

ENGINEERING DATA

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

FTXNG-A Series



R410A

ED5WM16R-NA23V2

Supersede : ED5WM16R-NA23V1

Table of Contents

Introduction.....	1
Model Name and Power Supply	1
Nomenclature	2
Functions	3
Specifications	4
Dimensions	7
Wiring Diagrams	9
Piping Diagrams	11
Capacity Tables	14
Capacity Tables	14
Capacity Correction Factor	17
Operation Limit.....	18
Sound Level	19
Measuring Location	19
Sound Pressure Level & NC Curve	20
Electric Characteristic.....	26

Introduction

Model Name and Power Supply

Indoor Unit	Outdoor Unit	Power Supply
FTXNG09AXVJU	RXNG09AXVJU	1Phase, 208/230V, 60Hz
FTXNG12AXVJU	RXNG12AXVJU	
FTXNG18AXVJU	RXNG18AXVJU	

Nomenclature

Indoor Unit

Definition	Description
Unit Category	F : Air-Cooled Split Indoor Unit
Product Type	T : Wall Mounted
System	X : Inverter, Heatpump
Grade	N : R410A, Internet Model
Brand	G : Goodman Brand
Capacity Indication*	09 : 9,000 Btu/h
Major Design Category	A : A Series
Factory Origin	X : Malaysia
Power Supply	VJ : 208/230V / 1Phase / 60Hz
Country	U : United States

Outdoor Unit

Definition	Description
Unit Category	R : Air-Cooled Split Outdoor Unit
System	X : Inverter, Heatpump
Grade	N : R410A, Internet Model
Brand	G : Goodman Brand
Capacity Indication*	09 : 9,000 Btu/h
Major Design Category	A : A Series
Factory Origin	X : Malaysia
Power Supply	VJ : 208/230V / 1Phase / 60Hz
Country	U : United States

Remark:

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

Functions

Category	Functions	FTXNG09/12A RXNG09/12A	FTXNG18A RXNG18A
Basic Function	Inverter	●	●
	Operation Limit for Cooling (°CDB)(O/D)	10 - 46	10 - 46
	Operation Limit for Cooling (°FDB)(O/D)	50 - 114.8	50 - 114.8
	Operation Limit for Heating (°CWB)(O/D)	-15 - 18	-15 - 18
	Operation Limit for Heating (°FWB)(O/D)	5 - 64.4	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	-	-
	Anti-virus Filter / Gin-ION 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	Blue Fin	Blue Fin
Flexibility	Pre-charged Piping Length	32-13/16 ft	32-13/16 ft
	Either Side Drain (Right or Left)	●	●
Remote Control	WIFI Connectivity	●*	●*
	BAG Connectivity	●*	●*
	DIII-NET Connectivity	-	-
Remote Controller	Wireless	BRC52B67	BRC52B67
	Wired	-	-

Note: ● : Available

- : Not Available

●* : Optional (Refer to DAMA Spare Part team for more details on optional items.)

Specifications

MODEL	INDOOR UNIT		FTXNG09A RXNG09A	
	OUTDOOR UNIT		Cooling	Heating
Rated Capacity (Min. ~ Max.)	kW		2.57 (1.30 - 3.00)	2.75 (1.30 - 3.80)
	Btu/h		8800 (4400 - 10200)	9400 (4400 - 13000)
Moisture Removal	gal/h		0.09	
Rated Running Current	A		3.82	3.70
Rated Power Consumption	W		800	774
EER2	Btu/h/W		11.0	N/A
SEER2			18.0	N/A
COP	W/W		N/A	3.56
HSPF2			N/A	9.0
Power Factor (Rated)			N/A	
Piping	Liquid	inch (mm)	1/4" (6.35)	
Connections	Gas	inch (mm)	3/8" (9.52)	
Refrigerant	Type		R410A	
	Charge	lbs (kg)	1.54 (0.7)	
Max. Interunit Piping Length	ft (m)		65-5/8 (20)	
Max. Interunit Height Difference	ft (m)		32-13/16 (10)	
Chargeless	ft (m)		32-13/16 (10)	
Amount of Additional Charge of Refrigerant	oz/ft (g/m)		0.21 (20)	
Drawing No.			3D143694C	
INDOOR UNIT			FTXNG09A RXNG09A	
Front Panel Colour			WHITE	
Airflow Rate	Turbo	CFM	466	
	High	CFM	431	402
	Medium	CFM	322	
	Low	CFM	249	
	Quiet	CFM	142	219
Sound Pressure Level (H/M/L/Q)		dBA	43/36/29/19	42/35/29/25
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, QUIET, AUTO, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	22	
	Running Current (Rated)	A	0.10	
	Power Consumption (Rated)	W	29	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)	inch (mm)		11-1/3 x 30-5/16 x 9-3/16 (288 x 770 x 234)	
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)		20.3 (9.2)	
Gross Weight	lbs (kg)		24.7 (11.2)	
Condensate Drain Size	inch (mm)		5/8 (16)	
Document No.			3D143550B	
OUTDOOR UNIT			RXNG09A	
Casing Colour			IVORY WHITE	
Airflow Rate	High	CFM	1083	1103
Sound Pressure Level		dBA	46	48
Fan	Type		PROPELLER	
	Drive		DIRECT	
Fan Motor	Type		DIRECT CURRENT	
	Index of protection (IP)		24	
	Insulation Grade		E	
	Running Current (Rated)	A	0.60	
	Power Consumption (Rated)	W	32	
	Motor Output	W	26	
	Poles		8	
Compressor	Type		HERMETIC SWING	
	Model		1YC23AUXDA	
	Oil type		DAPHNE FVC50K	
	Oil amount	oz (cm ³)	12.4 (375)	
Heat Exchanger Type			FIN TUBE	
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)		55 (25)	
Gross Weight	lbs (kg)		62 (28)	
Document No.			3D143595A	

1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.

2) ALL SPECIFICATIONS ARE SUBJECT 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	INDOOR UNIT		FTXNG12A	
	OUTDOOR UNIT		RXNG12A	
			Cooling	Heating
Rated Capacity (Min. ~ Max.)	kW		3.22 (1.30 - 3.90)	3.31 (1.30 - 4.81)
	Btu/h		11000 (4400 - 13300)	11300 (4400 - 16400)
Moisture Removal	gal/h		0.18	
Rated Running Current	A		3.22	4.55
Rated Power Consumption	W		1294	1004
EER2	Btu/h/W		8.5	N/A
SEER2			18.0	N/A
COP	W/W		N/A	3.30
HSPF2			N/A	9.0
Power Factor (Rated)			N/A	
Piping	Liquid	inch (mm)	1/4" (6.35)	
Connections	Gas	inch (mm)	3/8" (9.52)	
Refrigerant	Type		R410A	
	Charge	lbs (kg)	2.09 (0.95)	
Max. Interunit Piping Length	ft (m)		65-5/8 (20)	
Max. Interunit Height Difference	ft (m)		32-13/16 (10)	
Chargeless	ft (m)		32-13/16 (10)	
Amount of Additional Charge of Refrigerant	oz/ft (g/m)		0.21 (20)	
Drawing No.			3D143694C	
INDOOR UNIT			FTXNG12A	
Front Panel Colour			WHITE	
Airflow Rate	Turbo	CFM	473	
	High	CFM	436	412
	Medium	CFM	316	
	Low	CFM	247	
	Quiet	CFM	132	210
Sound Pressure Level (H/M/L/Q)	dBA		45/37/31/19	43/36/30/26
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, QUIET, AUTO, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	22	
	Running Current (Rated)	A	0.10	
	Power Consumption (Rated)	W	29	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)	inch (mm)		11-1/3 x 30-5/16 x 9-3/16 (288 x 770 x 234)	
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)		21.4 (9.7)	
Gross Weight	lbs (kg)		25.8 (11.7)	
Condensate Drain Size	inch (mm)		5/8 (16)	
Document No.			3D143550B	
OUTDOOR UNIT			RXNG12A	
Casing Colour			IVORY WHITE	
Airflow Rate	High	CFM	1051	966
Sound Pressure Level	dBA		48	
Fan	Type		PROPELLER	
	Drive		DIRECT	
Fan Motor	Type		DIRECT CURRENT	
	Index of protection (IP)		24	
	Insulation Grade		E	
	Running Current (Rated)	A	0.61	
	Power Consumption (Rated)	W	46	
	Motor Output	W	26	
	Poles		8	
Compressor	Type		HERMETIC SWING	
	Model		1YC23AUXDA	
	Oil type		DAPHNE FVC50K	
	Oil amount	oz (cm³)	12.4 (375)	
Heat Exchanger Type			FIN TUBE	
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)		62 (28)	
Gross Weight	lbs (kg)		68 (31)	
Document No.			3D143595A	

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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	INDOOR UNIT		FTXNG18A	
	OUTDOOR UNIT		RXNG18A	
			Cooling	Heating
Rated Capacity (Min. ~ Max.)	kW		5.27 (1.96 - 5.86)	5.24 (1.70 - 6.60)
	Btu/h		18000 (6700 - 20000)	17900 (5800 - 22500)
Moisture Removal	gal/h		0.41	
Rated Running Current	A		7.53	6.98
Rated Power Consumption	W		1714	1590
EER2	Btu/h/W		10.5	N/A
SEER2			18.0	N/A
COP	W/W		N/A	3.30
HSPF2			N/A	8.5
Power Factor (Rated)			N/A	
Piping	Liquid	inch (mm)	1/4" (6.35)	
Connections	Gas	inch (mm)	1/2" (12.70)	
Refrigerant	Type		R410A	
	Charge	lbs (kg)	3.20 (1.45)	
Max. Interunit Piping Length	ft (m)		98-1/2 (30)	
Max. Interunit Height Difference	ft (m)		32-13/16 (10)	
Chargeless	ft (m)		32-13/16 (10)	
Amount of Additional Charge of Refrigerant	oz/ft (g/m)		0.21 (20)	
Drawing No.			3D143694C	
INDOOR UNIT			FTXNG18A	
Front Panel Colour			WHITE	
Airflow Rate	Turbo	CFM	754	
	High	CFM	716	
	Medium	CFM	605	
	Low	CFM	467	
	Quiet	CFM	395	
Sound Pressure Level (H/M/L/Q)	dB(A)		48/43/37/33	46/41/36/33
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, QUIET, AUTO, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	39	
	Running Current (Rated)	A	0.17	
	Power Consumption (Rated)	W	54	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)	inch (mm)		11-11/16 x 39-9/16 x 10-3/4 (297 x 990 x 273)	
Packaged Dimensions (H x W x D)	inch (mm)		14-1/4 x 42-1/4 x 14-1/8 (362 x 1073 x 358)	
Weight	lbs (kg)		31 (14)	
Gross Weight	lbs (kg)		36 (16.5)	
Condensate Drain Size	inch (mm)		5/8 (16)	
Document No.			3D143550B	
OUTDOOR UNIT			RXNG18A	
Casing Colour			IVORY WHITE	
Airflow Rate	High	CFM	1987	1952
Sound Pressure Level	dB(A)		53	
Fan	Type		PROPELLER	
	Drive		DIRECT	
Fan Motor	Type		DIRECT CURRENT	
	Index of protection (IP)		23	
	Insulation Grade		E	
	Running Current (Rated)	A	1.30	
	Power Consumption (Rated)	W	85	
	Motor Output	W	55	
Compressor	Poles		8	
	Type		HERMETIC SWING	
	Model		2Y147AKCX2A	
	Oil type		DAPHNE FVC50K	
	Oil amount	oz (cm³)	21.5 (650)	
Heat Exchanger Type			FIN TUBE	
Dimensions (H x W x D)	inch (mm)		27-13/32 x 36-5/8 x 13-13/16 (696 x 930 x 351)	
Packaged Dimensions (H x W x D)	inch (mm)		29-7/8 x 42-3/8 x 18-7/8 (760 x 1075 x 480)	
Weight	lbs (kg)		97 (44)	
Gross Weight	lbs (kg)		106 (48)	
Document No.			3D143595A	

1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.

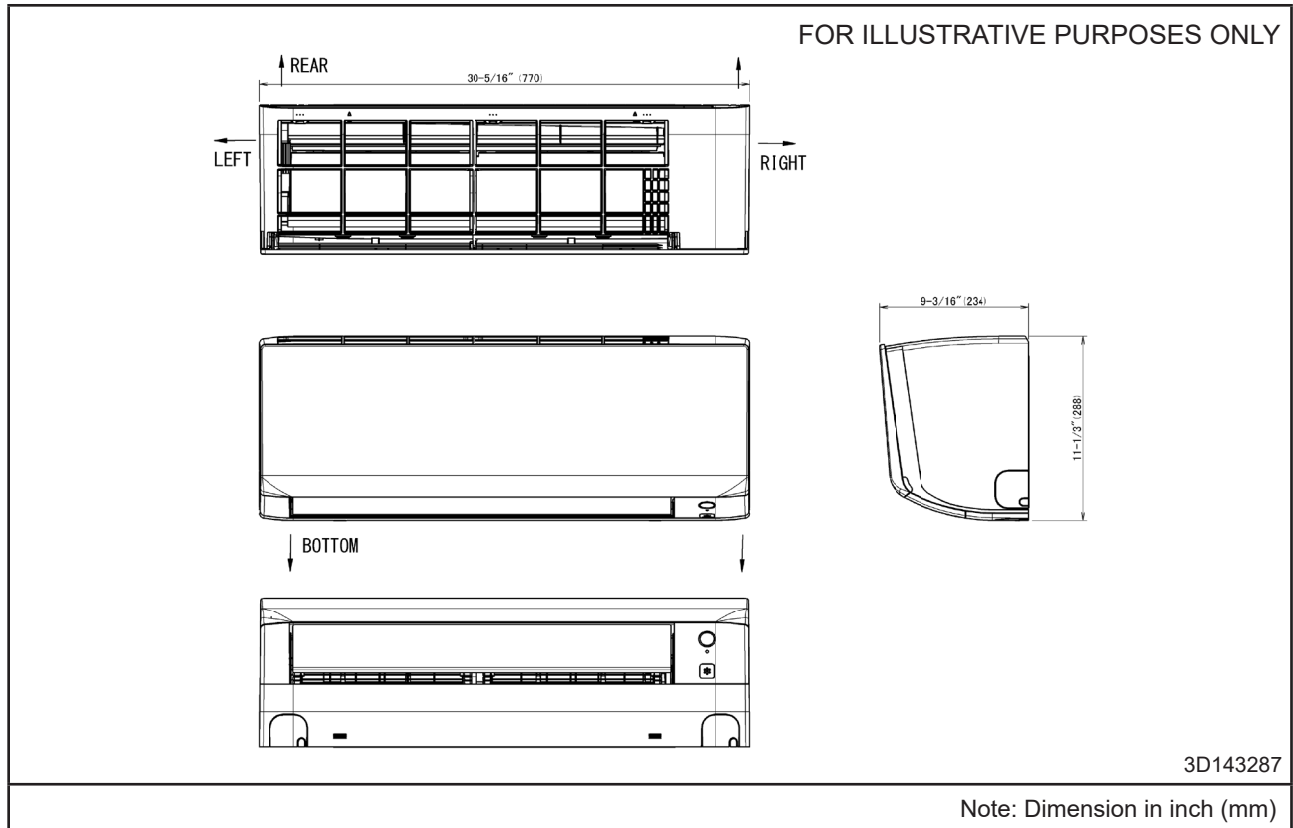
2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

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)	

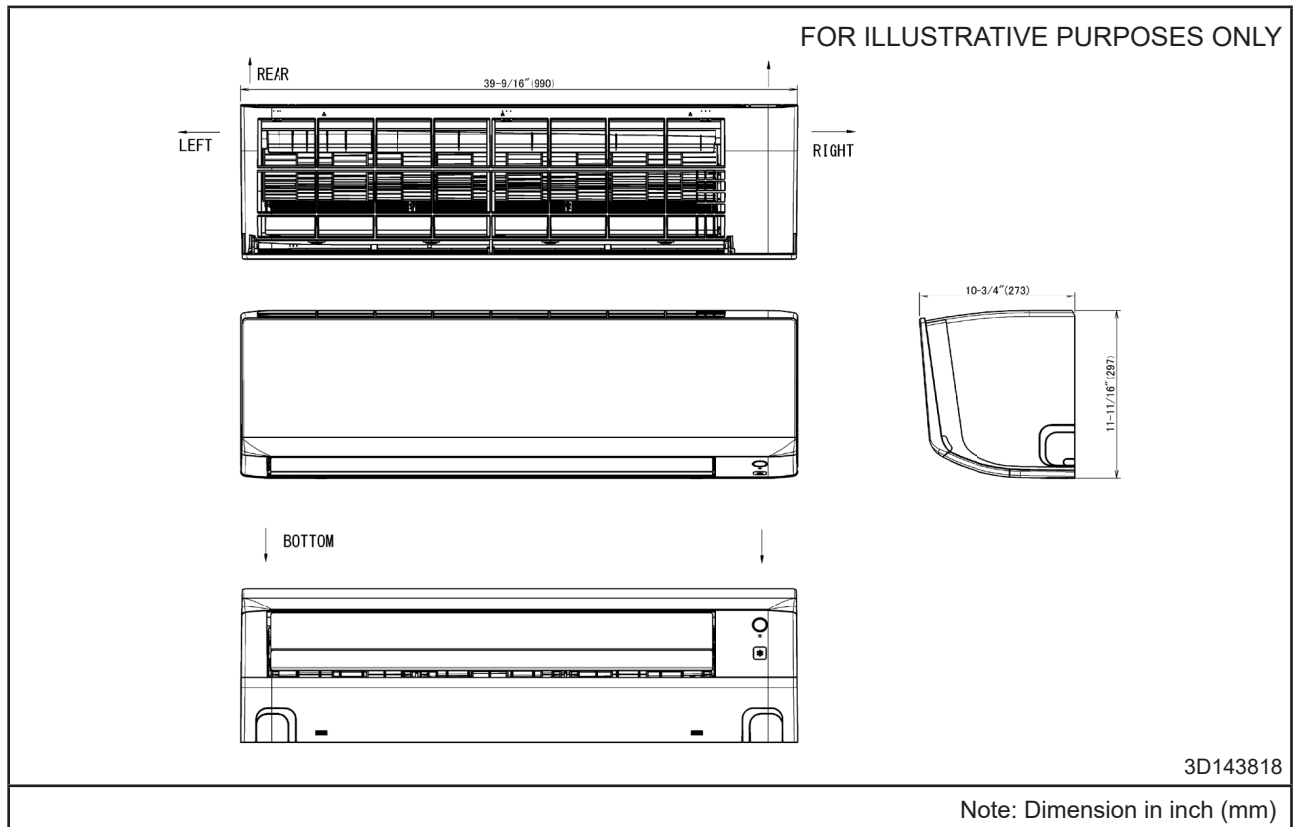
Dimensions

Indoor Unit

Model : FTXNG09/12A

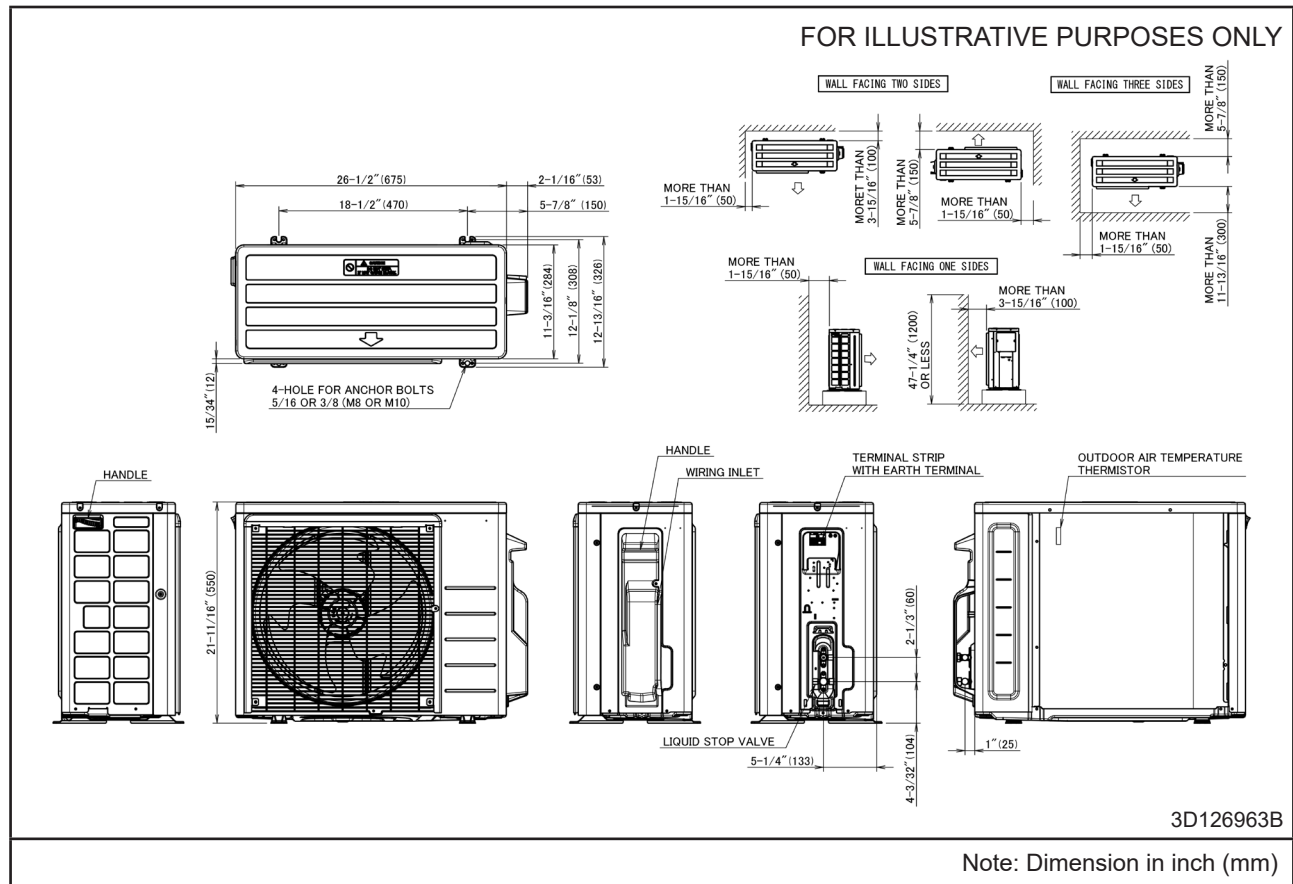


Model : FTXNG18A

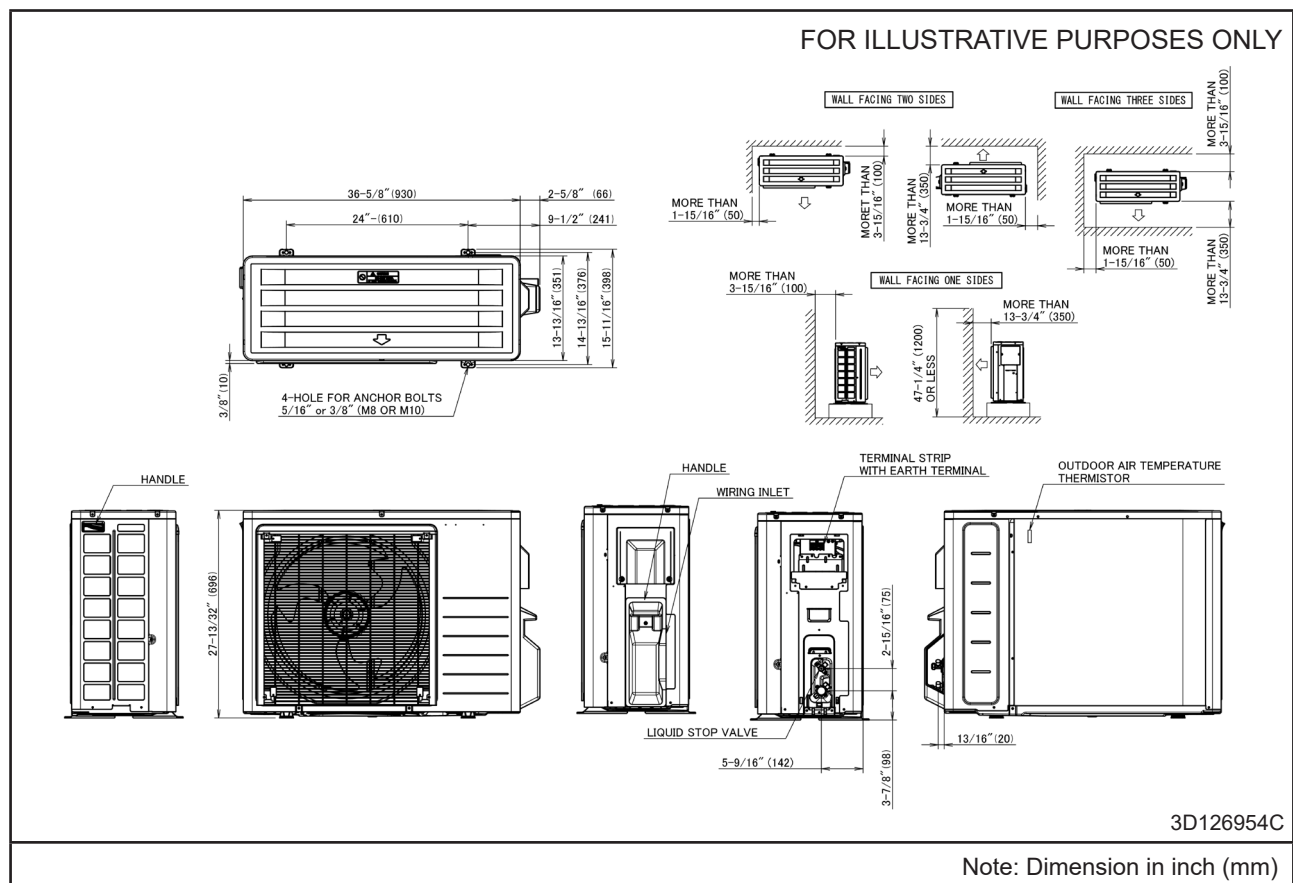


Outdoor Unit

Model : RXNG09/12A

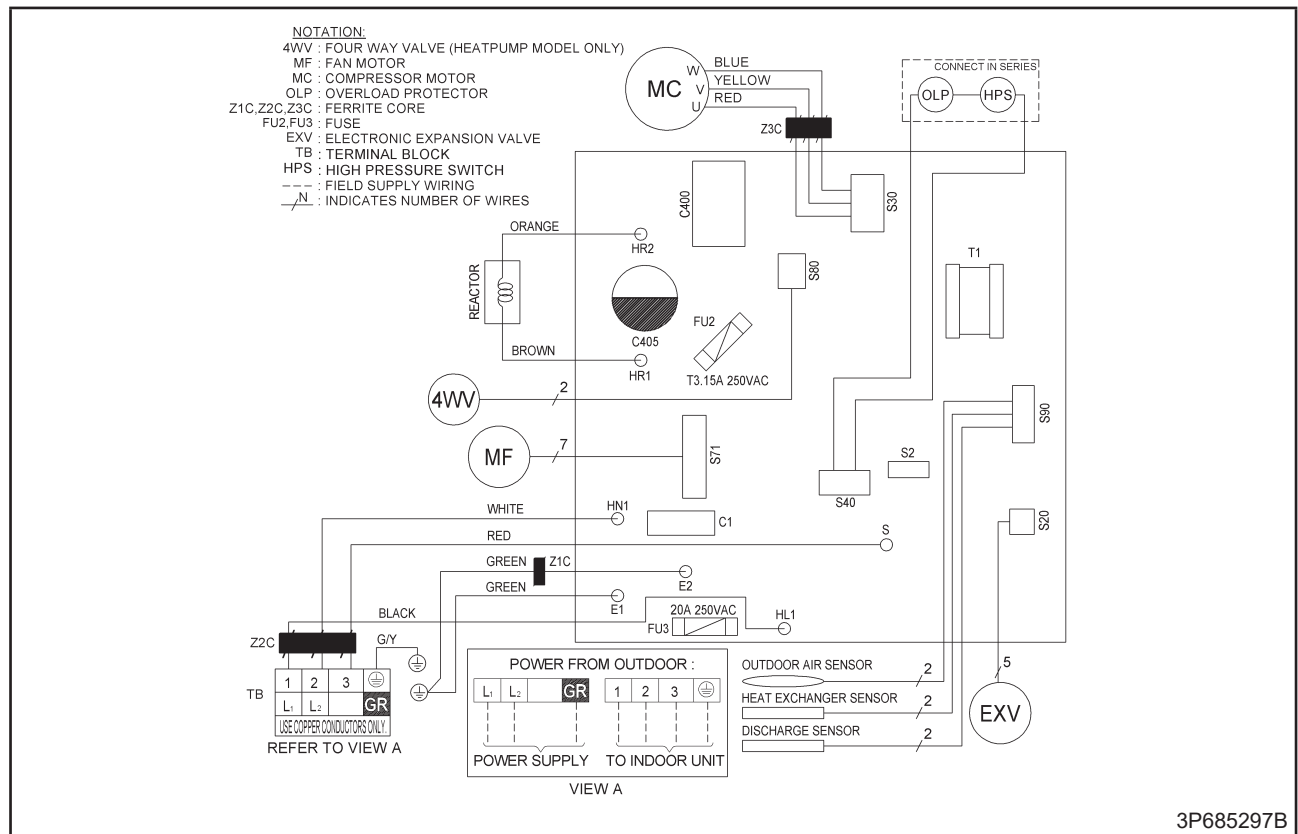


Model : RXNG18A

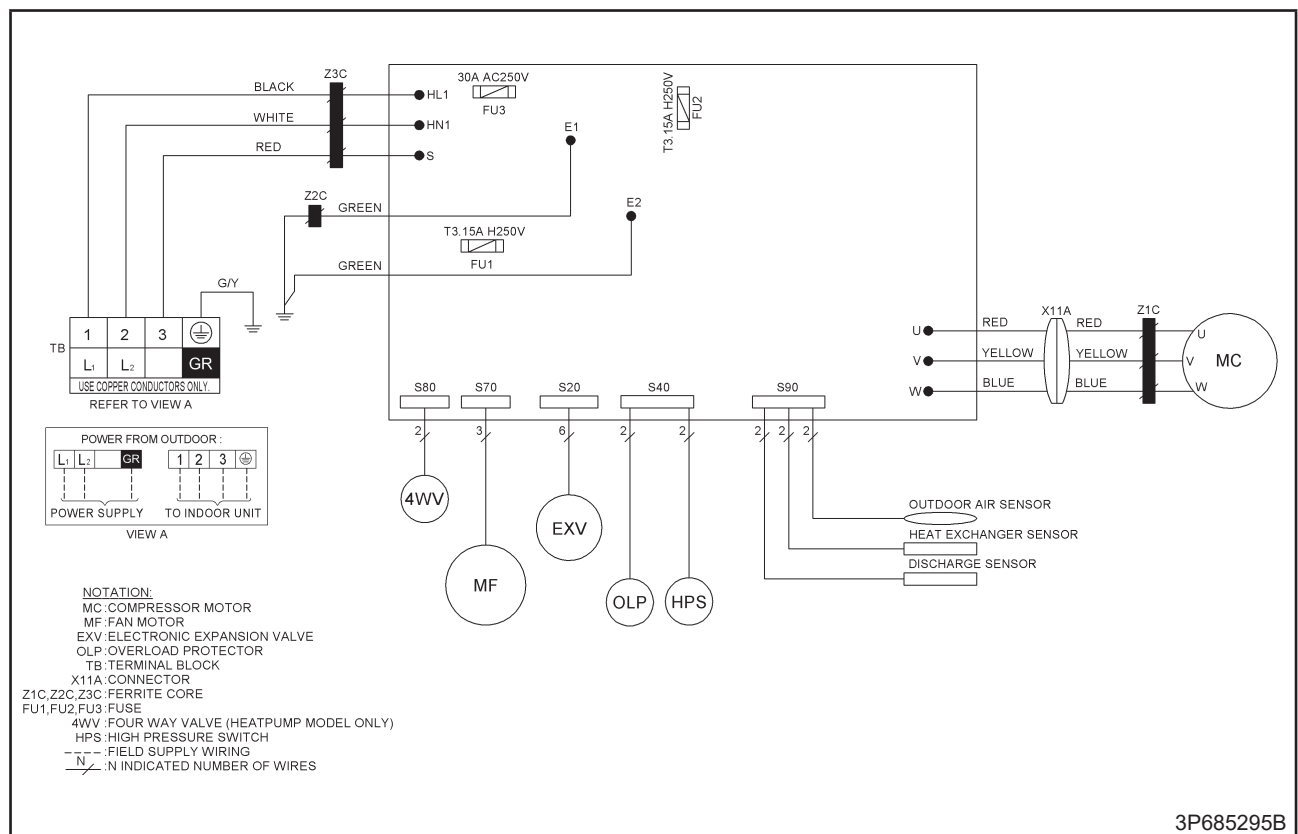


Outdoor Unit

Model : RXNG09/12A



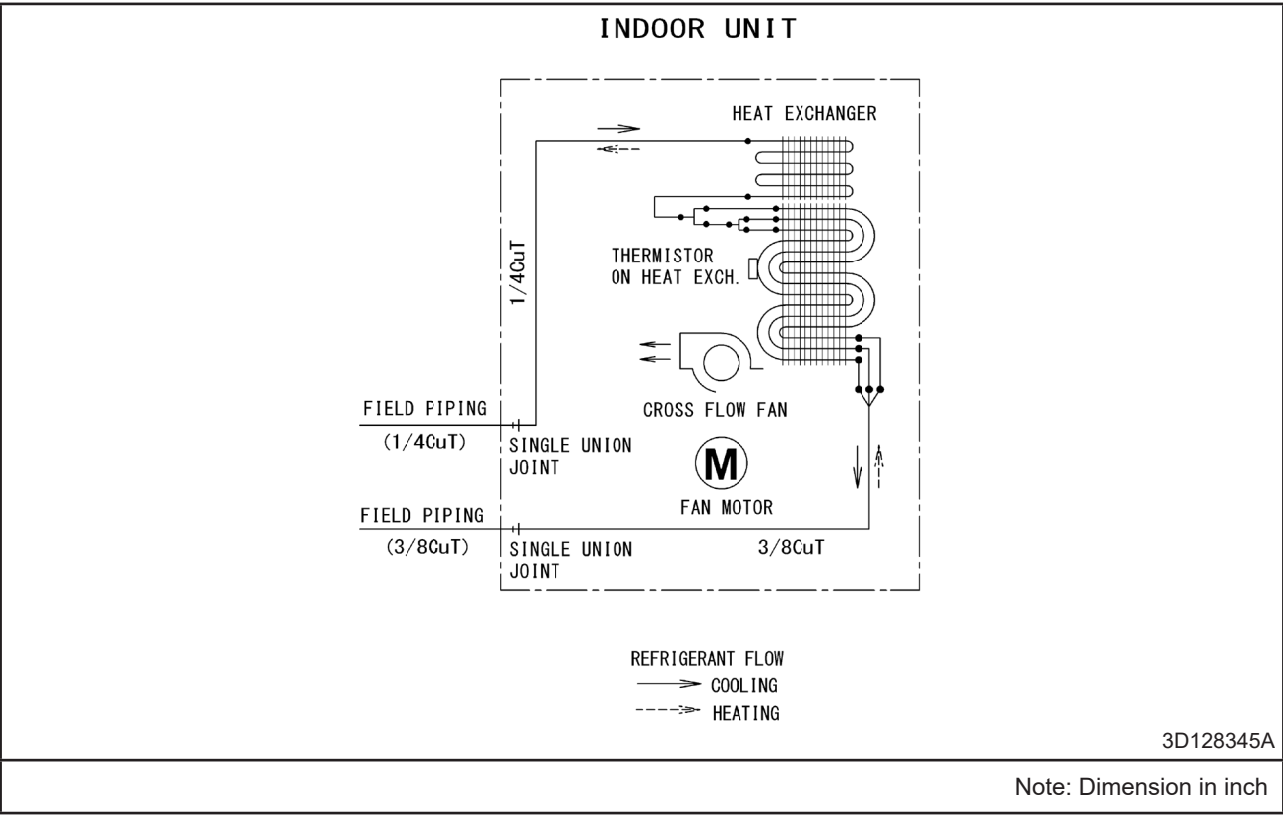
Model : RXNG18A



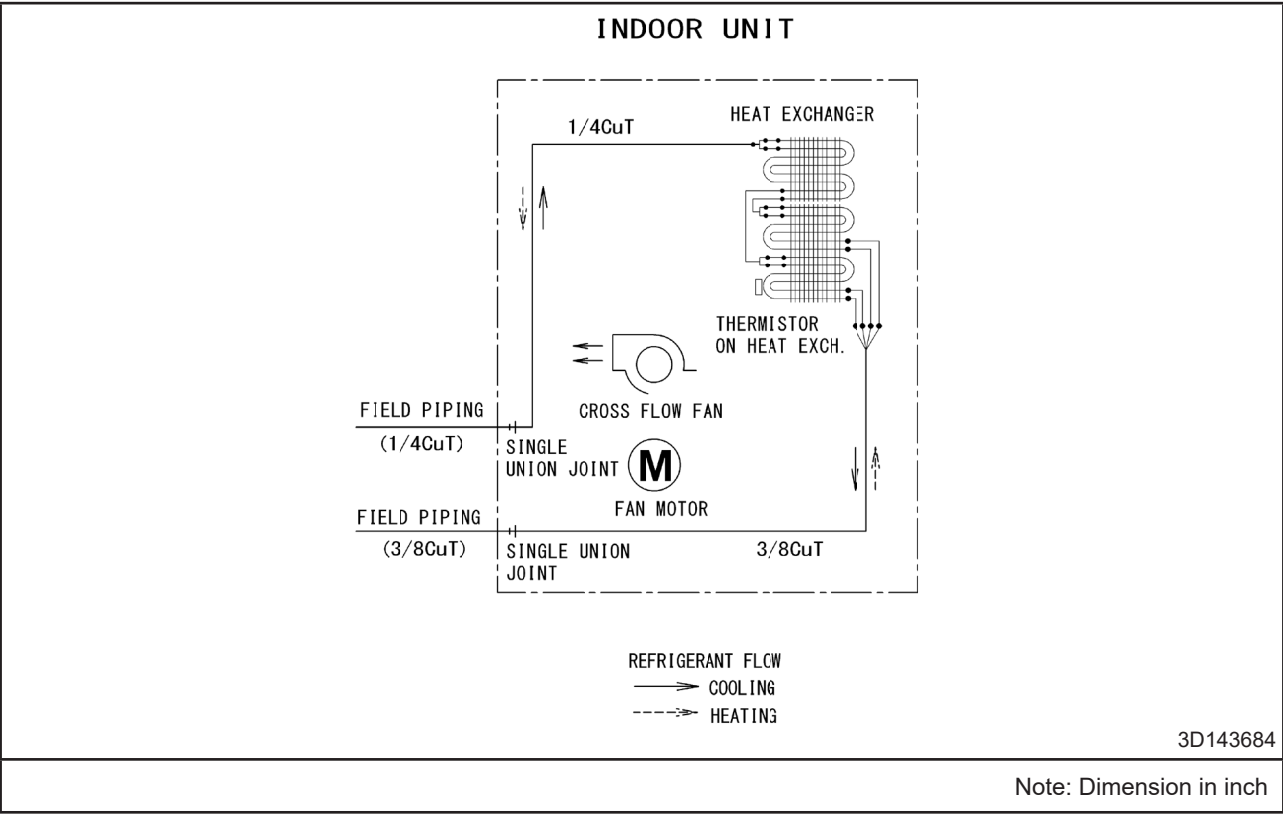
Piping Diagrams

Indoor Unit

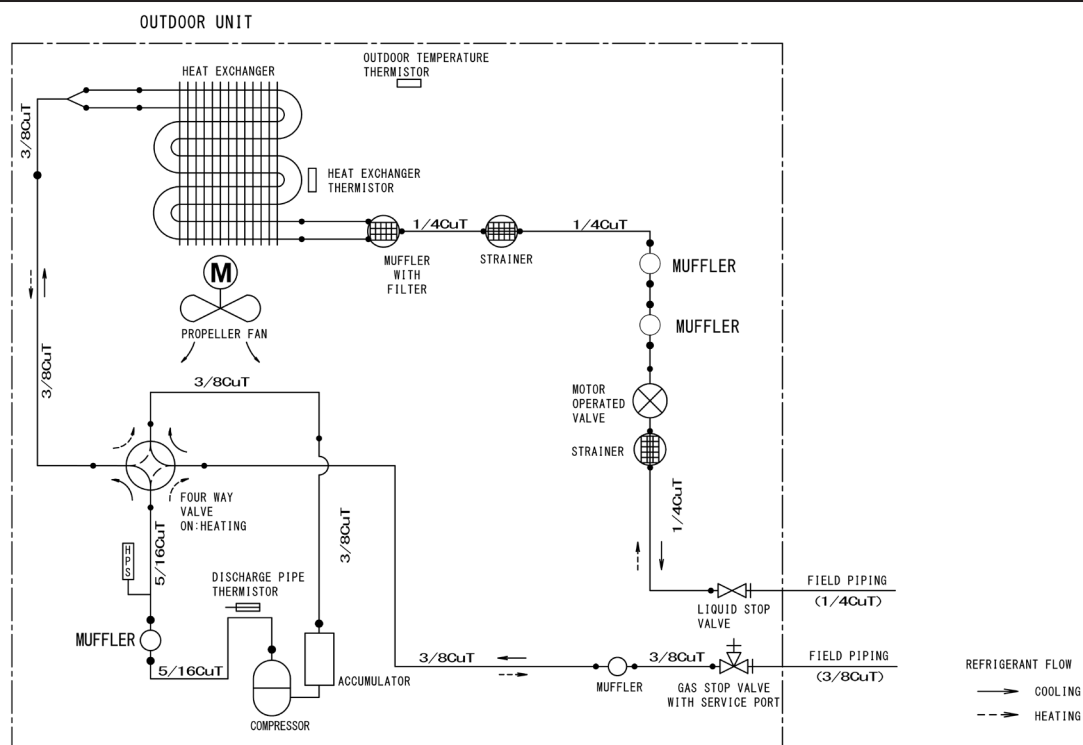
Model : FTXNG09A



Model : FTXNG12A



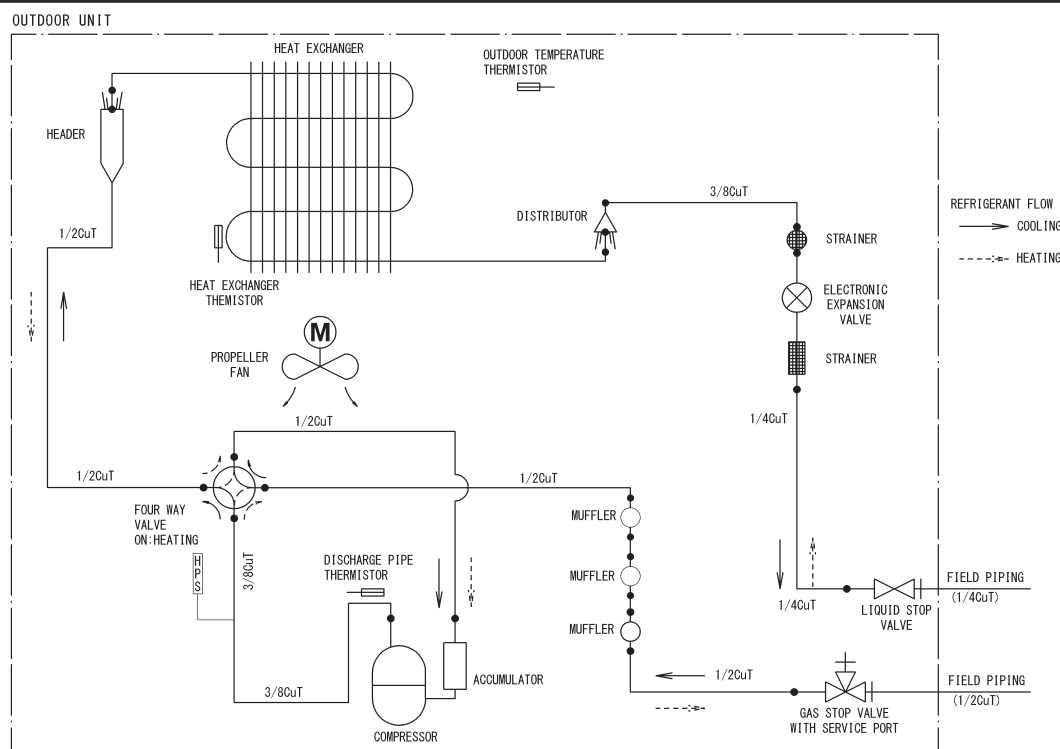
Model : RXNG12A



3D143433

Note: Dimension in inch

Model : RXNG18A



3D143716A

Note: Dimension in inch

Capacity Tables

Model : FTXNG09A - RXNG09A

AFR	12.20
BPF	0.26

Cooling: 208 - 230V 60Hz
Temp : Celcius/ TC,SHC,PI:kW

Indoor Temperature		Outdoor temperature (°C DB)																							
EWB	EDB	10			20			25			30			32			35			40			46		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	3.34	2.57	0.62	2.64	2.23	0.61	2.52	2.17	0.67	2.40	2.11	0.73	2.35	2.09	0.75	2.28	2.06	0.79	2.16	2.00	0.85	1.13	1.13	0.56
16	22	3.54	2.54	0.63	2.76	2.19	0.62	2.64	2.13	0.67	2.51	2.08	0.73	2.47	2.06	0.76	2.40	2.03	0.79	2.28	1.98	0.85	1.21	1.21	0.54
18	25	3.74	2.69	0.63	2.88	2.32	0.62	2.76	2.27	0.68	2.64	2.23	0.74	2.59	2.21	0.76	2.51	2.18	0.80	2.39	2.13	0.86	1.29	1.29	0.53
19	27	3.84	2.84	0.63	2.93	2.48	0.62	2.82	2.43	0.68	2.69	2.38	0.74	2.65	2.36	0.76	2.57	2.34	0.80	2.46	2.29	0.86	1.33	1.33	0.52
22	30	4.14	2.77	0.64	3.11	2.40	0.63	2.99	2.36	0.69	2.87	2.32	0.74	2.82	2.30	0.77	2.75	2.28	0.80	2.64	2.24	0.86	1.45	1.45	0.50
24	32	4.33	2.71	0.64	3.23	2.35	0.63	3.11	2.31	0.69	2.99	2.27	0.75	2.94	2.26	0.77	2.87	2.23	0.81	2.75	2.20	0.87	1.53	1.53	0.49

Cooling: 208 - 230V 60Hz
Temp : Fahrenheit/ TC,SHC:kBtu/h / PI:kW

Indoor Temperature		Outdoor temperature (°F DB)																							
EWB	EDB	50			68			77			86			90			95			104			115		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	11.41	8.76	0.62	9.00	7.59	0.61	8.59	7.40	0.67	8.18	7.21	0.73	8.02	7.14	0.75	7.77	7.02	0.79	7.36	6.83	0.85	3.86	3.86	0.56
60.8	71.6	12.09	8.67	0.63	9.41	7.46	0.62	9.00	7.28	0.67	8.57	7.10	0.73	8.43	7.04	0.76	8.18	6.93	0.79	7.77	6.76	0.85	4.14	4.14	0.54
64.4	77.0	12.76	9.17	0.63	9.82	7.92	0.62	9.41	7.76	0.68	9.00	7.59	0.74	8.84	7.53	0.76	8.57	7.43	0.80	8.17	7.27	0.86	4.41	4.41	0.53
67.0	80.0	13.10	9.70	0.63	10.01	8.44	0.62	9.61	8.29	0.68	9.19	8.13	0.74	9.03	8.07	0.76	8.80	7.97	0.80	8.38	7.82	0.86	4.55	4.55	0.52
71.6	86.0	14.11	9.44	0.64	10.62	8.19	0.63	10.22	8.05	0.69	9.80	7.91	0.74	9.64	7.85	0.77	9.39	7.77	0.80	9.00	7.64	0.86	4.96	4.96	0.50
75.2	89.6	14.78	9.25	0.64	11.02	8.01	0.63	10.62	7.88	0.69	10.22	7.75	0.75	10.04	7.70	0.77	9.80	7.62	0.81	9.39	7.50	0.87	5.22	5.22	0.49

Heating: 208 - 230V 60Hz
Temp : Celcius/ TC,SHC,PI:kW

AFR	11.38
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Indoor Temperature		Outdoor temperature (°C WB)											
EDB		-15		-10		-5		0		6		10	
°C		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0		1.31	0.50	1.58	0.52	1.84	0.55	2.11	0.72	2.85	0.76	3.10	0.78
20.0		1.23	0.51	1.49	0.54	1.76	0.56	2.03	0.74	2.75	0.77	3.00	0.80
22.0		1.20	0.52	1.46	0.54	1.73	0.57	1.99	0.74	2.71	0.78	2.97	0.81
24.0		1.16	0.52	1.43	0.55	1.69	0.57	1.96	0.75	2.68	0.78	2.93	0.81
25.0		1.15	0.53	1.41	0.55	1.68	0.58	1.95	0.76	2.66	0.79	2.91	0.82
27.0		1.12	0.53	1.38	0.56	1.65	0.58	1.91	0.76	2.62	0.80	2.87	0.82

Heating: 208 - 230V 60Hz
Temp : Fahrenheit/ TC,SHC:kBtu/h / PI:kW

Indoor Temperature		Outdoor temperature (°F WB)											
EDB		5		14		23		32		43		50	
°F		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
59.0		4.46	0.50	5.38	0.52	6.28	0.55	7.20	0.72	9.72	0.76	10.57	0.78
20.0		4.21	0.51	5.10	0.54	6.01	0.56	6.92	0.74	9.40	0.77	10.25	0.80
22.0		4.09	0.52	4.99	0.54	5.90	0.57	6.80	0.74	9.26	0.78	10.12	0.81
24.0		3.97	0.52	4.88	0.55	5.78	0.57	6.68	0.75	9.14	0.78	9.99	0.81
25.0		3.92	0.53	4.82	0.55	5.74	0.58	6.65	0.76	9.08	0.79	9.92	0.82
27.0		3.81	0.53	4.72	0.56	5.61	0.58	6.52	0.76	8.94	0.80	9.79	0.82

Symbols

AFR	Air Flow rate	(m3/min)
BPF	Bypass factor	
EWB	Entering Wet Bulb	(°C)/ (°F)
EDB	Entering Dry Bulb	(°C)/ (°F)
TC	Total Capacity	(kW)/ (kBtu/h)
SHC	Sensible Heat Capacity	(kW)/ (kBtu/h)
PI	Power Input	(kW)

NOTES:

- 1) Shows nominal(rated) capacities and power input
- 2) TC, SHC and PI must be calculated by interpolation using the figures in the above table
- 3) Capacities are based on the following condition
Corresponding refrigerant piping length :25ft
Level difference :0ft

3D143863A

Model : FTXNG12A - RXNG12A

AFR	12.35
BPF	0.20

Cooling: 208 - 230V 60Hz
Temp : Celcius/TC,SHC,PI/kW

Indoor Temperature			Outdoor Temperature [°C DB]											
EWB	EDB	°C	10	15	20	25	30	35	40	46	52	58	64	70
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	4.19	3.09	1.29	3.30	2.64	0.99	3.15	2.57	1.09	3.00	2.50	1.18	2.94
16.0	22.0	4.38	3.03	1.30	3.45	2.60	1.00	3.15	2.46	1.19	3.09	2.44	1.23	2.85
18.0	25.0	4.57	3.16	1.31	3.60	2.74	1.00	3.45	2.68	1.10	3.30	2.62	1.19	3.24
19.0	27.0	4.65	3.32	1.31	3.67	2.91	1.00	3.53	2.85	1.10	3.37	2.79	1.19	3.31
22.0	30.0	4.94	3.20	1.32	3.90	2.81	1.01	3.75	2.76	1.11	3.60	2.70	1.21	3.54
24.0	32.0	5.44	3.22	1.42	4.05	2.75	1.02	3.90	2.70	1.12	3.75	2.65	1.22	3.69

Cooling: 208 - 230V 60Hz
Temp : Fahrenheit/TC,SHC,kBtu/h / Pi/kW

Indoor Temperature			Outdoor temperature [°F DB]											
EWB	EDB	°F	50	58	68	77	86	90	95	104	115	124	131	141
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	65.0	14.28	10.53	1.29	11.27	9.02	0.99	10.75	8.77	1.09	10.24	8.53	1.18	10.04
60.8	71.6	14.94	10.33	1.30	11.79	8.86	1.00	11.27	8.63	1.09	10.74	8.39	1.19	10.55
64.4	77.0	15.58	10.78	1.31	12.29	9.35	1.00	11.79	9.14	1.10	11.27	8.92	1.19	11.06
67.0	80.0	15.88	11.31	1.31	12.53	9.91	1.00	12.03	9.71	1.10	11.51	9.50	1.19	11.31
71.6	86.0	16.85	10.91	1.32	13.30	9.59	1.01	12.79	9.41	1.11	12.27	9.23	1.21	12.07
75.2	89.6	18.55	11.00	1.42	13.80	9.37	1.02	13.30	9.20	1.12	12.79	9.04	1.22	12.57

Heating: 208 - 230V 60Hz
Temp : Celcius/TC,SHC,PI/kW

Indoor Temperature			Outdoor temperature [°C WB]											
EDB	°F	-15	-10	-5	0	6	10	18	24	30	36	42	48	54
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	PI
15.0	59.0	1.45	0.55	1.75	0.58	2.11	0.61	2.42	0.93	3.43	0.98	3.73	1.02	4.90
20.0	68.0	1.37	0.56	1.66	0.59	2.02	0.62	2.33	0.96	3.31	1.00	3.61	1.04	4.71
22.0	71.6	1.33	0.57	1.62	0.60	1.98	0.63	2.29	0.96	3.26	1.01	3.57	1.05	4.63
24.0	75.2	1.29	0.57	1.59	0.61	1.94	0.63	2.25	0.97	3.22	1.02	3.52	1.06	4.55
25.0	77.0	1.27	0.58	1.57	0.61	1.93	0.64	2.23	0.98	3.20	1.02	3.49	1.06	4.52
27.0	80.6	1.24	0.58	1.53	0.62	1.89	0.64	2.19	0.98	3.15	1.04	3.45	1.07	4.60

Heating: 208 - 230V 60Hz
Temp : Fahrenheit/TC,SHC,kBtu/h / Pi/kW

Indoor Temperature			Outdoor temperature [°F WB]											
EDB	°F	5	14	23	32	43	50	64	70	76	82	88	94	100
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	PI
59.0	49.5	0.55	5.96	0.58	7.20	0.61	8.25	0.93	11.69	0.98	12.71	1.02	16.71	1.44
70.0	46.7	0.56	5.66	0.59	6.89	0.62	7.93	0.96	11.30	1.00	12.33	1.04	16.06	1.48
71.6	45.3	0.57	5.54	0.60	6.76	0.63	7.80	0.96	11.14	1.01	12.17	1.05	15.79	1.49
75.2	44.1	0.57	5.42	0.61	6.63	0.63	7.66	0.97	10.99	1.02	12.01	1.06	15.51	1.50
77.0	43.5	0.58	5.34	0.61	6.58	0.64	7.62	0.98	10.91	1.02	11.92	1.06	15.43	1.51
80.6	42.3	0.58	5.23	0.62	6.44	0.64	7.48	0.98	10.75	1.04	11.78	1.07	15.70	1.66

- Symbols
- AFR Air Flow rate
 - BPF Bypass factor
 - EWB Entering Wet Bulb
 - EDB Entering Dry Bulb
 - TC Total Capacity
 - SHC Sensible Heat Capacity
 - PI Power Input

- NOTES:
- Shows nominal(rated) capacities and power input
 - TC, SHC and PI must be calculated by interpolation using the figures in the above table
 - Capacities are based on the following condition
Corresponding refrigerant piping length :25ft
Level difference :0ft

AFR	20.27
BPF	0.31

Cooling: 208 - 230V 60Hz

Temp : Celcius/ TC,SHC,PI:kW

Indoor Temperature		Outdoor temperature [°C DB]																							
EWB	EDB	10			20			25			30			32			35			40			46		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	6.85	2.92	1.34	5.41	4.10	1.31	5.15	3.98	1.44	4.91	3.85	1.56	4.81	3.81	1.61	4.67	3.74	1.70	4.42	3.62	1.82	2.32	2.03	1.19
16	22	7.26	2.88	1.35	5.65	4.03	1.32	5.40	3.91	1.45	5.15	3.79	1.58	5.06	3.75	1.63	4.91	3.68	1.70	4.67	3.57	1.83	2.48	2.17	1.17
18	25	7.66	3.10	1.36	5.89	4.22	1.33	5.65	4.11	1.46	5.40	4.01	1.58	5.31	3.96	1.63	5.15	3.90	1.71	4.90	3.80	1.84	2.65	2.28	1.14
19	27	7.86	3.22	1.36	6.01	4.45	1.33	5.77	4.34	1.46	5.52	4.24	1.58	5.42	4.20	1.63	5.27	4.14	1.71	5.03	4.04	1.85	2.73	2.34	1.12
22	30	8.47	3.26	1.37	6.38	4.29	1.34	6.13	4.20	1.47	5.88	4.11	1.60	5.79	4.08	1.65	5.64	4.02	1.73	5.40	3.94	1.86	2.98	2.52	1.08
24	32	8.87	3.20	1.38	6.62	4.18	1.36	6.38	4.10	1.48	6.13	4.02	1.61	6.03	3.99	1.66	5.88	3.94	1.73	5.64	3.86	1.86	3.14	2.65	1.05

Cooling: 208 - 230V 60Hz

Temp : Fahrenheit/ TC,SHC:kBtu/h / PI:kW

Indoor Temperature		Outdoor temperature [°F DB]																							
EWB	EDB	50			68			77			86			90			95			104			115		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	23.37	9.95	1.34	18.44	14.00	1.31	17.59	13.57	1.44	16.75	13.15	1.56	16.42	12.99	1.61	15.92	12.75	1.70	15.07	12.34	1.82	7.90	6.94	1.19
60.8	71.6	24.76	9.82	1.35	19.28	13.74	1.32	18.43	13.34	1.45	17.56	12.94	1.58	17.26	12.80	1.63	16.75	12.57	1.70	15.92	12.19	1.83	8.47	7.39	1.17
64.4	77.0	26.14	10.59	1.36	20.11	14.39	1.33	19.28	14.03	1.46	18.43	13.67	1.58	18.10	13.53	1.63	17.56	13.30	1.71	16.74	12.95	1.84	9.03	7.78	1.14
67.0	80.0	26.83	10.97	1.36	20.51	15.17	1.33	19.68	14.82	1.46	18.82	14.47	1.58	18.50	14.33	1.63	18.00	14.13	1.71	17.17	13.80	1.85	9.32	7.99	1.12
71.6	86.0	28.91	11.11	1.37	21.75	14.64	1.34	20.93	14.34	1.47	20.07	14.02	1.60	19.74	13.90	1.65	19.23	13.72	1.73	18.43	13.43	1.86	10.16	8.60	1.08
75.2	89.6	30.28	10.90	1.38	22.58	14.28	1.36	21.75	13.99	1.48	20.93	13.72	1.61	20.57	13.60	1.66	20.07	13.43	1.73	19.23	13.16	1.86	10.70	9.03	1.05

Heating: 208 - 230V 60Hz

Temp : Celcius/ TC,SHC,PI:kW

AFR	20.27
-----	-------

Indoor Temperature		Outdoor temperature [°C WB]													
EDB		-15		-10		-5		0		6		10		18	
°C		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0		2.49	1.02	3.00	1.07	3.51	1.13	4.02	1.47	5.42	1.56	5.90	1.61	8.93	2.73
20.0		2.35	1.05	2.85	1.10	3.35	1.15	3.86	1.52	5.24	1.59	5.72	1.64	8.43	2.76
22.0		2.28	1.06	2.79	1.12	3.29	1.17	3.80	1.52	5.17	1.60	5.65	1.66	8.23	2.77
24.0		2.22	1.07	2.73	1.13	3.23	1.18	3.73	1.54	5.10	1.61	5.58	1.67	8.04	2.78
25.0		2.19	1.08	2.69	1.13	3.20	1.19	3.71	1.55	5.07	1.62	5.53	1.68	7.94	2.79
27.0		2.13	1.09	2.63	1.15	3.13	1.20	3.64	1.56	4.99	1.64	5.47	1.69	7.73	2.80

Heating: 208 - 230V 60Hz

Temp : Fahrenheit/ TC,SHC:kBtu/h / PI:kW

Indoor Temperature		Outdoor temperature [°F WB]													
EDB		5		14		23		32		43		50		64	
°F		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
59.0		8.50	1.02	10.24	1.07	11.96	1.13	13.71	1.47	18.51	1.56	20.13	1.61	30.47	2.73
20.0		8.02	1.05	9.71	1.10	11.44	1.15	13.18	1.52	17.90	1.59	19.52	1.64	28.78	2.76
22.0		7.78	1.06	9.51	1.12	11.23	1.17	12.95	1.52	17.64	1.60	19.27	1.66	28.10	2.77
24.0		7.57	1.07	9.30	1.13	11.01	1.18	12.73	1.54	17.40	1.61	19.03	1.67	27.42	2.78
25.0		7.46	1.08	9.17	1.13	10.93	1.19	12.66	1.55	17.28	1.62	18.88	1.68	27.08	2.79
27.0		7.26	1.09	8.98	1.15	10.69	1.20	12.42	1.56	17.02	1.64	18.65	1.69	26.38	2.80

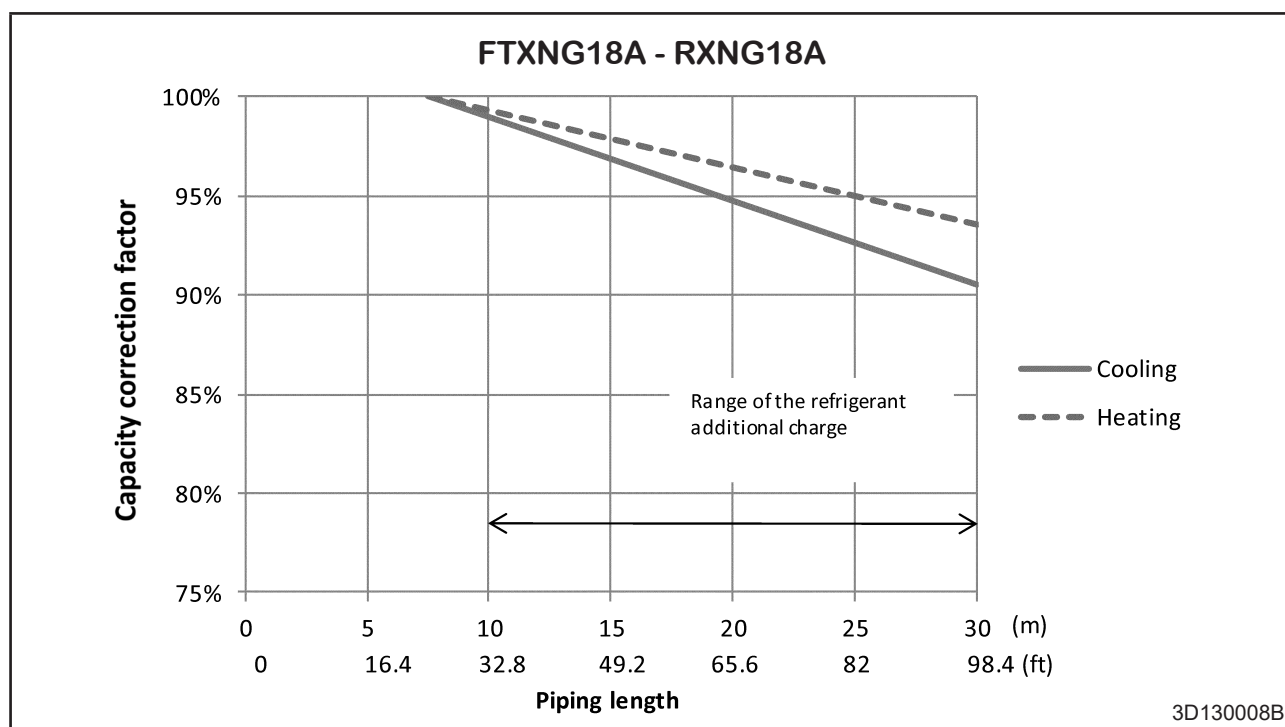
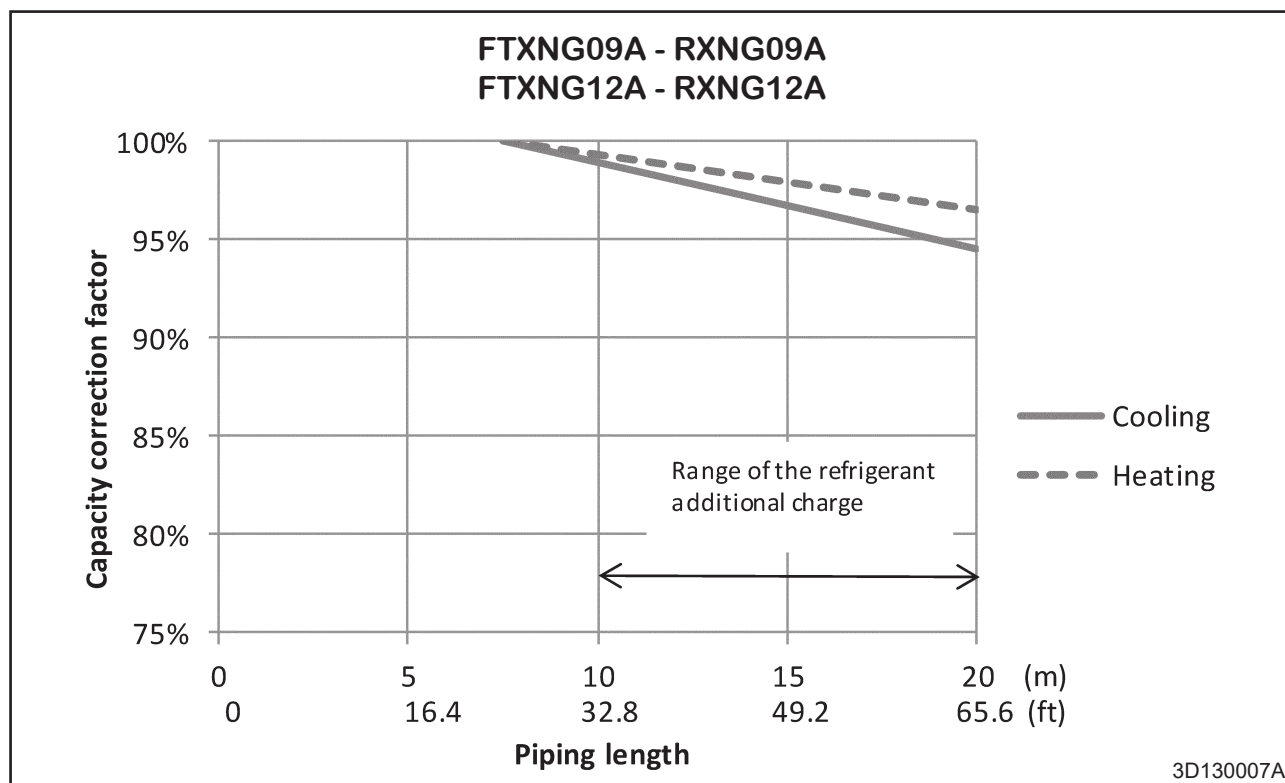
Symbols

AFR	Air Flow rate	(m3/min)
BPF	Bypass factor	
EWB	Entering Wet Bulb	(°C)/ (°F)
EDB	Entering Dry Bulb	(°C)/ (°F)
TC	Total Capacity	(kW)/ (kBtu/h)
SHC	Sensible Heat Capacity	(kW)/ (kBtu/h)
PI	Power Input	(kW)

NOTES:

- 1) Shows nominal(rated) capacities and power input
- 2) TC, SHC and PI must be calculated by interpolation using the figures in the above table
- 3) Capacities are based on the following condition
Corresponding refrigerant piping length :25ft
Level difference :0ft

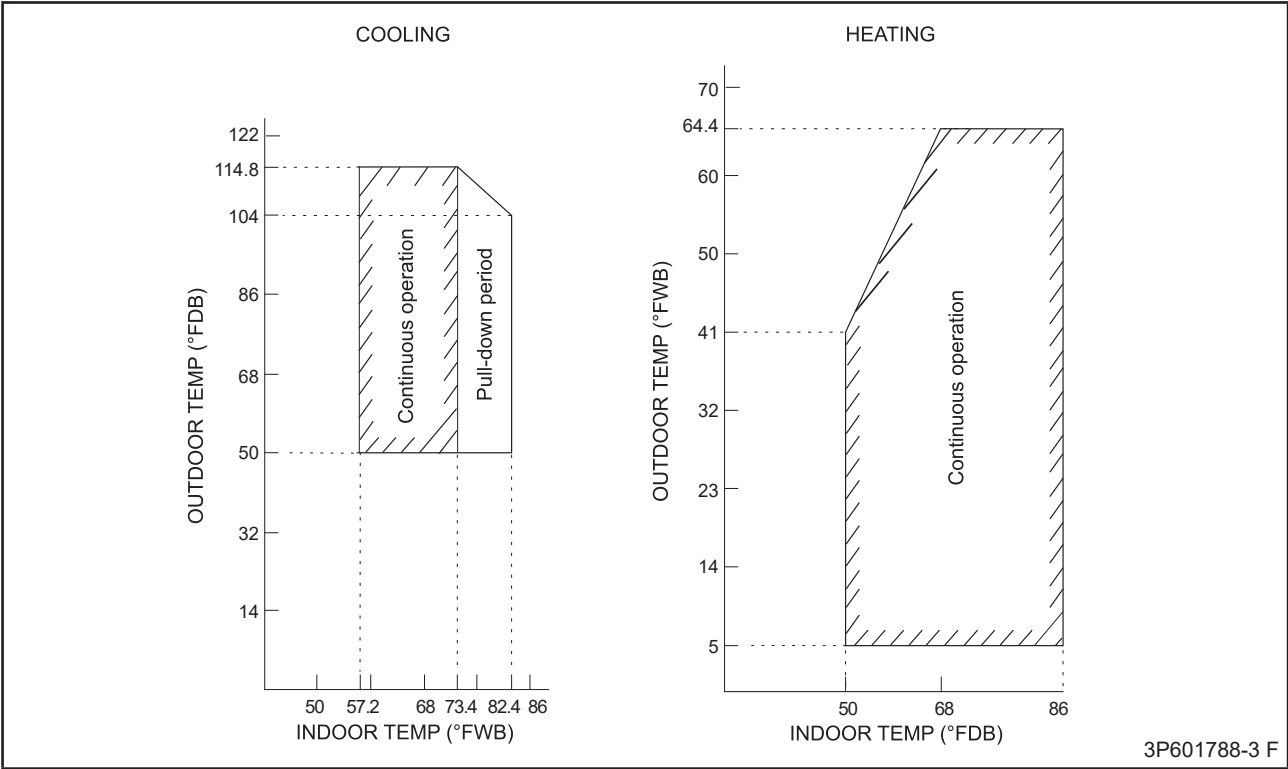
Capacity correction factor by the length of refrigerant piping

**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.

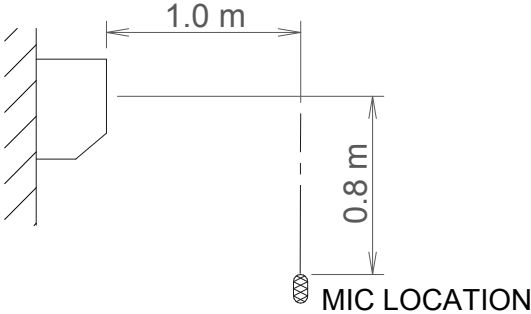
Operation Limit

Model : RXNG-A



Sound Level

Measuring Location

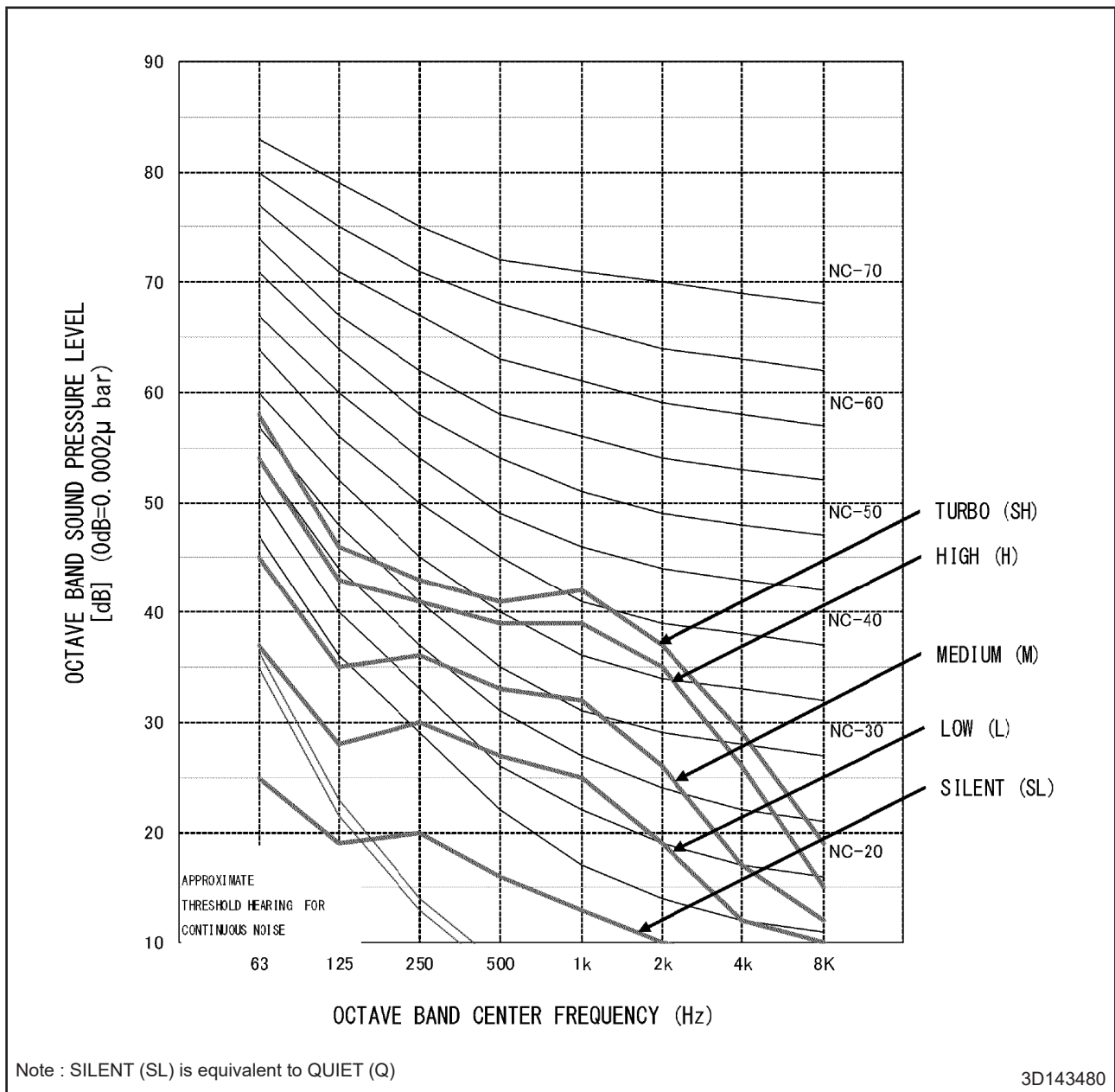
Model	Measuring Location
FTXNG09A FTXNG12A FTXNG18A	

Notes:
1. Operation sound is measured in an anechoic chamber.

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		
FTXNG09A (Cooling)	High	54	43	41	39	39	35	26	15	43	38
	Med	45	35	36	33	32	26	17	12	36	31
	Low	37	28	30	27	25	19	12	10	29	23
	Quiet	25	19	20	16	13	10	8	9	19	0

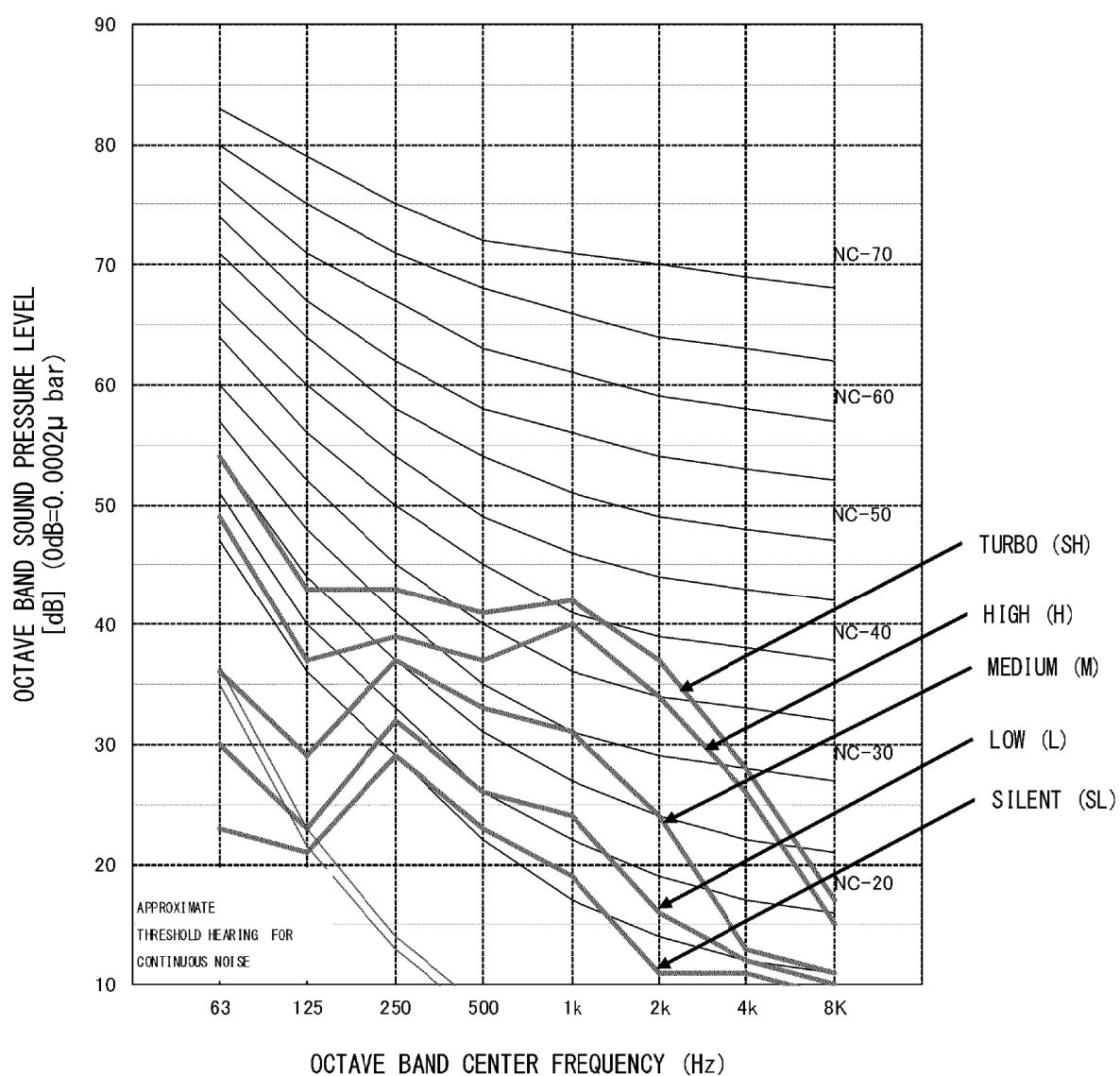
NC Curve



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		
FTXNG09A (Heating)	High	49	37	39	37	40	34	26	15	42	39
	Med	36	29	37	33	31	24	13	11	35	30
	Low	30	23	32	26	24	16	12	10	29	22
	Quiet	23	21	29	23	19	11	11	9	25	17

NC Curve



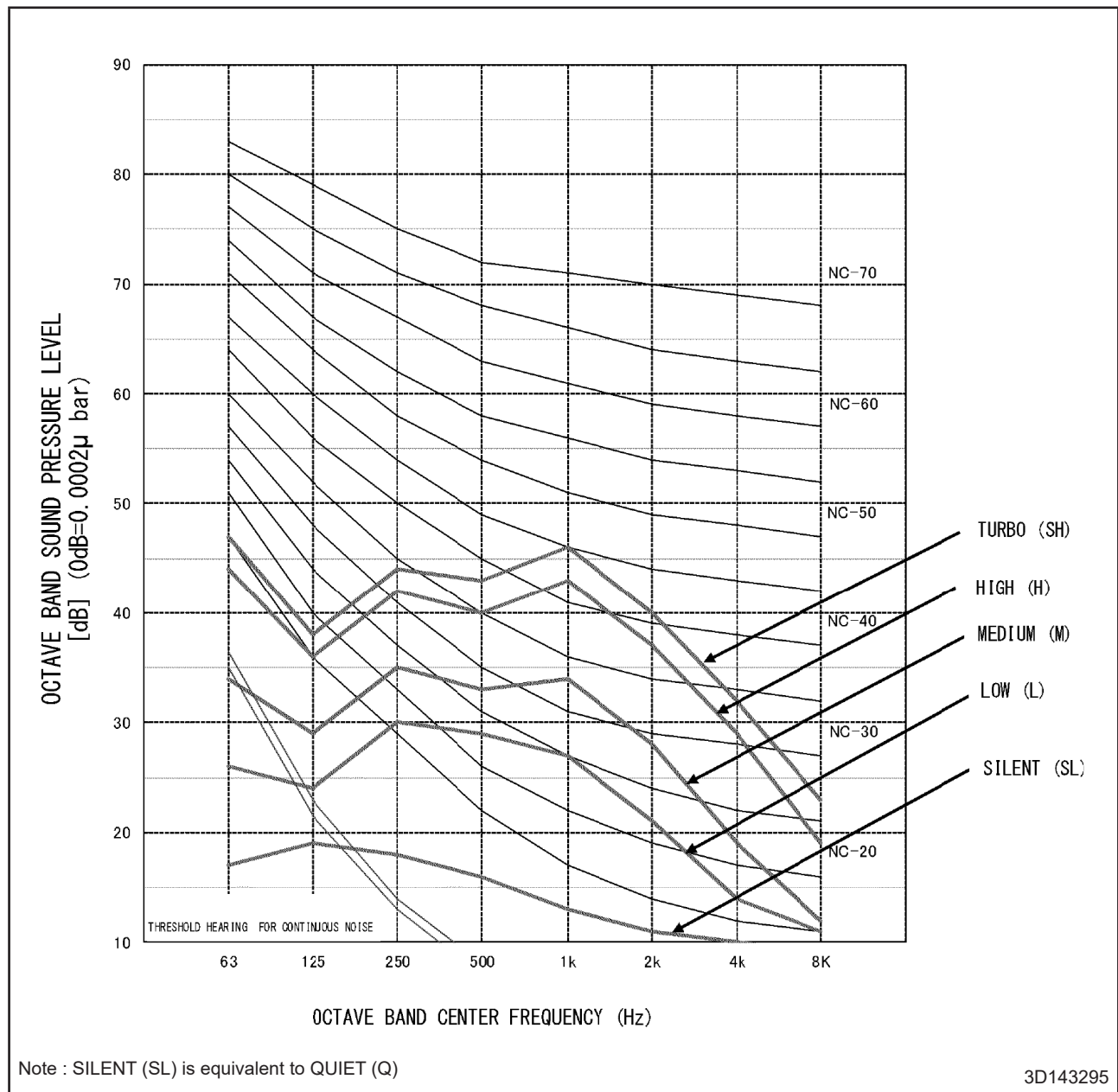
Note : SILENT (SL) is equivalent to QUIET (Q)

3D143480

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		
FTXNG12A (Cooling)	High	44	36	42	40	43	37	29	19	45	42
	Med	34	29	35	33	34	28	19	12	37	33
	Low	26	24	30	29	27	21	14	11	31	25
	Quiet	17	19	18	16	13	11	10	9	19	0

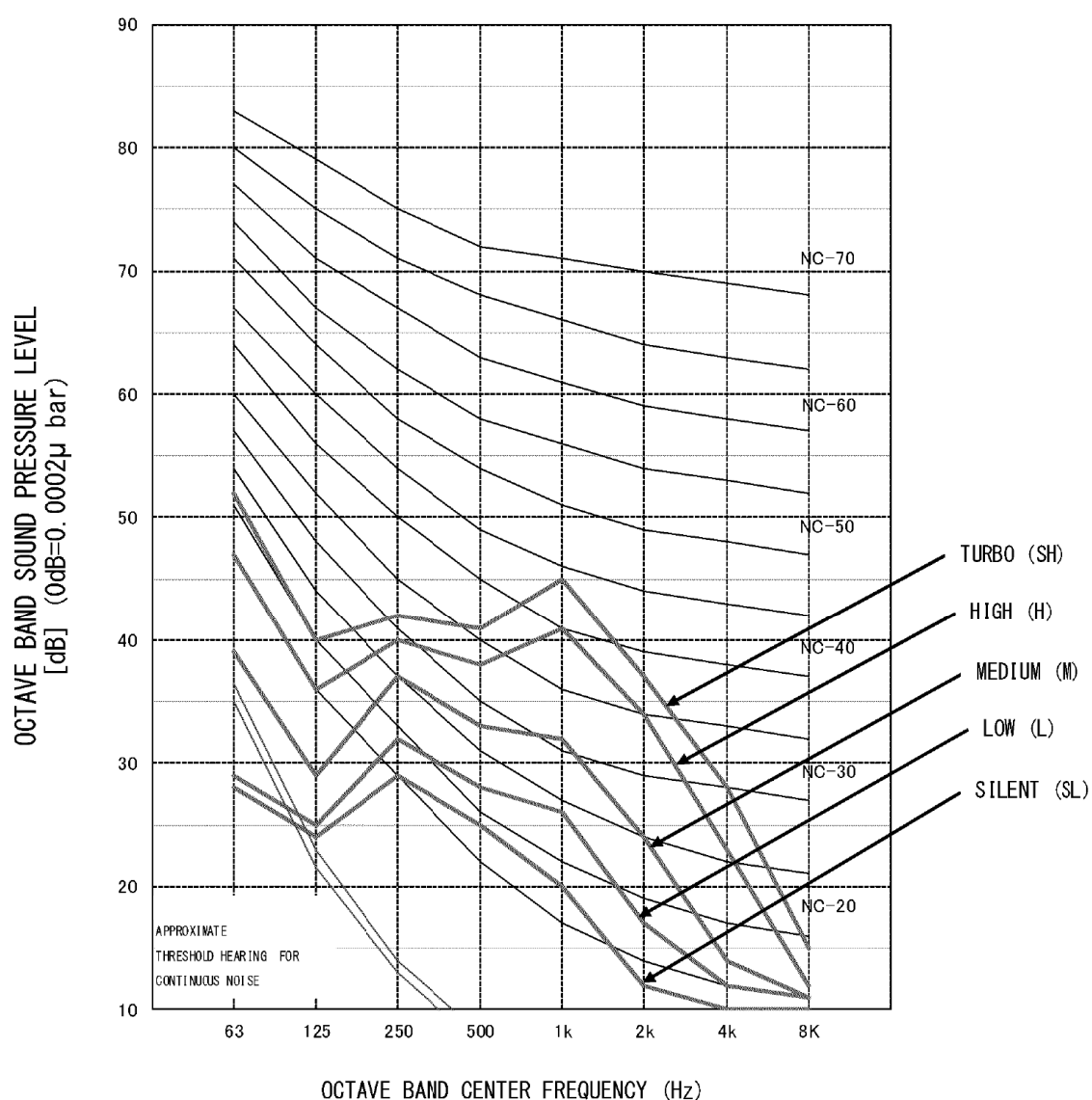
NC Curve



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		
FTXNG12A (Heating)	High	47	36	40	38	41	34	23	12	43	40
	Med	39	29	37	33	32	24	14	11	36	31
	Low	29	25	32	28	26	17	12	11	30	24
	Quiet	28	24	29	25	20	12	10	10	26	19

NC Curve



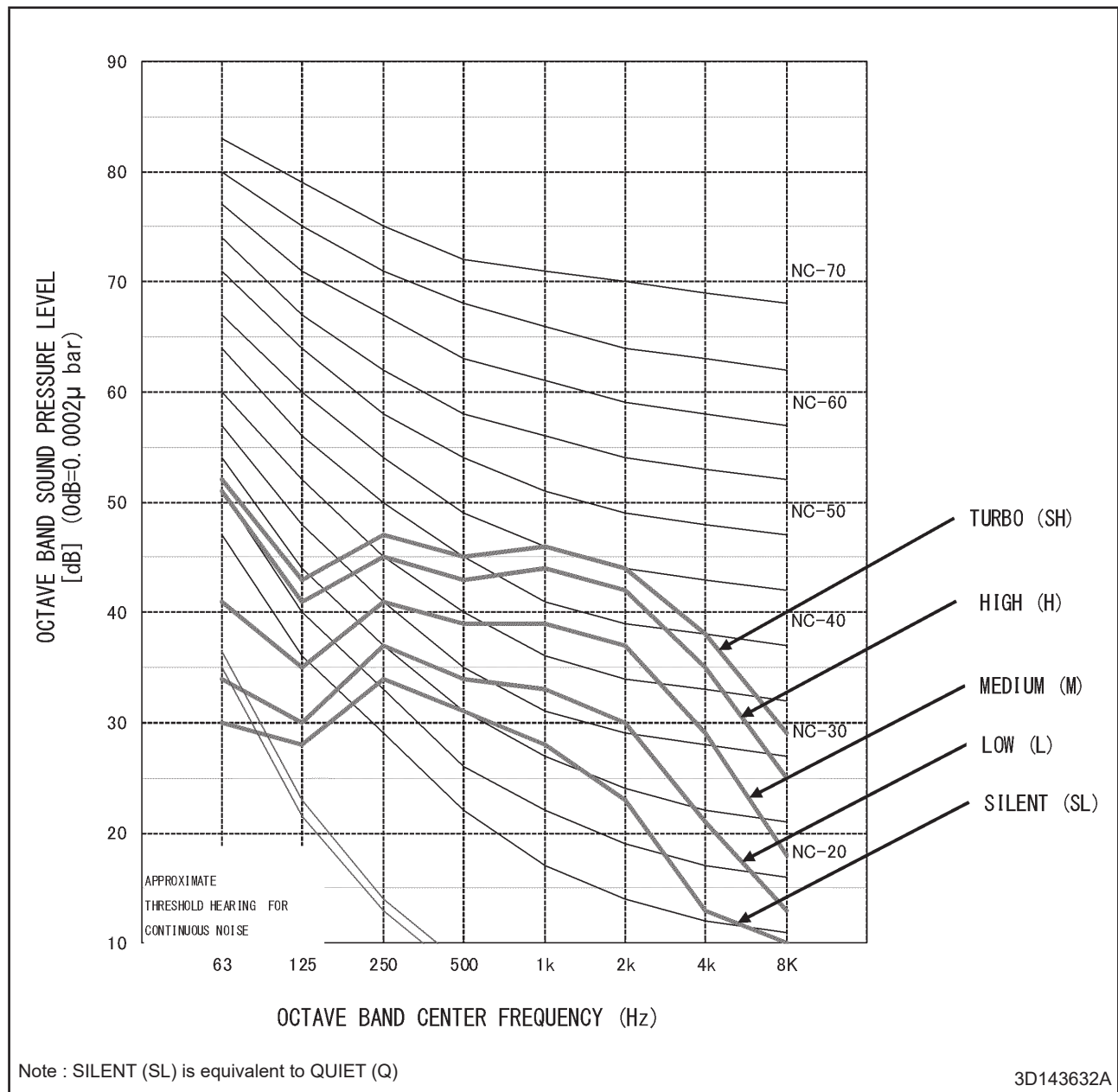
Note : SILENT (SL) is equivalent to QUIET (Q)

3D143295

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		
FTXNG18A (Cooling)	High	51	41	45	43	44	42	35	25	48	43
	Med	41	35	41	39	39	37	29	18	43	38
	Low	34	30	37	34	33	30	21	13	37	32
	Quiet	30	28	34	31	28	23	13	10	33	26

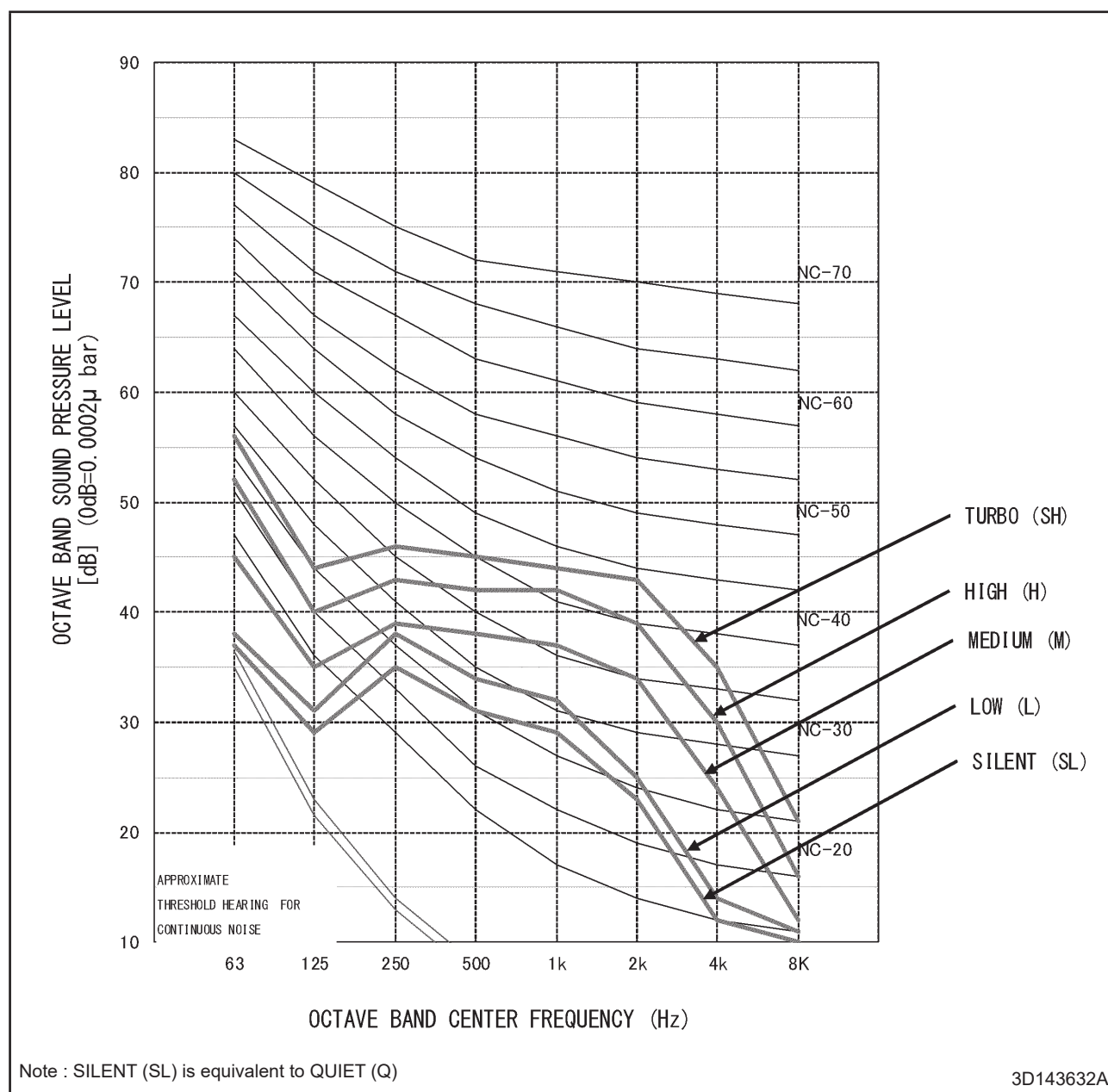
NC Curve



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		
FTXNG18A (Heating)	High	52	40	43	42	42	39	30	16	46	41
	Med	45	35	39	38	37	34	24	12	41	36
	Low	38	31	38	34	32	25	14	11	36	31
	Quiet	37	29	35	31	29	23	12	10	33	28

NC Curve



Electric Characteristic

Unit Combination		Power Supply				COMP		OFM		IFM	
Indoor Unit	Outdoor Unit	Hz-Volts	Voltage Range	MCA	MOP	RHz	A	kW	MOC	kW	MOC
FTXNG09A	RXNG09A	60Hz-208V	MAX. 60Hz 253V MIN. 60Hz 187V	12.35	15	88	4.34	0.026	0.60	0.022	0.35
		60Hz-230V									
FTXNG12A	RXNG12A	60Hz-208V	MAX. 60Hz 253V MIN. 60Hz 187V	12.40	15	96	5.57	0.026	0.61	0.022	0.40
		60Hz-230V									
FTXNG18A	RXNG18A	60Hz-208V	MAX. 60Hz 253V MIN. 60Hz 187V	16.55	20	90	8.17	0.055	1.30	0.039	0.55
		60Hz-230V									

Symbols:

MCA : Minimum Circuit Amps (A)
 MOP : Maximum Overcurrent Protection (A)
 COMP : Compressor
 RHz : Rated Operating Frequency (Hz)
 A : Compressor Input Current (A)
 OFM : Outdoor Fan Motor
 IFM : Indoor Fan Motor
 kW : Fan Motor Rated Output (kW)
 MOC : Maximum Operating Current (A)

Notes:

1. RHz is the max frequency that comes in cooling operation and heating operation.
2. RLA is the max current that comes in cooling operation and heating operation.
3. Maximum allowable voltage that is unbalance between phases is 2%.
4. Select wire size based on the larger value of MCA.
5. Use circuit breaker instead of fuse

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