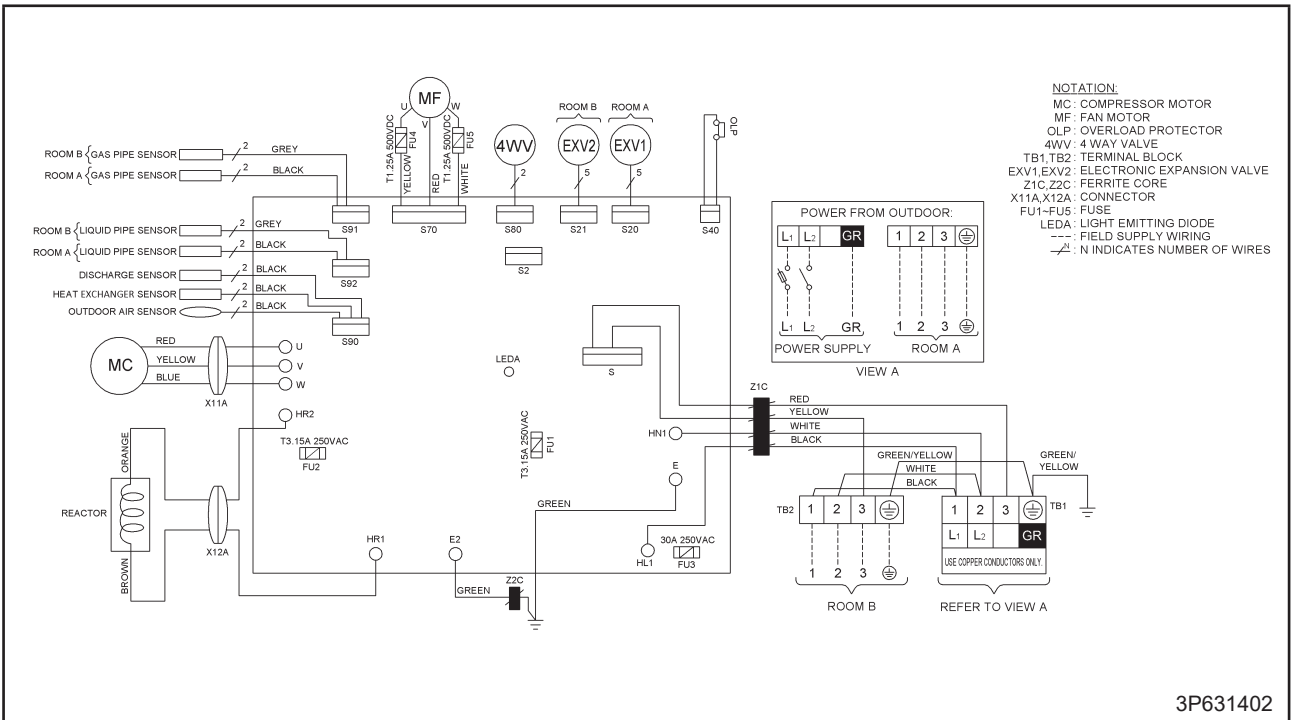
## Indoor Unit

Model : CTX07/09/12A



## Outdoor Unit

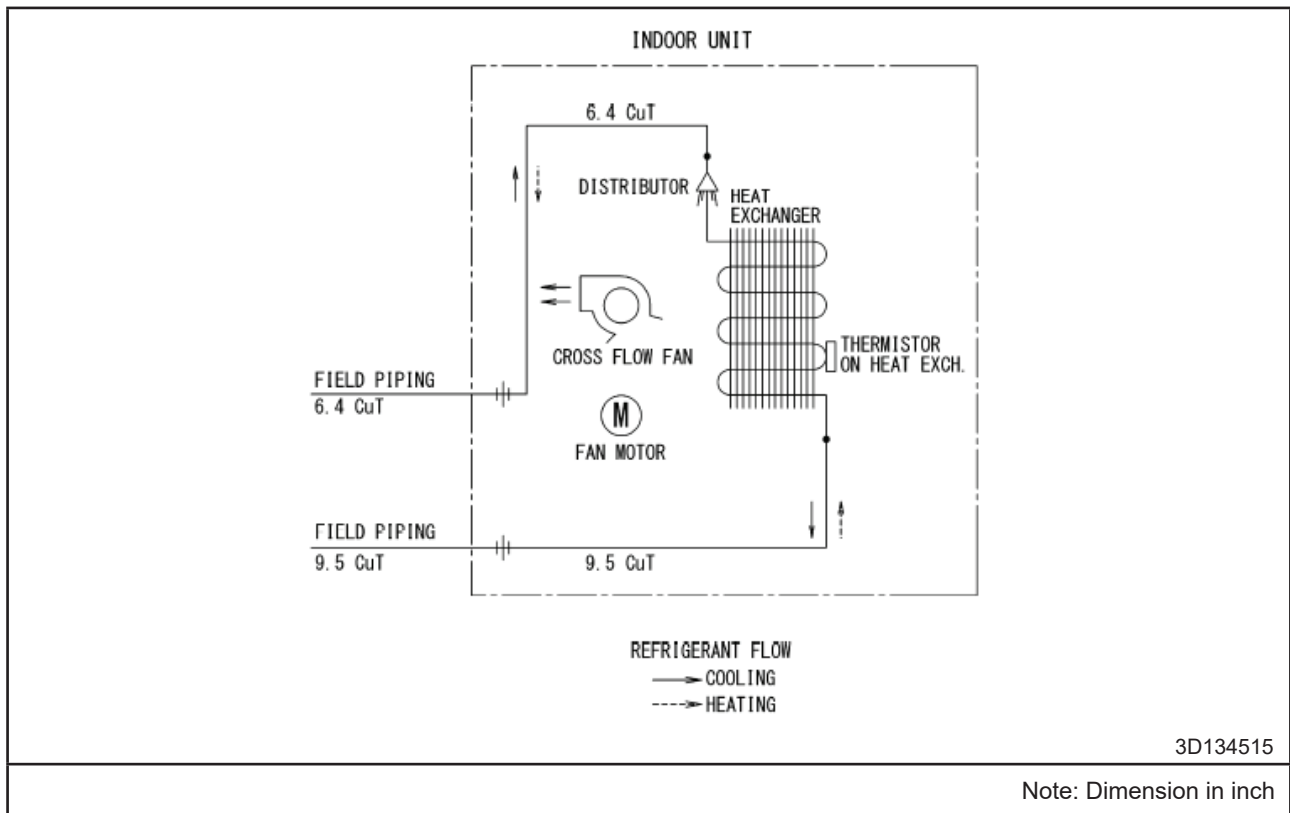
Model : 2MX18A



# Piping Diagrams

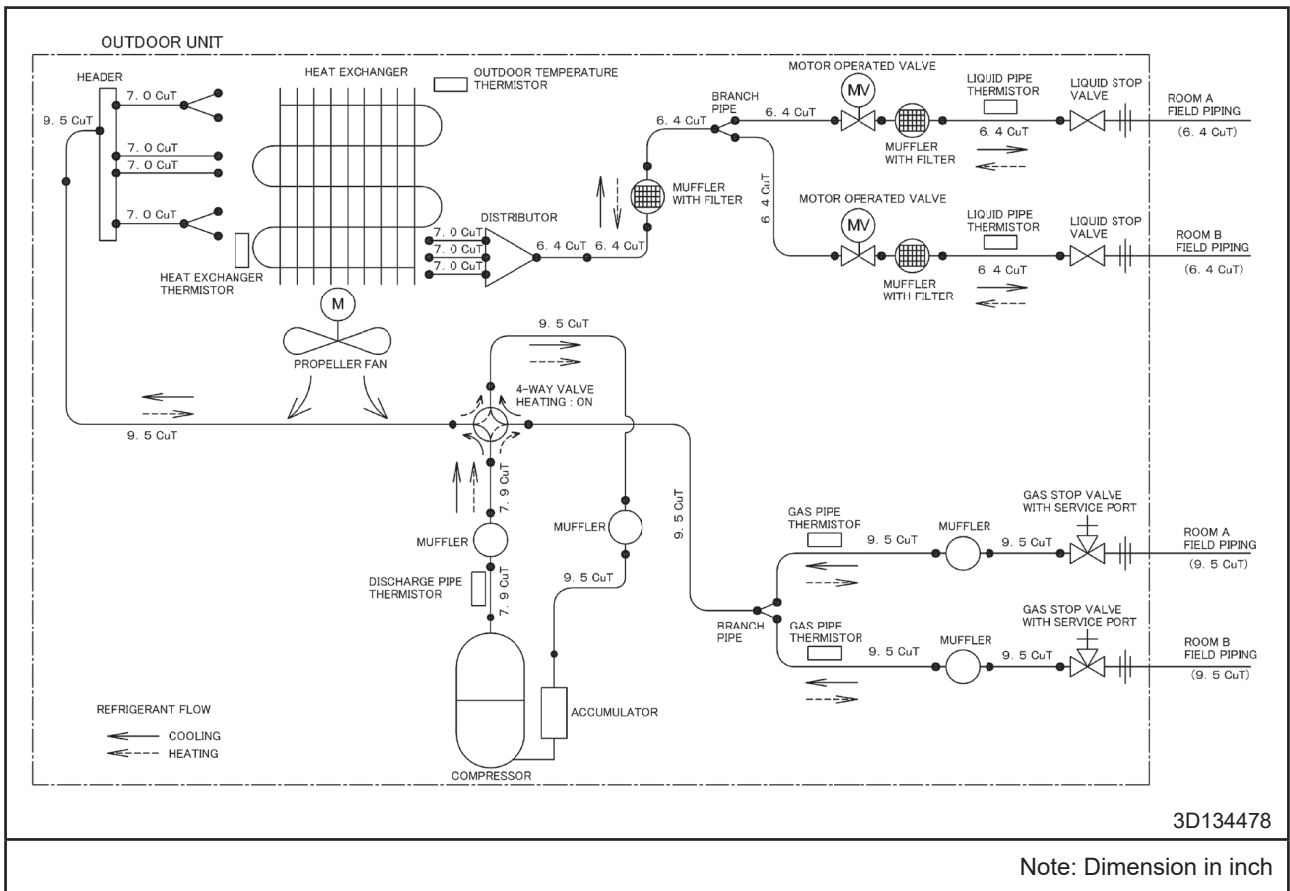
## Indoor Unit

Model : CTX07/09/12A



# Outdoor Unit

Model : 2MX18A



# Capacity Tables

## Cooling

Model : CTX07/09/12A

Combination (Capacity)	Indoor Temperature [°F WB]	Outdoor temperature [°F DB]																							
		68.0			77.0			86.0			89.6			95.0			104.0			109.4			114.8		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
07	57.2	7.17	5.75	0.43	6.84	5.57	0.47	6.52	5.40	0.51	6.39	5.33	0.53	6.19	5.23	0.56	5.86	5.06	0.60	5.80	5.28	0.63	5.57	5.17	0.66
	60.8	7.50	5.64	0.43	7.17	5.48	0.48	6.83	5.31	0.52	6.71	5.25	0.54	6.52	5.16	0.56	6.19	5.01	0.60	6.21	5.27	0.64	5.96	5.16	0.67
	64.4	7.82	5.91	0.44	7.50	5.76	0.48	7.17	5.61	0.52	7.04	5.55	0.54	6.83	5.46	0.56	6.51	5.32	0.60	6.63	5.68	0.65	6.37	5.57	0.68
	67.0	7.98	6.23	0.44	7.65	6.08	0.48	7.32	5.94	0.52	7.19	5.88	0.54	7.00	5.80	0.56	6.68	5.66	0.61	6.94	5.79	0.66	6.67	5.68	0.69
	71.6	8.46	6.01	0.44	8.14	5.88	0.48	7.81	5.76	0.52	7.68	5.71	0.54	7.48	5.63	0.57	7.17	5.51	0.61	7.55	6.03	0.67	7.26	5.92	0.70
09	57.2	8.78	5.86	0.45	8.46	5.74	0.49	8.14	5.63	0.53	8.00	5.58	0.55	7.81	5.51	0.57	7.48	5.40	0.61	8.05	5.98	0.67	7.51	5.79	0.67
	57.2	9.22	7.00	0.65	8.80	6.78	0.71	8.38	6.58	0.77	8.21	6.50	0.80	7.96	6.37	0.84	7.54	6.17	0.90	7.46	6.44	0.95	7.16	6.30	1.00
	60.8	9.65	6.87	0.65	9.22	6.67	0.71	8.78	6.47	0.78	8.63	6.40	0.80	8.38	6.28	0.84	7.96	6.10	0.90	7.98	6.42	0.96	7.67	6.28	1.01
	64.4	10.06	7.20	0.66	9.65	7.02	0.72	9.22	6.83	0.78	9.05	6.76	0.81	8.78	6.65	0.85	8.37	6.48	0.91	8.53	6.92	0.97	8.19	6.78	1.03
	67.0	10.26	7.58	0.66	9.84	7.41	0.72	9.41	7.23	0.78	9.25	7.17	0.81	9.00	7.06	0.85	8.59	6.90	0.91	8.93	7.05	0.98	8.58	6.91	1.04
12	57.2	10.88	7.32	0.66	10.47	7.17	0.73	10.04	7.01	0.79	9.87	6.95	0.81	9.61	6.86	0.85	9.22	6.72	0.91	9.71	7.35	1.00	9.33	7.21	1.05
	60.8	11.29	7.14	0.67	10.88	7.00	0.73	10.47	6.86	0.79	10.29	6.80	0.82	10.04	6.71	0.85	9.62	6.58	0.92	10.35	7.29	1.01	9.65	7.06	1.01
	64.4	12.30	9.15	0.94	11.73	8.86	1.04	11.17	8.57	1.13	10.95	8.46	1.16	10.62	8.30	1.22	10.05	8.02	1.31	9.76	8.32	1.34	8.11	7.49	1.19
	67.0	12.86	8.98	0.95	12.29	8.70	1.04	11.71	8.43	1.14	11.51	8.34	1.17	11.17	8.18	1.22	10.62	7.93	1.32	10.43	8.32	1.36	8.66	7.50	1.21
	71.6	13.41	9.37	0.96	12.86	9.13	1.05	12.29	8.88	1.14	12.07	8.78	1.18	11.71	8.63	1.24	11.16	8.39	1.32	11.12	8.93	1.39	9.24	8.11	1.23
07+07	57.2	13.67	9.85	0.96	13.12	9.62	1.05	12.55	9.38	1.14	12.33	9.28	1.18	12.00	9.15	1.24	11.45	8.92	1.33	11.53	9.05	1.39	9.33	8.14	1.16
	60.8	14.51	9.50	0.97	13.95	9.29	1.06	13.38	9.08	1.15	13.16	9.00	1.19	12.82	8.87	1.25	12.29	8.68	1.34	11.79	9.15	1.25	9.58	8.32	1.07
	64.4	15.06	9.25	0.98	14.51	9.06	1.07	13.95	8.87	1.16	13.72	8.79	1.20	13.38	8.68	1.25	12.82	8.49	1.34	11.83	8.84	1.13	9.73	8.12	1.00
	67.0	14.34	9.21	0.97	13.68	10.89	1.06	13.02	10.58	1.15	12.77	10.46	1.19	12.38	10.28	1.25	11.70	10.30	1.29	12.43	11.30	1.54	9.20	9.20	1.08
	71.6	14.99	11.01	0.97	14.33	10.71	1.07	13.66	10.41	1.16	13.42	10.31	1.20	13.02	10.13	1.25	12.49	10.27	1.32	12.85	11.08	1.49	9.19	9.19	1.01
07+09	57.2	15.94	12.28	0.98	15.30	12.02	1.08	14.64	11.76	1.17	14.38	11.66	1.20	14.00	11.51	1.26	13.52	11.14	1.29	12.99	11.72	1.29	9.39	9.39	0.88
	60.8	16.91	11.87	0.99	16.27	11.65	1.09	15.61	11.41	1.18	15.35	11.32	1.21	14.95	11.19	1.27	13.90	11.36	1.19	13.17	11.97	1.17	9.59	9.59	0.81
	64.4	17.52	11.59	1.00	16.91	11.38	1.09	16.27	11.18	1.19	15.99	11.09	1.23	15.61	10.96	1.28	13.99	11.01	1.09	13.35	11.66	1.09	9.86	9.86	0.78
	67.0	16.39	12.33	1.27	15.63	11.98	1.39	14.88	11.64	1.51	14.59	11.50	1.56	14.15	11.30	1.64	13.37	11.33	1.69	12.53	11.67	1.55	9.49	9.49	1.11
	71.6	17.14	12.11	1.28	16.38	11.78	1.40	15.61	11.45	1.53	15.34	11.34	1.58	14.88	11.15	1.64	14.27	11.29	1.73	12.97	11.44	1.49	9.50	9.50	1.04
09+09	57.2	17.87	12.75	1.29	17.14	12.46	1.41	16.38	12.16	1.53	16.09	12.05	1.58	15.61	11.86	1.66	15.20	12.18	1.77	13.19	12.16	1.40	9.71	9.71	0.97
	60.8	18.22	13.50	1.29	17.49	13.22	1.41	16.73	12.93	1.53	16.44	12.82	1.58	16.00	12.65	1.66	15.45	12.25	1.70	13.28	12.22	1.33	9.74	9.74	0.91
	64.4	18.33	13.06	1.30	18.60	12.81	1.42	17.84	12.55	1.54	17.54	12.46	1.59	17.09	12.30	1.67	15.88	12.49	1.56	13.47	12.49	1.20	9.95	9.95	0.84
	67.0	20.07	12.75	1.31	19.33	12.52	1.43	18.60	12.29	1.56	18.28	12.19	1.61	17.84	12.06	1.67	15.99	12.11	1.43	13.69	12.19	1.12	10.01	10.01	0.78
	71.6	18.21	13.51	1.31	17.40	13.15	1.43	16.58	12.78	1.57	16.30	12.65	1.62	15.81	12.44	1.69	15.16	12.60	1.78	12.86	11.57	1.46	9.74	9.74	1.07
07+12	57.2	18.99	14.24	1.32	18.21	13.91	1.45	17.40	13.57	1.57	17.09	13.44	1.62	16.58	13.24	1.70	16.15	13.60	1.82	13.07	12.32	1.37	9.98	9.98	1.00
	60.8	19.36	15.07	1.32	18.58	14.76	1.45	17.77	14.43	1.57	17.46	14.31	1.62	17.00	14.12	1.70	16.42	13.67	1.74	13.15	12.39	1.30	10.02	10.02	0.94
	64.4	20.54	14.58	1.33	19.76	14.30	1.46	18.95	14.01	1.58	18.64	13.90	1.63	18.16	13.73	1.71	16.88	13.94	1.60	13.52	12.75	1.20	10.25	10.25	0.86
	67.0	21.32	14.23	1.34	20.54	13.97	1.47	19.76	13.72	1.60	19.42	13.61	1.65	18.95	13.46	1.72	16.99	13.51	1.46	13.73	12.44	1.12	10.32	10.32	0.81
	71.6	18.21	13.51	1.31	17.40	13.15	1.43	16.58	12.78	1.57	16.30	12.65	1.62	15.81	12.44	1.69	15.16	12.60	1.78	12.86	11.57	1.46	9.74	9.74	1.07
09+12	57.2	17.41	13.76	1.30	16.61	13.37	1.43	15.81	12.99	1.55	15.50	12.84	1.60	15.03	12.62	1.69	14.21	12.64	1.74	12.60	11.87	1.55	9.56	9.56	1.11
	60.8	18.21	13.51	1.31	17.40	13.15	1.43	16.58	12.78	1.57	16.30	12.65	1.62	15.81	12.44	1.69	15.16	12.60	1.78	12.86	11.57	1.46	9.74	9.74	1.07
	64.4	18.99	14.24	1.32	18.21	13.91	1.45	17.40	13.57	1.57	17.09	13.44	1.62	16.58	13.24	1.70	16.15	13.60	1.82	13.07	12.32	1.37	9.98	9.98	1.00
	67.0	19.36	15.07	1.32	18.58	14.76	1.45	17.77	14.43	1.57	17.46	14.31	1.62	17.00	14.12	1.70	16.42	13.67	1.74	13.15	12.39	1.30	10.02	10.02	0.94
	71.6	20.54	14.58	1.33	19.76	14.30	1.46	18.95	14.01	1.58	18.64	13.90	1.63	18.16	13.73	1.71	16.88	13.94	1.60	13.52	12.75	1.20	10.25	10.25	0.86
12+12	57.2	21.32	14.23	1.34	20.54	13.97	1.47	19.76	13.72	1.60	19.42	13.61	1.65	18.95	13.46	1.72	16.99	13.51	1.46	13.73	12.44	1.12	10.32	10.32	0.81
	60.8	18.21	13.51	1.31	17.40	13.15	1.43	16.58	12.78	1.57	16.30	12.65	1.62	15.81	12.44	1.69	15.16	12.60	1.78	12.86	11.57	1.46	9.74	9.74	1.07
	64.4	18.99	14.24	1.32	18.21	13.91	1.45	17.40	13.57	1.57	17.09	13.44	1.62	16.58	13.24	1.70	16.15	13.60	1.82	13.07	12.32	1.37	9.98	9.98	1.00
	67.0	19.36	15.07	1.32	18.58	14.76	1.45	17.77	14.43	1.57	17.46	14.31	1.62	17.00	14.12	1.70	16.42	13.67	1.74	13.15	12.39	1.30	10.02	10.02	0.94
	71.6	20.54	14.58	1.33	19.76	14.30	1.46	18.95	14.01	1.58	18.64	13.90	1.63	18.16	13.73	1.71	16.88	13.94	1.60	13.52	12.75	1.20	10.25	10.25	0.86

NOTE:

- RATINGS SHOWN ARE NET CAPACITIES WHICH INCLUDE A DEDUCTION FOR INDOOR FAN MOTOR HEAT
- SHOWN CAPACITIES AND POWER INPUT
- TC, SHC AND PI MUST BE CALCULATED BY INTERPOLATION USING THE FIGURES IN THE ABOVE TABLES. (FIGURES OUT OF THE TABLES SHOULD NOT BE USED FOR CALCULATION.)
- CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS.
- CORRESPONDING REFRIGERANT PIPING LENGTH : 25FT

<SYMBOLS>

- DB : DRY BULB TEMPERATURE (° F)
- WB : WET BULB TEMPERATURE (° F)
- TC : TOTAL CAPACITY (kBtu/h)
- SHC : SENSIBLE HEATING CAPACITY (kBtu/h)
- PI : POWER INPUT (kW)



# Heating

## Model : CTX07/09/12A

Combination (Capacity)	Indoor Temperature [°F DB]	Outdoor temperature [°F WB]													
		5.0		14.0		23.0		32.0		43.0		50.0		59.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
07	59.0	3.32	0.40	4.01	0.43	4.68	0.45	5.36	0.59	7.24	0.62	7.88	0.64	9.88	0.62
	70.0	3.14	0.42	3.80	0.44	4.48	0.46	5.15	0.60	7.00	0.63	7.64	0.65	9.51	0.69
	71.6	3.04	0.42	3.72	0.44	4.39	0.46	5.07	0.60	6.90	0.64	7.54	0.66	9.36	0.72
	75.2	2.96	0.42	3.64	0.45	4.31	0.47	4.98	0.61	6.81	0.64	7.44	0.66	9.21	0.74
	77.0	2.92	0.43	3.59	0.45	4.27	0.47	4.95	0.62	6.76	0.64	7.39	0.67	9.13	0.76
80.6	2.84	0.43	3.51	0.46	4.18	0.48	4.86	0.62	6.66	0.65	7.30	0.67	8.97	0.79	
09	59.0	4.27	0.48	5.15	0.51	6.02	0.53	6.89	0.70	9.31	0.74	10.13	0.76	12.71	0.74
	70.0	4.03	0.50	4.89	0.52	5.76	0.54	6.63	0.72	9.00	0.75	9.82	0.78	12.23	0.82
	71.6	3.91	0.50	4.78	0.53	5.65	0.55	6.52	0.72	8.87	0.76	9.69	0.79	12.04	0.85
	75.2	3.81	0.51	4.68	0.53	5.54	0.56	6.40	0.73	8.75	0.76	9.57	0.79	11.85	0.89
	77.0	3.75	0.51	4.61	0.53	5.50	0.56	6.37	0.73	8.69	0.77	9.50	0.80	11.74	0.90
80.6	3.65	0.51	4.52	0.54	5.38	0.57	6.25	0.74	8.56	0.78	9.38	0.80	11.54	0.94	
12	59.0	5.70	0.73	6.87	0.76	8.02	0.81	9.19	1.05	12.41	1.11	13.50	1.15	16.61	1.16
	70.0	5.38	0.75	6.51	0.78	7.67	0.82	8.84	1.08	12.00	1.13	13.09	1.17	16.04	1.26
	71.6	5.22	0.76	6.38	0.80	7.53	0.83	8.69	1.09	11.83	1.14	12.92	1.18	15.83	1.30
	75.2	5.08	0.76	6.24	0.81	7.38	0.84	8.53	1.10	11.67	1.15	12.76	1.19	15.59	1.34
	77.0	5.01	0.77	6.15	0.81	7.33	0.85	8.49	1.11	11.59	1.16	12.66	1.20	15.49	1.37
80.6	4.87	0.77	6.02	0.82	7.17	0.85	8.33	1.11	11.42	1.17	12.51	1.21	15.27	1.41	
07+07	59.0	6.65	0.73	8.01	0.77	9.36	0.81	10.72	1.06	14.48	1.12	15.75	1.16	19.31	1.12
	70.0	6.27	0.76	7.60	0.79	8.95	0.83	10.31	1.09	14.00	1.14	15.27	1.18	18.81	1.22
	71.6	6.09	0.77	7.44	0.80	8.79	0.84	10.13	1.10	13.80	1.15	15.08	1.19	18.60	1.26
	75.2	5.92	0.77	7.28	0.81	8.61	0.85	9.96	1.11	13.61	1.16	14.88	1.20	18.38	1.30
	77.0	5.84	0.78	7.17	0.81	8.55	0.85	9.90	1.12	13.52	1.17	14.77	1.21	18.28	1.32
80.6	5.68	0.78	7.03	0.83	8.36	0.86	9.72	1.12	13.32	1.18	14.59	1.22	18.06	1.37	
07+09	59.0	7.60	0.89	9.16	0.94	10.69	0.99	12.26	1.29	16.55	1.36	18.00	1.40	22.07	1.36
	70.0	7.17	0.92	8.68	0.96	10.23	1.01	11.78	1.32	16.00	1.39	17.45	1.43	21.50	1.48
	71.6	6.96	0.93	8.51	0.97	10.04	1.02	11.58	1.33	15.77	1.40	17.23	1.45	21.25	1.53
	75.2	6.77	0.93	8.32	0.99	9.84	1.03	11.38	1.35	15.56	1.41	17.01	1.46	21.00	1.58
	77.0	6.67	0.94	8.20	0.99	9.77	1.04	11.32	1.36	15.45	1.42	16.88	1.47	20.89	1.61
80.6	6.49	0.95	8.03	1.00	9.56	1.05	11.11	1.36	15.22	1.43	16.67	1.48	20.64	1.66	
09+09	59.0	8.07	0.91	9.73	0.96	11.36	1.01	13.02	1.32	17.58	1.39	19.12	1.44	23.45	1.39
	70.0	7.62	0.94	9.23	0.98	10.87	1.03	12.52	1.36	17.00	1.42	18.54	1.47	22.84	1.52
	71.6	7.39	0.95	9.04	1.00	10.67	1.05	12.30	1.36	16.75	1.43	18.31	1.48	22.58	1.57
	75.2	7.19	0.96	8.84	1.01	10.46	1.06	12.09	1.38	16.53	1.44	18.07	1.50	22.32	1.62
	77.0	7.09	0.97	8.71	1.01	10.38	1.06	12.02	1.39	16.42	1.45	17.94	1.50	22.20	1.65
80.6	6.90	0.97	8.53	1.03	10.15	1.07	11.80	1.39	16.17	1.47	17.72	1.51	21.93	1.70	
07+12	59.0	8.07	0.91	9.73	0.96	11.36	1.01	13.02	1.32	17.58	1.39	19.12	1.44	23.45	1.39
	70.0	7.62	0.94	9.23	0.98	10.87	1.03	12.52	1.36	17.00	1.42	18.54	1.47	22.84	1.52
	71.6	7.39	0.95	9.04	1.00	10.67	1.05	12.30	1.36	16.75	1.43	18.31	1.48	22.58	1.57
	75.2	7.19	0.96	8.84	1.01	10.46	1.06	12.09	1.38	16.53	1.44	18.07	1.50	22.32	1.62
	77.0	7.09	0.97	8.71	1.01	10.38	1.06	12.02	1.39	16.42	1.45	17.94	1.50	22.20	1.65
80.6	6.90	0.97	8.53	1.03	10.15	1.07	11.80	1.39	16.17	1.47	17.72	1.51	21.93	1.70	
09+12	59.0	8.07	0.91	9.73	0.96	11.36	1.01	13.02	1.32	17.58	1.39	19.12	1.44	23.45	1.39
	70.0	7.62	0.94	9.23	0.98	10.87	1.03	12.52	1.36	17.00	1.42	18.54	1.47	22.84	1.52
	71.6	7.39	0.95	9.04	1.00	10.67	1.05	12.30	1.36	16.75	1.43	18.31	1.48	22.58	1.57
	75.2	7.19	0.96	8.84	1.01	10.46	1.06	12.09	1.38	16.53	1.44	18.07	1.50	22.32	1.62
	77.0	7.09	0.97	8.71	1.01	10.38	1.06	12.02	1.39	16.42	1.45	17.94	1.50	22.20	1.65
80.6	6.90	0.97	8.53	1.03	10.15	1.07	11.80	1.39	16.17	1.47	17.72	1.51	21.93	1.70	
12+12	59.0	8.07	0.91	9.73	0.96	11.36	1.01	13.02	1.32	17.58	1.39	19.12	1.44	23.45	1.39
	70.0	7.62	0.94	9.23	0.98	10.87	1.03	12.52	1.36	17.00	1.42	18.54	1.47	22.84	1.52
	71.6	7.39	0.95	9.04	1.00	10.67	1.05	12.30	1.36	16.75	1.43	18.31	1.48	22.58	1.57
	75.2	7.19	0.96	8.84	1.01	10.46	1.06	12.09	1.38	16.53	1.44	18.07	1.50	22.32	1.62
	77.0	7.09	0.97	8.71	1.01	10.38	1.06	12.02	1.39	16.42	1.45	17.94	1.50	22.20	1.65
80.6	6.90	0.97	8.53	1.03	10.15	1.07	11.80	1.39	16.17	1.47	17.72	1.51	21.93	1.70	

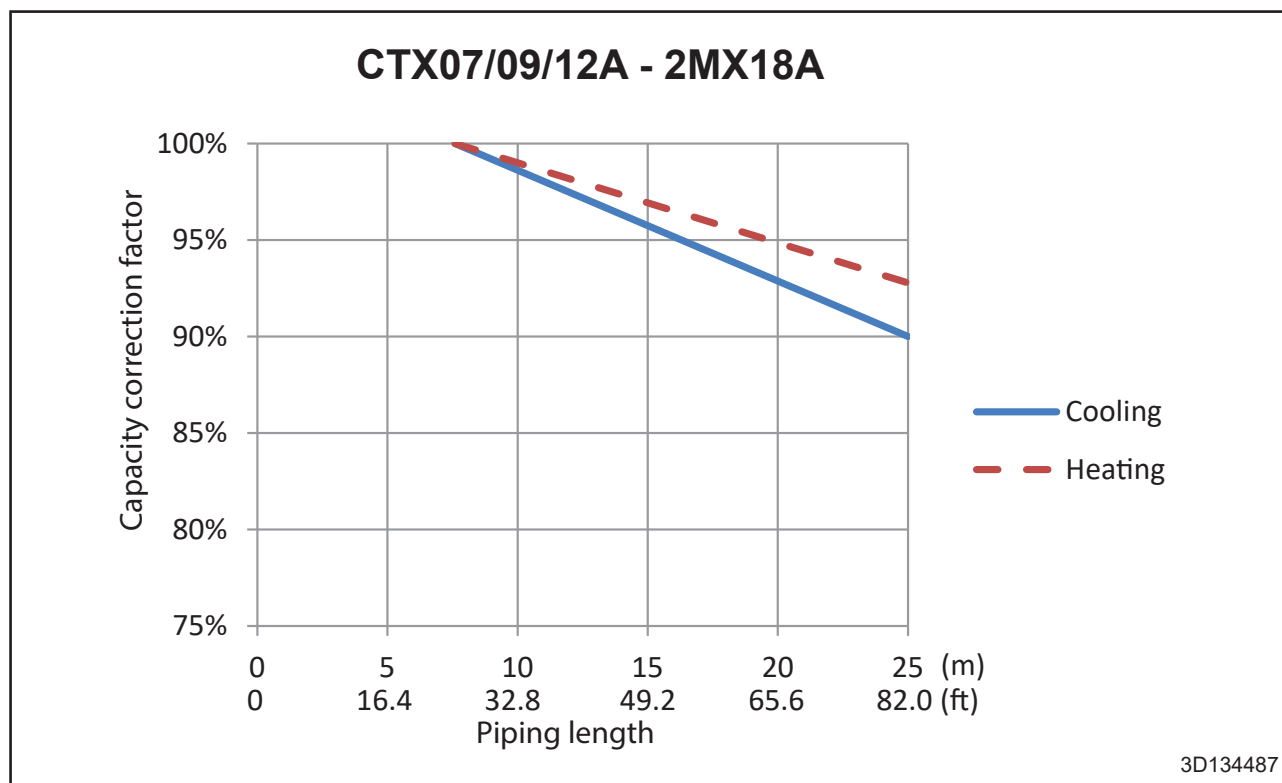
NOTE:

- RATINGS SHOWN ARE NET CAPACITIES WHICH INCLUDE A DEDUCTION FOR INDOOR FAN MOTOR HEAT
- Shows MAX CAPACITIES AND POWER INPUT
- TC, SHC AND PI MUST BE CALCULATED BY INTERPOLATION USING THE FIGURES IN THE ABOVE TABLES. (FIGURES OUT OF THE TABLES SHOULD NOT BE USED FOR CALCULATION.)
- CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS.
- CORRESPONDING REFRIGERANT PIPING LENGTH : 25FT

<SYMBOLS>

- DB : DRY BULB TEMPERATURE (° F)
- WB : WET BULB TEMPERATURE (° F)
- TC : TOTAL CAPACITY (kBtu/h)
- SHC : SENSIBLE HEATING CAPACITY (kBtu/h)
- PI : POWER INPUT (kW)

## Capacity correction factor by the length of refrigerant piping

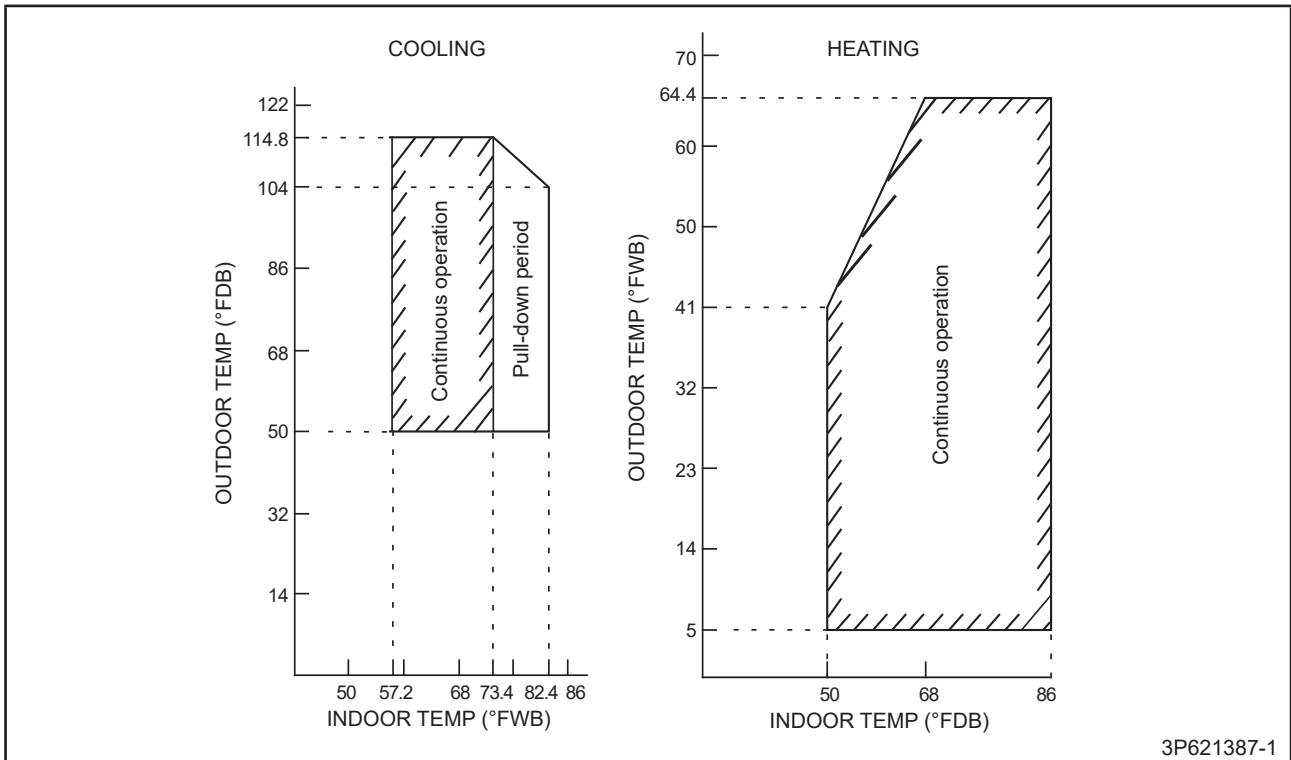
**Notes:**

- 1.----- represents the capacity correction factor for the capacity when additional refrigerant of the proper quantity is charged.
- 2.The correction ratio remains the same whether the outdoor unit is to be installed above or below the unit.
- 3.Calculation method for capacity  
Capacity = capacity obtained from engineering data x capacity correction factor
- 4.The actual unit piping length shall not exceed the maximum piping length shown on the table.

# Operation Limit

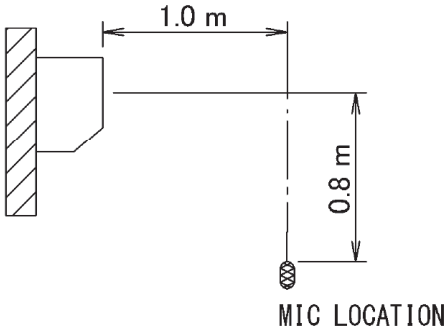
## Heatpump

Model : 2MX-A



# Sound Level

## Measuring Location

Model	Measuring Location
CTX07A CTX09A CTX12A	 <p>The diagram illustrates the microphone placement for sound level measurement. A device is shown on the left, with a microphone positioned to its right. The horizontal distance between the device and the microphone is 1.0 m. The vertical distance from the horizontal line to the microphone is 0.8 m. The microphone is labeled "MIC LOCATION".</p>

**Notes:**

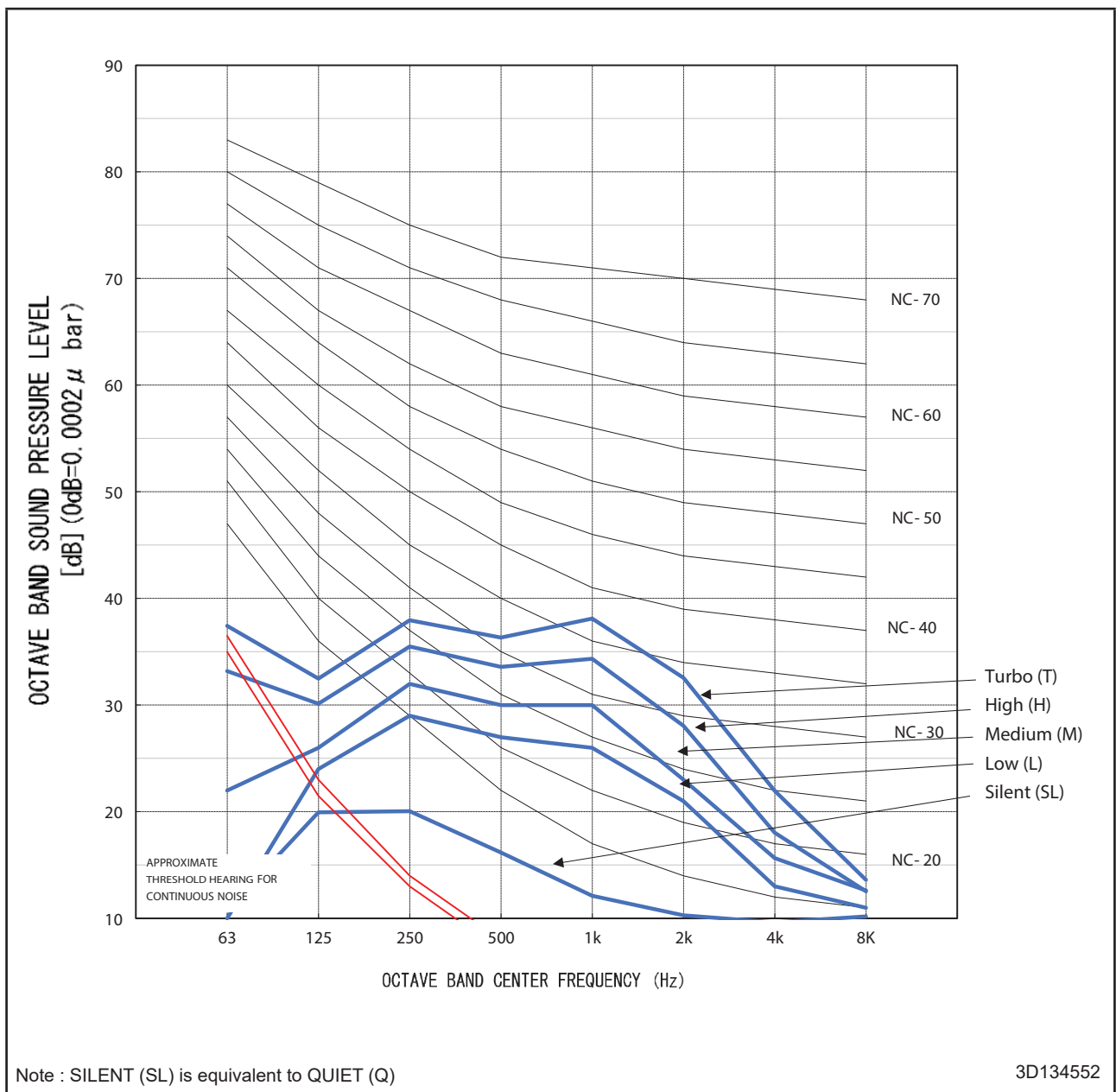
1. Operation sound is measured in an anechoic chamber.
2. The operation noise measuring method is in accordance with **JISC9612**.

# Heatpump

## Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20µPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX07A (Cooling)	High	33	30	36	34	34	28	18	13	37	33
	Med	24	28	33	32	31	25	16	13	33	30
	Low	11	26	31	30	28	22	15	13	30	26
	Quiet	11	20	20	16	12	10	10	10	19	N/A

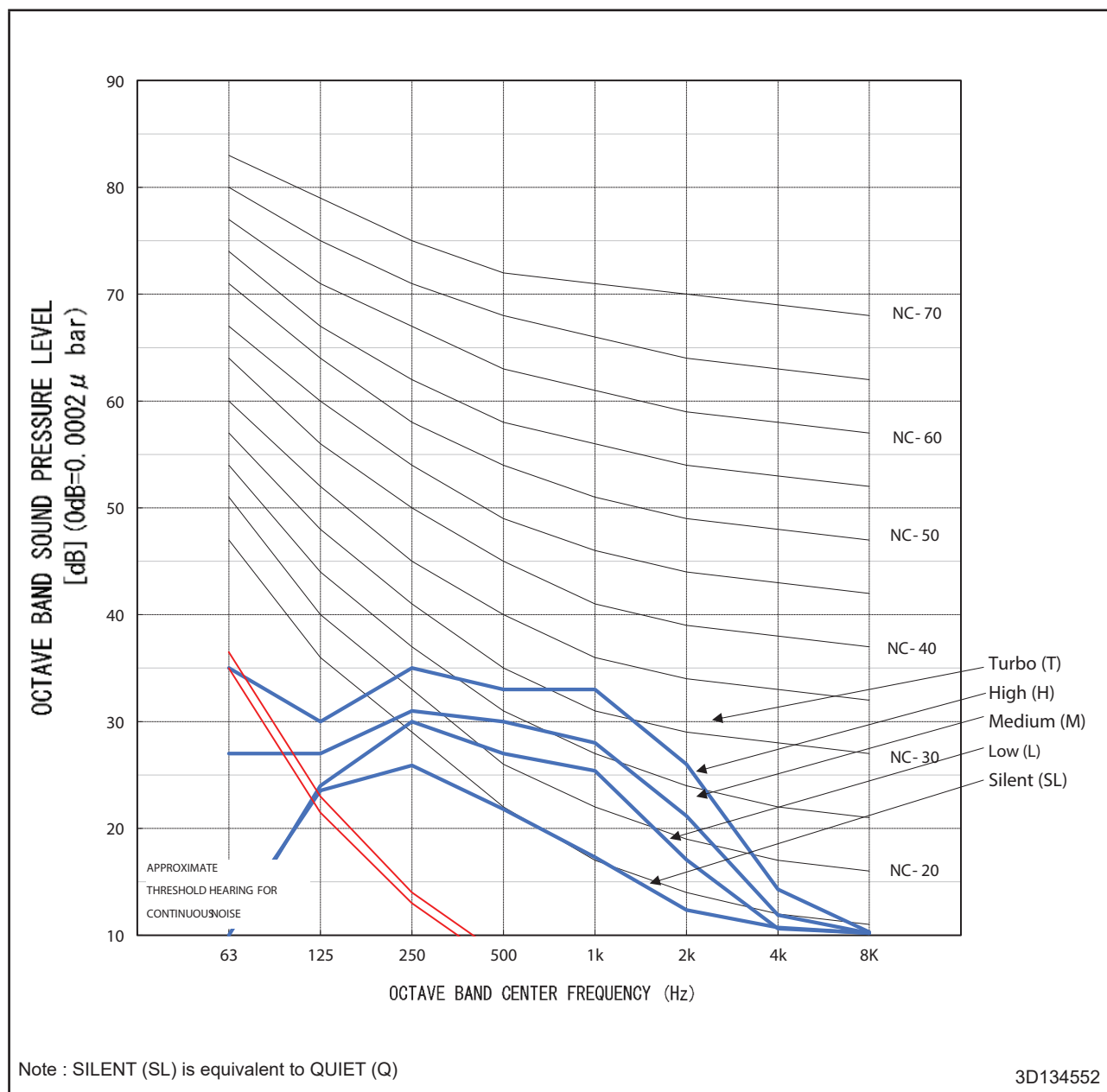
## NC Curve



### Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX07A (Heating)	High	35	30	35	33	33	26	14	10	36	32
	Med	27	27	31	30	28	21	12	10	32	26
	Low	10	24	30	27	25	17	11	10	29	23
	Quiet	11	24	26	22	17	12	11	10	24	15

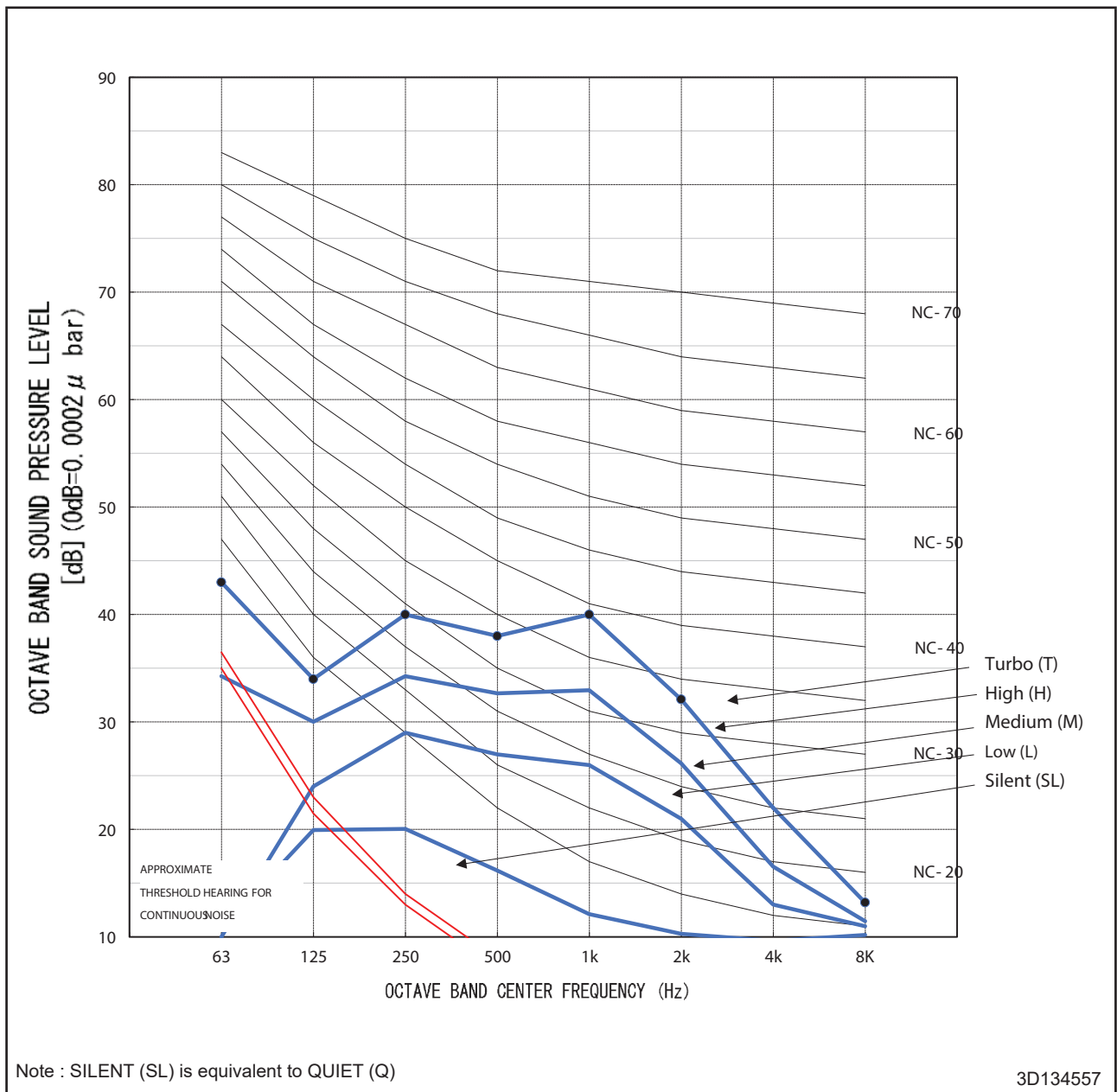
### NC Curve



### Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX09A (Cooling)	High	43	34	40	38	40	32	22	13	42	39
	Med	34	30	34	33	33	26	17	11	36	32
	Low	10	24	29	27	26	21	13	11	30	24
	Quiet	11	20	20	16	12	10	10	10	19	N/A

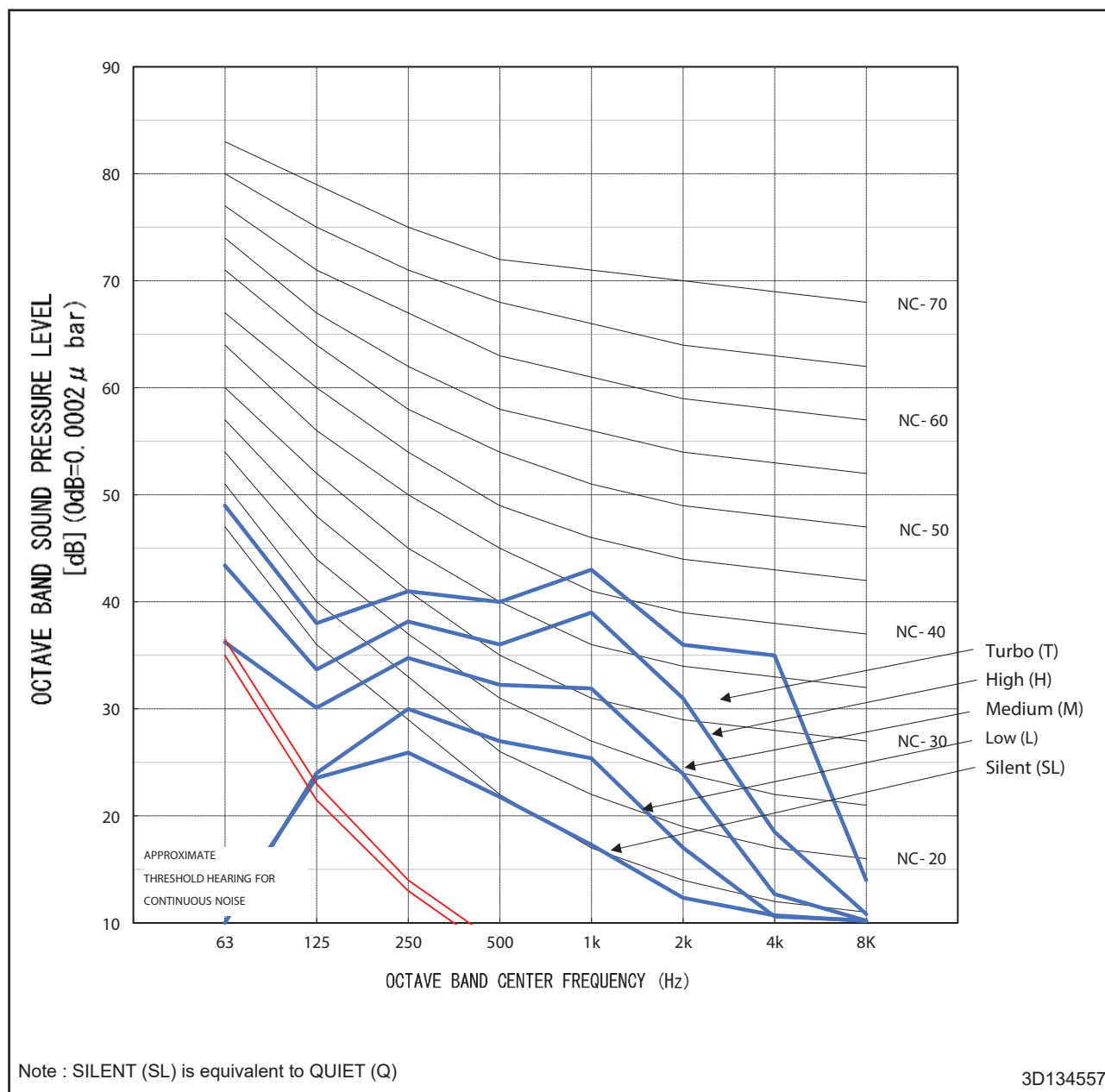
### NC Curve



### Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX09A (Heating)	High	43	34	38	36	38	30	19	11	41	37
	Med	36	30	35	32	32	24	13	10	35	31
	Low	25	25	31	28	25	17	11	10	29	23
	Quiet	11	22	26	22	18	11	9	10	24	16

### NC Curve

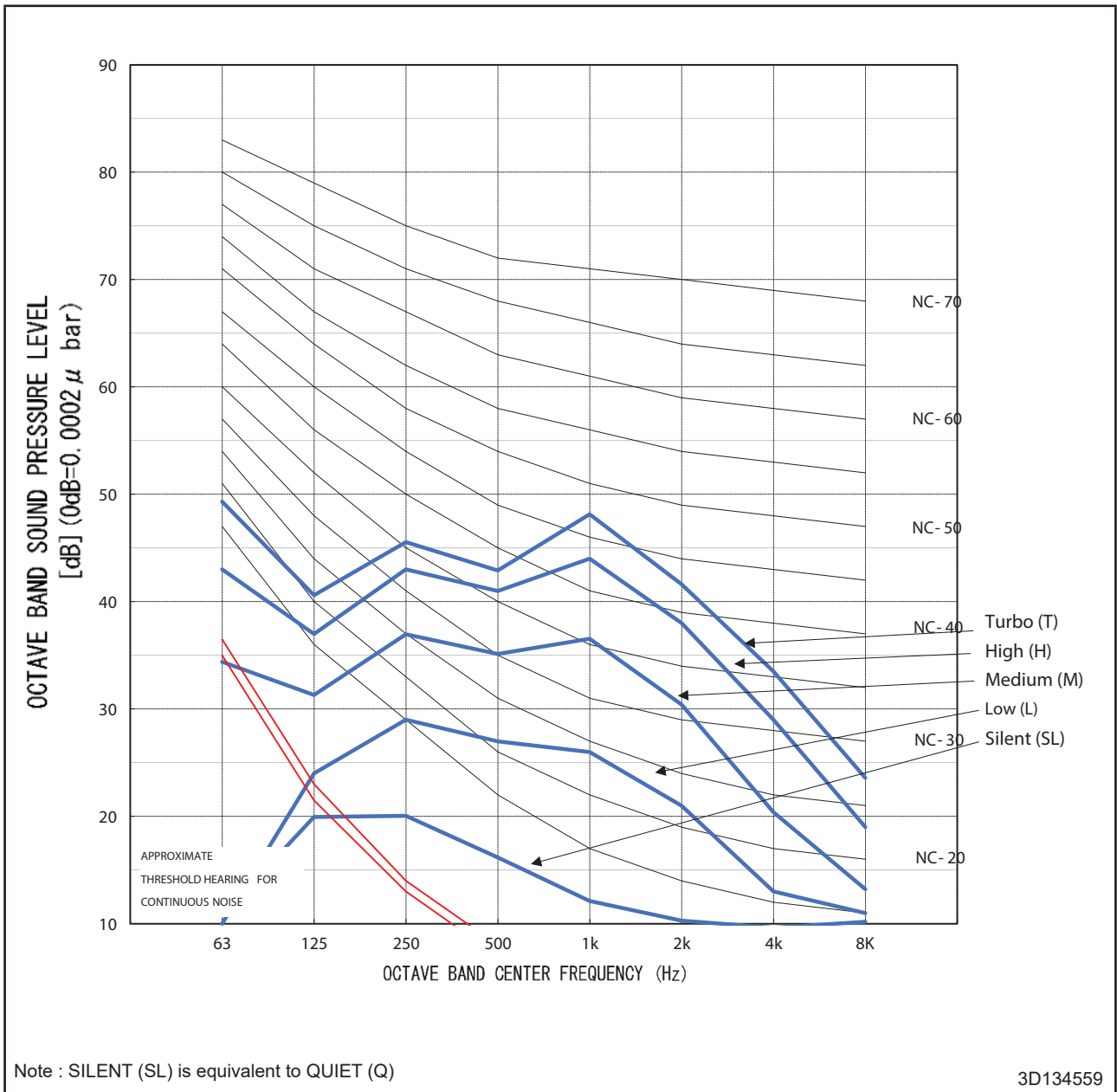




### Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX12A (Cooling)	High	43	37	43	41	44	38	29	19	46	43
	Med	34	31	37	35	37	30	20	13	39	36
	Low	10	24	29	27	26	21	13	11	30	24
	Quiet	11	20	20	16	12	10	10	10	19	N/A

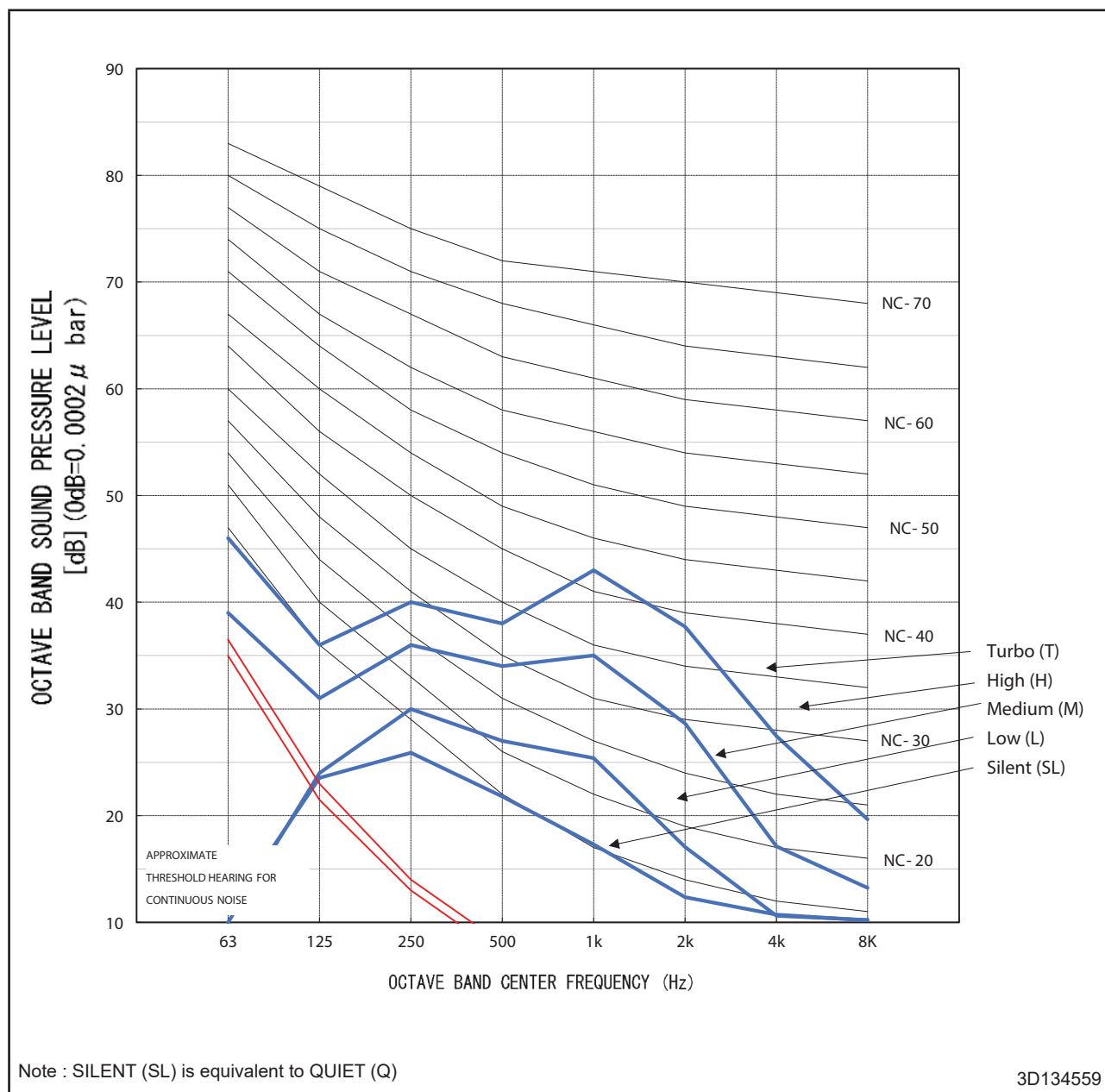
### NC Curve



### Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
CTX12A (Heating)	High	46	36	40	38	43	38	27	20	45	42
	Med	39	31	36	34	35	29	17	13	38	34
	Low	10	24	30	27	25	17	11	10	29	23
	Quiet	11	24	26	22	17	12	11	10	24	15

### NC Curve



# Electric Characteristic

Unit Combination		Power Supply				COMP.		OFM	
Indoor Unit	Outdoor Unit	Hz-Volts	Voltage Range	MCA	MFA	MSC	RLA	W	FLA
CTX07A CTX09A CTX12A	2MX18A	60Hz-208V	MAX. 60Hz 253V MIN. 60Hz 187V	10.90	15.0	9.50	9.50	64	0.44
		60Hz-230V							

**Symbols:**

- MCA : Min. circuit amps (A)
- MFA : Max. fuse amps (A)
- MSC : Max. current during the starting of compressor (A)
- RLA : Rated loads amps (A)
- OFM : Outdoor fan motor (A)
- FLA : Full load amps (A)
- W : Fan motor rated output (W)

**Notes:**

1. RLA is the max current that comes in cooling operation and heating operation.
2. Voltage Range. Units are suitable for use on electrical system where voltage supplied to unit terminal is not below or above listed range limits.
3. Maximum allowable voltage that is variation between phases is 2%.
4. MCA represents MAX. input current  
MFA represents capacity which may accept MCA.
5. Select wire size based on the larger value of MCA.
6. MFA is used to select the circuit breaker and the ground fault circuit interrupter. (Earth leakage circuit breaker).

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# Accessories List

	Optional Accessories	Model Number
<b>Indoor Unit</b>	Wired Controller	BRC51D61
	Wireless Interface Adapter	BRP072A43
<b>Outdoor Unit</b>	Air Directional Change Grille	KPW937F4
	Drain Pan Heater	FTDBHMS, KEH067A41E
	Outdoor Unit Protection Net Grille	KKG067A41

