ENGINEERING DATA

Split Unit Air Conditioner
Ceiling Exposed
Cooling Only [50Hz]

FHC-A Series

R32

ED3CE2-DM21V1
Supersede : ED3CE2-DM19V1

Table of Contents

Introduction

Model Name and Power Supply

Indoor Unit	Outdoor Unit	Power Supply
FHC50AV1M FHC50AV1MW	RC50BV1M	1Phase, 220-240V, 50Hz
	RC50AGV1M	
FHC60AV1M FHC60AV1MW	RC60BV1M	
	RC60AGV1M	
FHC85AV1M FHC85AV1MW	RC85BV1M	
	RC85AGV1M	
FHC100AV1M FHC100AV1MW	RC100BV1M	
	RC100AGV1M	
FHC125AV1M FHC125AV1MW	RC125BY1M	3Phase, 380-415V, 50Hz
	RC125AGY1M	
FHC140AV1M FHC140AV1MW	RC140BY1M	
	RC140AGY1M	
FHC160AV1M FHC160AV1MW	RC160BY1M	
	RC160AGY1M	

Nomenclature

Indoor Unit

Definition	Description
Unit Category	**F** : Air-Cooled Split Indoor Unit
Product Type	**H** : Ceiling Exposed (Non-Convertible)
System	**C** : R32, Non-Inverter, Cooling Only
Capacity Indication*	**50** : 5.0 kW
Major Design Category	**A** : A Series
Power Supply	**V1** : 1Phase / 50Hz / 220-240V
Country	**M** : Malaysia
Handset Specifications	**"-"** : Wireless Controller **W** : Wired Controller

Outdoor Unit

Definition	Description
Unit Category	**R** **:** Air-Cooled Split Outdoor Unit
System	**C** : R32, Non-Inverter, Cooling Only
Capacity Indication*	**50** : 5.0 kW
Major Design Category	**A** : A Series **B** : B Series
Fin Specification	**"-"** : Bare/Blue Fin **G** : Gold Fin
Power Supply	**V1** : 1Phase / 50Hz / 220-240V **Y1** : 3Phase / 50Hz / 380-415V
Country	**M** : Malaysia

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

Functions

Category	Functions	FHC50/60/85/100A RC50/60/85/100B/A	FHC125A RC125B/A	FHC140/160A RC140/160B/A
Basic Function	Inverter	-	-	-
	Operation Limit for Cooling (°CDB)(O/D)	19~46	19~46	19~46
	Operation Limit for Cooling (°FDB)(O/D)	66.2~114.8	66.2~114.8	66.2~114.8
Compressor	Rotary Compressor	●	●	-
	Scroll Compressor	-	-	●
Comfortable Airflow	4-Way Airflow Operation	-	-	-
	8-Way Airflow Operation	-	-	-
Comfort Control	Auto Fan Speed	●	●	●
	Indoor Unit Quiet Operation	-	-	-
Operation	Programme Dry Function	●	●	●
	Fan Only	●	●	●
Lifestyle Convenience	Indoor Unit ON/OFF Button	-	-	-
	Signal Receiving Sign *1	●	●	●
	R/C with Backlight *2	●*	●*	●*
	Room Temperature Display *2	●*	●*	●*
Health & Clean	Saranet Filter	●	●	●
	Gin-ION Blue Filter	-	-	-
	Ionizer	-	-	-
	Washable Grille	●	●	●
Timer	Weekly Timer Operation *3	●*	●*	●*
	24-hour ON/OFF Timer (R/C) *1	●	●	●
Worry Free (Reliability & Durability)	Auto Restart (After Power Failure)	●	●	●
	Self-diagnosis	●	●	●
	Wiring Error Check Function	-	●	●
	Anti-corrosion Treatment of Outdoor Heat Exchanger *4	Blue Fin	Blue Fin	Blue Fin
	R32 Refrigerant Gas Sensor	-	-	-
Flexibility	ESP Selection	-	-	-
	Water Pump (Water Drainage Pipe Flexibilty)	●*	●*	●*
	°F/°C Changeover R/C Temperature Display (Factory setting: °C)	●	●	●
	Pre-charged Piping Length	7.5m	7.5m	7.5m
Remote Control	WIFI Connectivity	-	-	-
	BAG Connectivity	●*	●*	●*
	NIM Adaptor	●*	●*	●*
	Sequential NIM Adaptor	●*	●*	●*
Remote Controller	Wireless	DGS01	DGS01	DGS01
	Wired (Optional)	DSLM8	DSLM8	DSLM8
	Wired (Optional)	BRC51D61	BRC51D61	BRC51D61

Note: ● : Available

- : Not Available

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

*1 : Applicable when wireless (DGS01) remote controller is used for selected models.

*2 : Applicable when wired (BRC51D61/62) (SHIRO) is used.

*3 : Applicable when wired (DSLM8 / BRC51D61/62) remote controller is used.

*4 : Applicable for RC-B models as standard and RC-AG models as optional fin spec

Specifications

MODEL	INDOOR UNIT		FHC50A	FHC60A	FHC85A	FHC100A
	OUTDOOR UNIT		RC50B/A	RC60B/A	RC85B/A	RC100B/A
Rated Capacity		kW	5.42	6.89	8.65	10.55
		Btu/h	18500	23500	29500	36000
Rated Running Current		A	8.05	9.88	12.80	14.70
Rated Power Consumption		W	1785	2220	2860	3250
EER		W/W	3.04	3.10	3.02	3.25
CSPF		Wh/Wh	3.23	3.29	3.21	3.45
Power Factor (Rated)			0.96	0.98	0.97	0.96
Piping Connections	Liquid	mm	6.4	6.4	9.5	9.5
	Gas	mm	12.7	12.7	15.9	15.9
Refrigerant	Type		R32			
	Charge	kg	0.70	1.25	1.60	1.35
Max. Interunit Piping Length		m	35	35	50	50
Max. Interunit Height Difference		m	20	20	30	30
INDOOR UNIT			FHC50A	FHC60A	FHC85A	FHC100A
Airflow Rate	High	CFM	620	620	830	1125
	Medium	CFM	600	600	730	1030
	Low	CFM	490	490	625	960
Sound Pressure Level (H/M/L)		dBA	47/46/43	47/46/43	48/45/42	52/50/48
Fan	Type		SIROCCO			
	Drive		DIRECT			
Fan Motor	Type		1-PHASE FIXED SPEED			
	Motor Output	W	95	95	100	140
	Running Current (Rated)	A	0.68	0.68	0.73	0.82
	Power Consumption (Rated)	W	132	132	158	184
Air Direction Control			MANUAL			
Air Filter			SARANET			
Dimensions (H x W x D)		mm	235 x 1203 x 680	235 x 1203 x 680	235 x1553 x 680	235 x 1903 x 680
Packaged Dimensions (H x W x D)		mm	299 x 1286 x 773	299 x 1286 x 773	299 x 1613 x 759	299 x 1986 x 773
Weight		kg	33	33	41	50
Condensate Drain Size		mm	19.0			
OUTDOOR UNIT			RC50B/A	RC60B/A	RC85B/A	RC100B/A
Casing Colour			IVORY WHITE			
Airflow Rate	High	CFM	1540	1400	1930	3450
Sound Pressure Level		dBA	52	52	54	56
Fan	Type		PROPELLER			
	Drive		DIRECT			
Fan Motor	Type		AC			
	Index of protection (IP)		44	44	23	44
	Insulation Grade		F			
	Running Current (Rated)	A	0.43	0.44	0.58	0.75
	Power Consumption (Rated)	W	99	101	133	171
	Motor Output	W	60	60	66	112
	Poles		6	6	6	8
Compressor	Type		ROTARY		TWIN ROTARY	
	Oil type		RM-LP56EG OR EQUIVALENT	RM-LP56EG / RmM68EA	RM-LP56EG / RmM68EA	RM-LP56EG / RmM68EA
	Oil amount	cm^3	450	570	840	880
	Running Current (Rated)	A	6.94	8.76	11.50	13.10
	Power Consumption (Rated)	W	1554	1987	2569	2895
Heat Exchanger Type			FIN TUBE			
Dimensions (H x W x D)		mm	615 x 845 x 300	615 x 845 x 300	695 x 930 x 350	852 x 1030 x 400
Packaged Dimensions (H x W x D)		mm	679 x 992 x 414	679 x 992 x 414	760 x 1084 x 473	995 x 1136 x 516
Weight		kg	40	46	53	62
Drawing No.			S20111002631	S20111002631	S20111002631	S20111002631
Document No. (Set)			S20111002632	S20111002633	S20111002634	S20111002635

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).
2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING
INDOOR: 27°CDB / 19°CWB
OUTDOOR: 35°CDB

MODEL	INDOOR UNIT		FHC125A	FHC140A	FHC160A
	OUTDOOR UNIT		RC125B/A	RC140B/A	RC160B/A
Rated Capacity		kW	12.31	13.48	16.12
		Btu/h	42000	46000	55000
Rated Running Current		A	7.14	7.93	9.62
Rated Power Consumption		W	3860	4300	5500
EER		W/W	3.19	3.14	2.93
CSPF		Wh/Wh	3.39	3.33	3.11
Power Factor (Rated)			0.78	0.78	0.83
Piping Connections	Liquid	mm	9.5	9.5	9.5
	Gas	mm	15.9	15.9	19.1
Refrigerant	Type		R32		
	Charge	kg	2.40	2.90	3.40
Max. Interunit Piping Length		m	50	50	50
Max. Interunit Height Difference		m	30	30	30
INDOOR UNIT			FHC125A	FHC140A	FHC160A
Airflow Rate	High	CFM	1125	1125	1460
	Medium	CFM	1030	1030	1390
	Low	CFM	960	960	1150
Sound Pressure Level (H/M/L)		dBA	52/50/48	52/50/48	55/53/50
Fan	Type		SIROCCO		
	Drive		DIRECT		
Fan Motor	Type		1-PHASE FIXED SPEED		
	Motor Output	W	140	140	80 + 80
	Running Current (Rated)	A	0.82	0.82	1.51
	Power Consumption (Rated)	W	184	184	346
Air Direction Control			MANUAL		
Air Filter			SARANET		
Dimensions (H x W x D)		mm	235 x 1903 x 680	235 x 1903 x 680	285 x 1903 x 680
Packaged Dimensions (H x W x D)		mm	299 x 1986 x 773	299 x 1986 x 773	379 x 2027 x 817
Weight		kg	50	50	60
Condensate Drain Size		mm	19.0	19.0	19.0
OUTDOOR UNIT			RC125B/A	RC140B/A	RC160B/A
Casing Colour			IVORY WHITE		
Airflow Rate	High	CFM	3000	3400	3400
Sound Pressure Level		dBA	58	60	62
Fan	Type		PROPELLER		
	Drive		DIRECT		
Fan Motor	Type		AC		
	Index of protection (IP)		44		
	Insulation Grade		F		
	Running Current (Rated)	A	0.82	1.52	1.52
	Power Consumption (Rated)	W	189	350	350
	Motor Output	W	112	240	240
	Poles		8	6	6
Compressor	Type		TWIN ROTARY	SCROLL	SCROLL
	Oil type		RM-LP56EG / RmM68EA	NXG5020	NXG5020
	Oil amount	cm^3	1600	1242	1242
	Running Current (Rated)	A	6.59	7.15	8.61
	Power Consumption (Rated)	W	3487	3766	4804
Heat Exchanger Type			FIN TUBE		
Dimensions (H x W x D)		mm	852 x 1030 x 400	852 x 1030 x 400	852 x 1030 x 400
Packaged Dimensions (H x W x D)		mm	995 x 1136 x 516	995 x 1136 x 516	995 x 1136 x 516
Weight		kg	79	84	94
Drawing No.			S20111002631	S20111002631	S20111002631
Document No. (Set)			S20111002636	S20111002637	S20211002638

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).
2) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

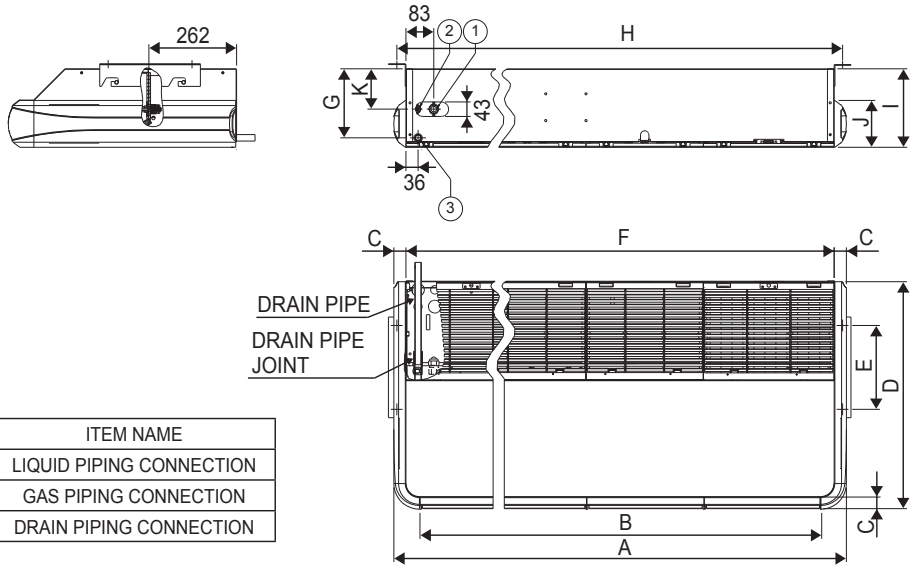
COOLING
INDOOR: 27°CDB / 19°CWB
OUTDOOR: 35°CDB

Dimensions

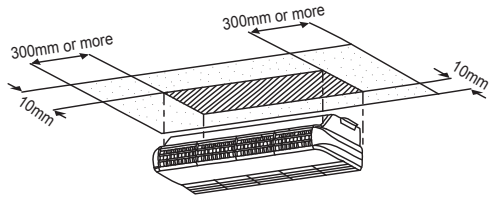
Indoor Unit

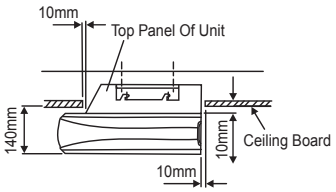
Model : FHC-A

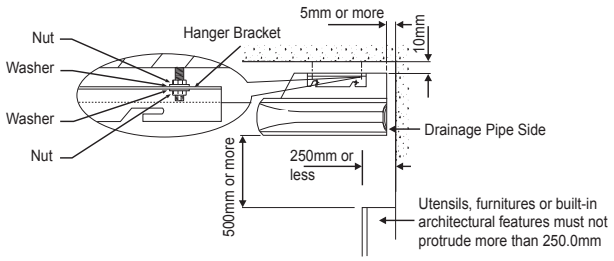
FOR ILLUSTRATIVE PURPOSES ONLY

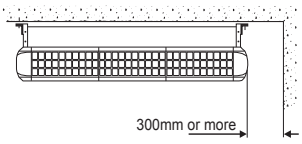


ITEM	ITEM NAME
1	LIQUID PIPING CONNECTION
2	GAS PIPING CONNECTION
3	DRAIN PIPING CONNECTION









Dimension / Model	A	B	C	D	E	F	G	H	I	J	K
50/60	1203	1050	36	680	250	1130	205	1180	235	140	120
85	1553	1400	36	680	250	1480	205	1530	235	140	120
100/125/140	1903	1750	36	680	250	1830	205	1880	235	140	120
160	1903	1750	36	680	250	1830	255	1880	285	140	170

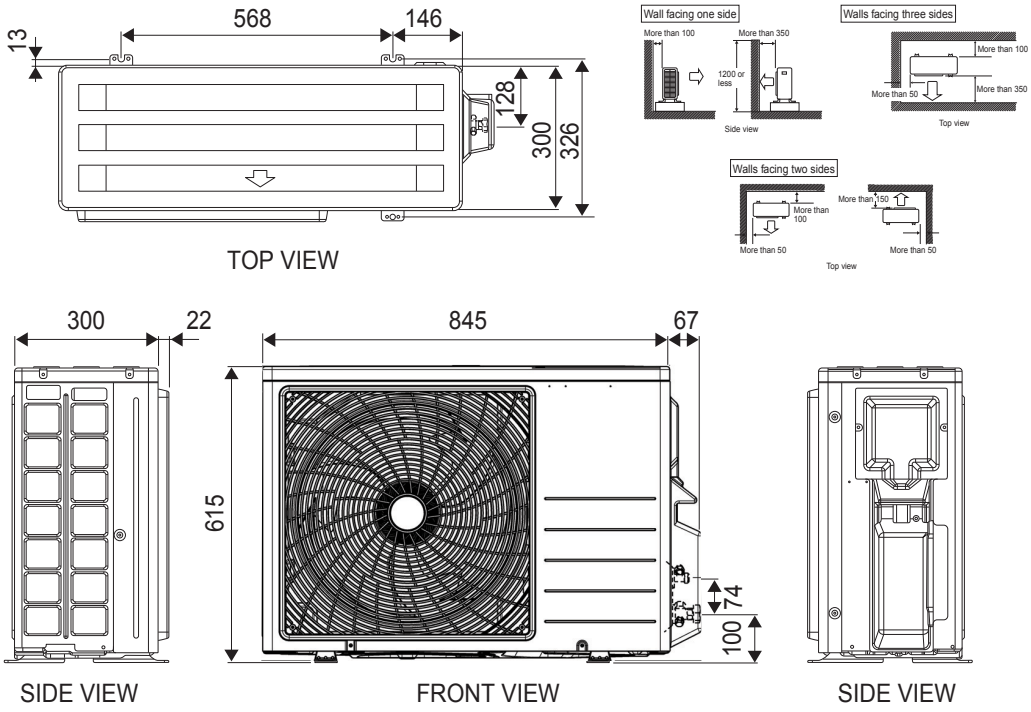
R08019048939

Note: Dimension in mm

Outdoor Unit

Model : RC50/60B/A

FOR ILLUSTRATIVE PURPOSES ONLY

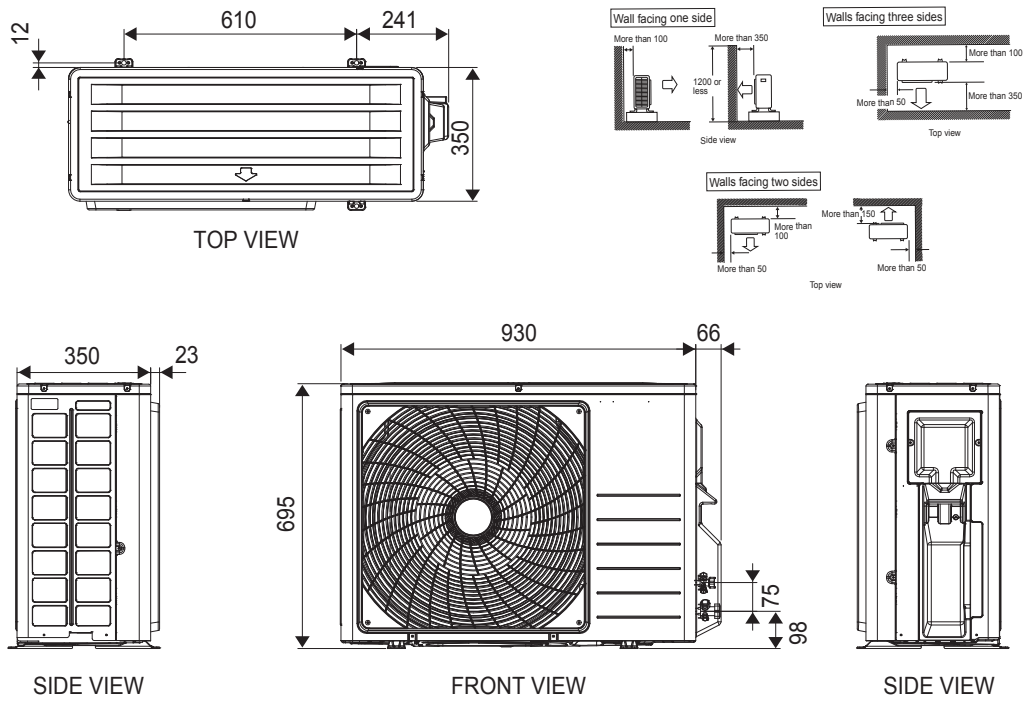


R08019048939

Note: Dimension in mm

Model : RC85B/A

FOR ILLUSTRATIVE PURPOSES ONLY

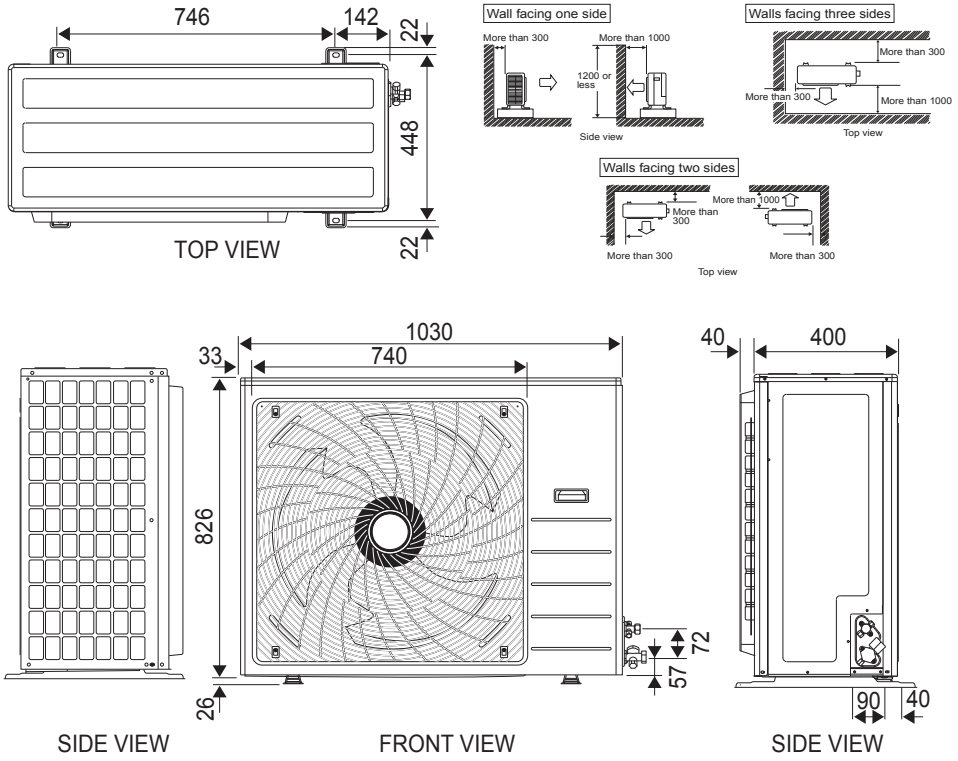


R08019048939

Note: Dimension in mm

Model : RC100/125/140/160B/A

FOR ILLUSTRATIVE PURPOSES ONLY



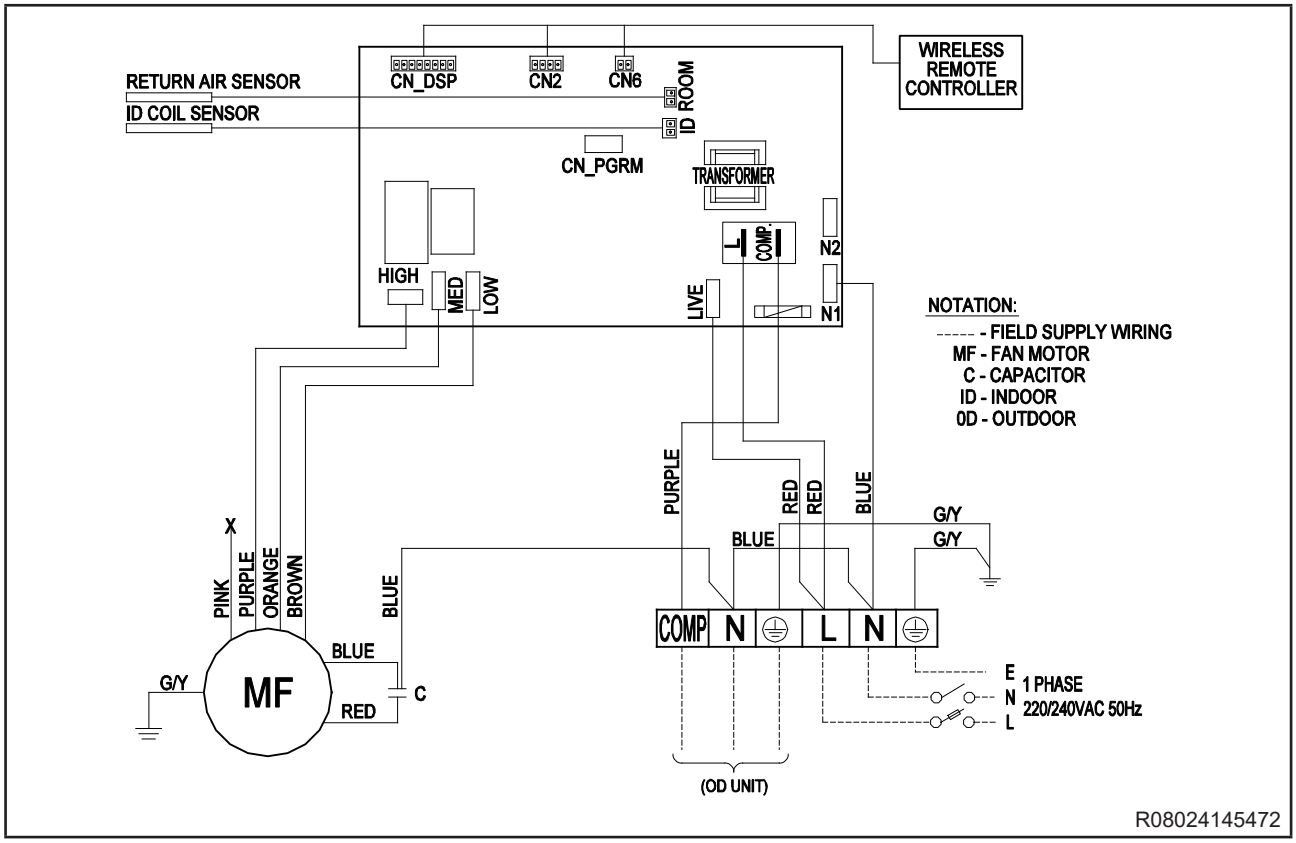
R08019048939

Note: Dimension in mm

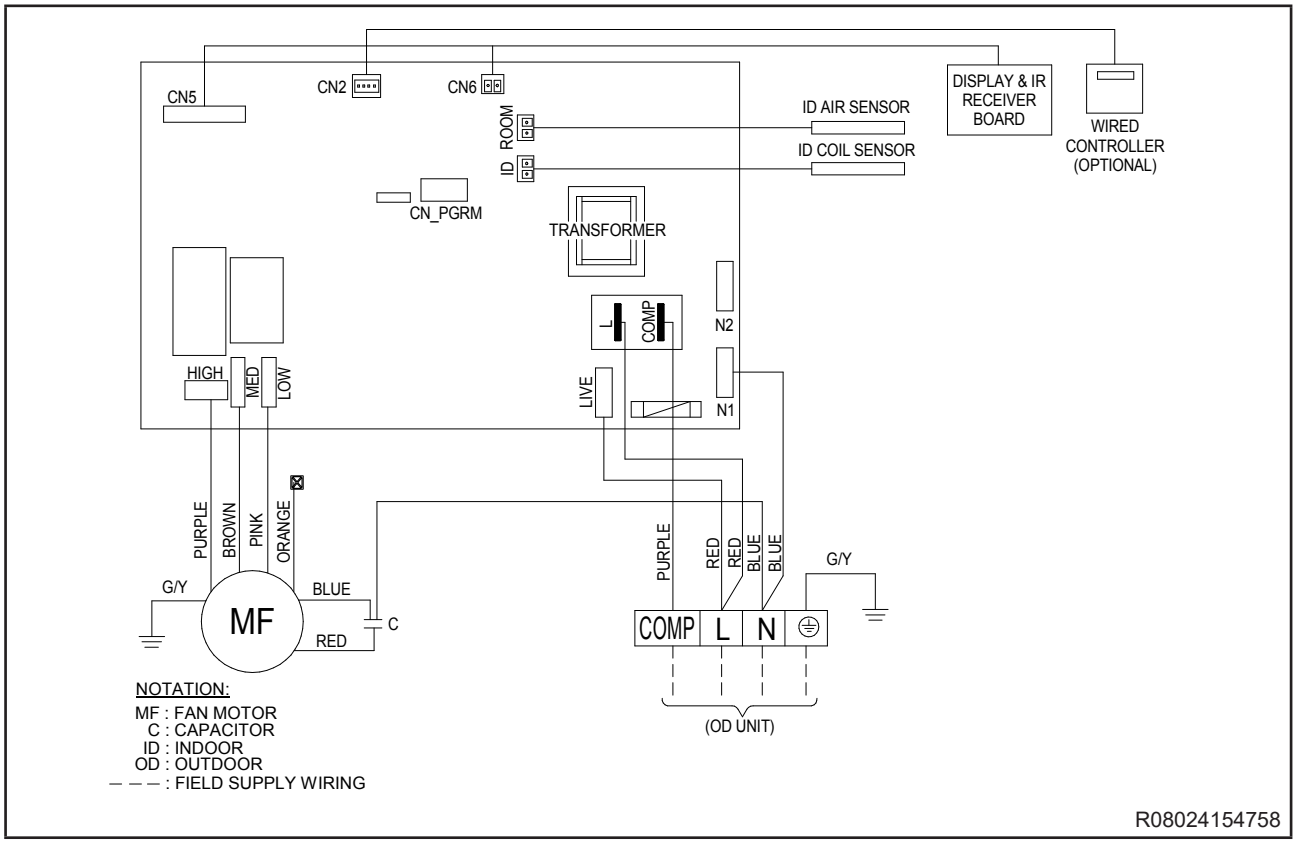
Wiring Diagrams

Indoor Unit

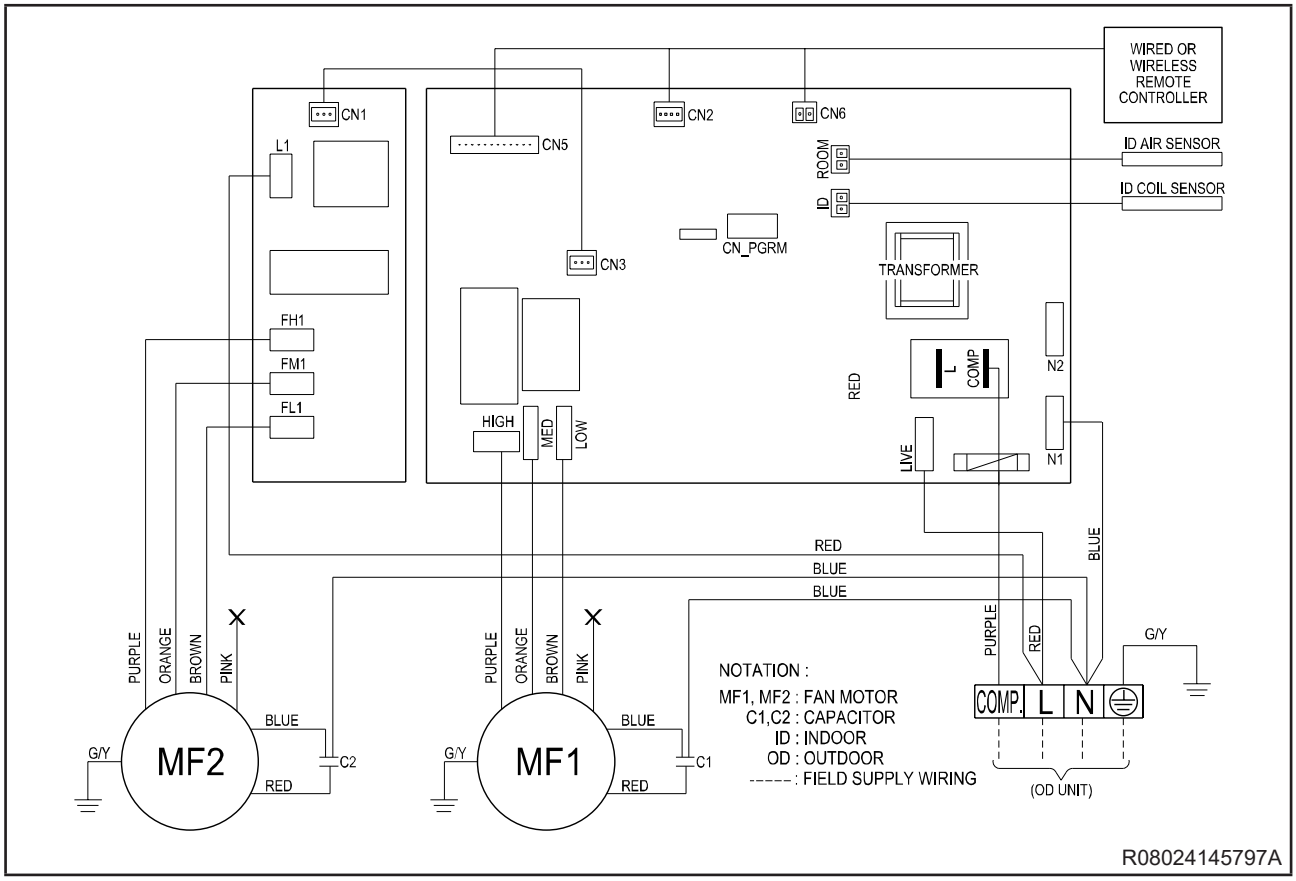
Model : FHC50/60/85A



Model : FHC100/125/140A

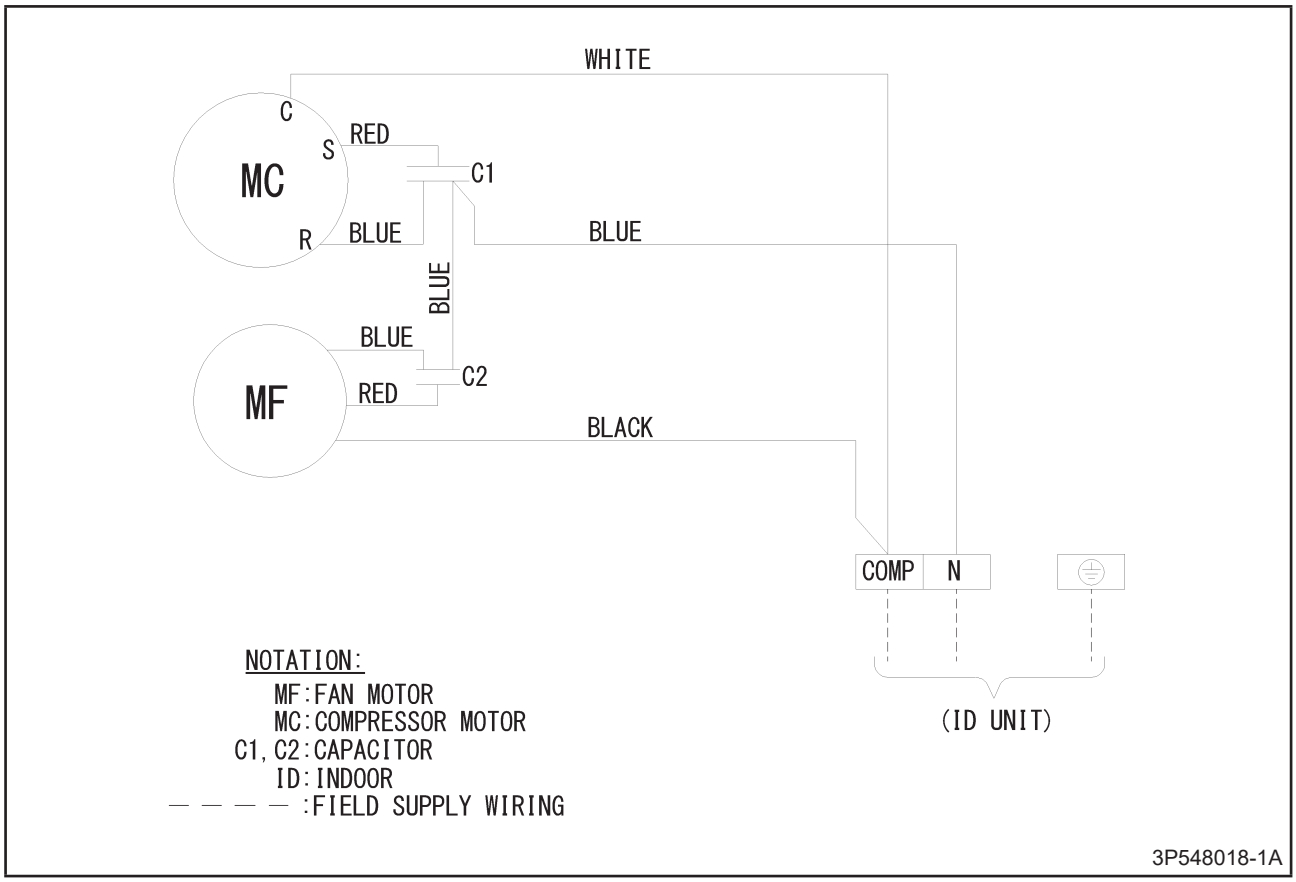


Model : FHC160A

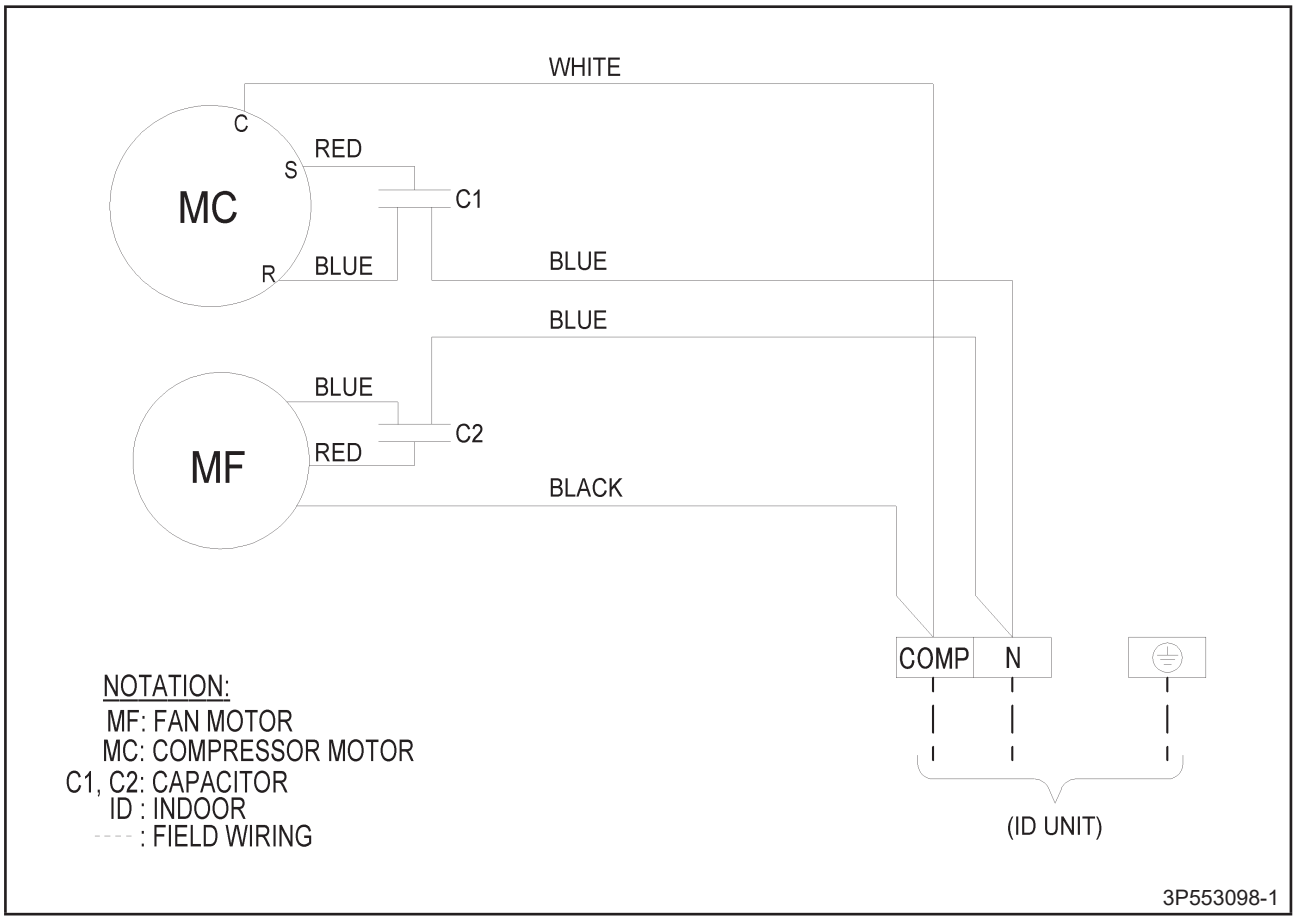


Outdoor Unit

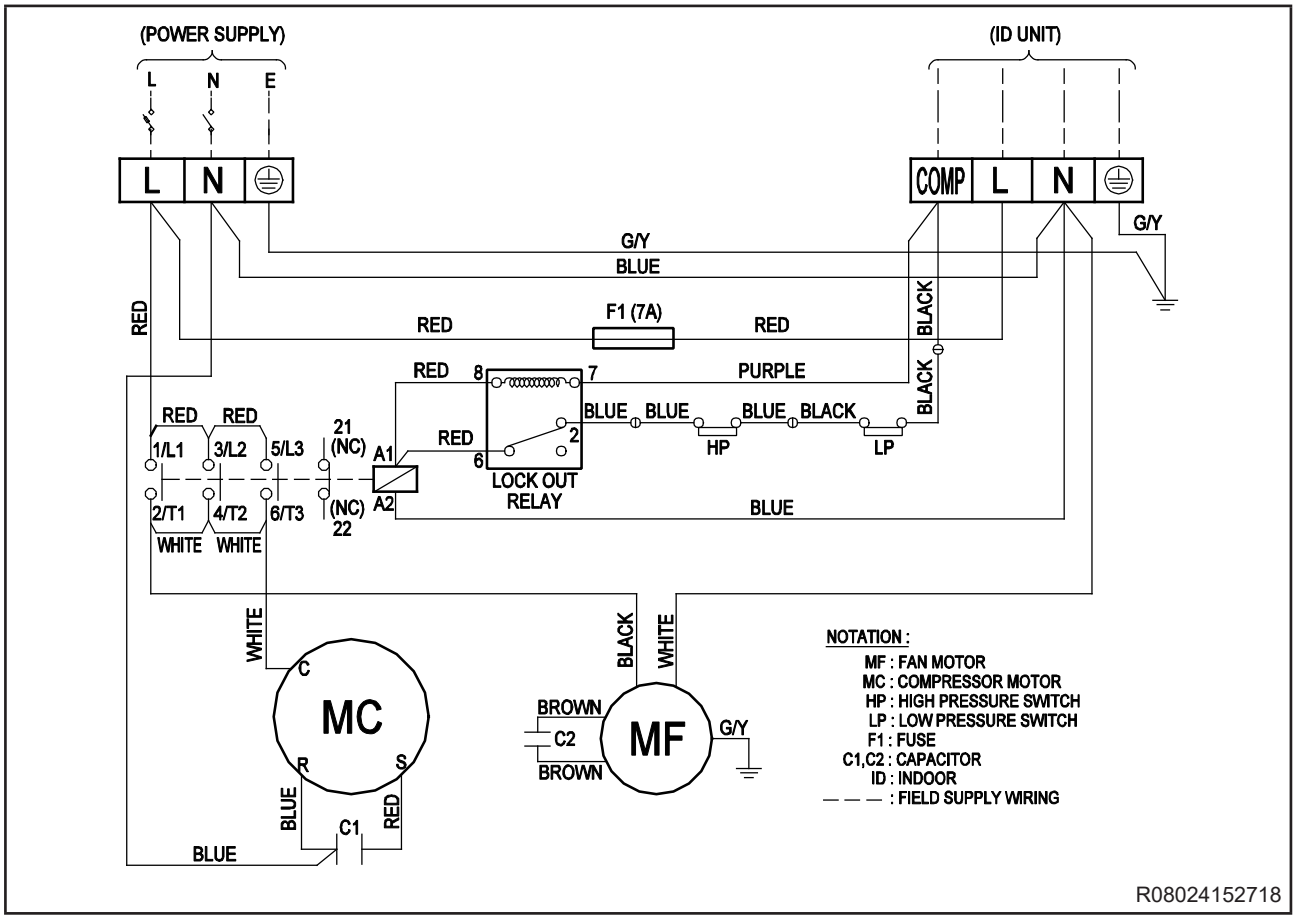
Model : RC50/60B/A



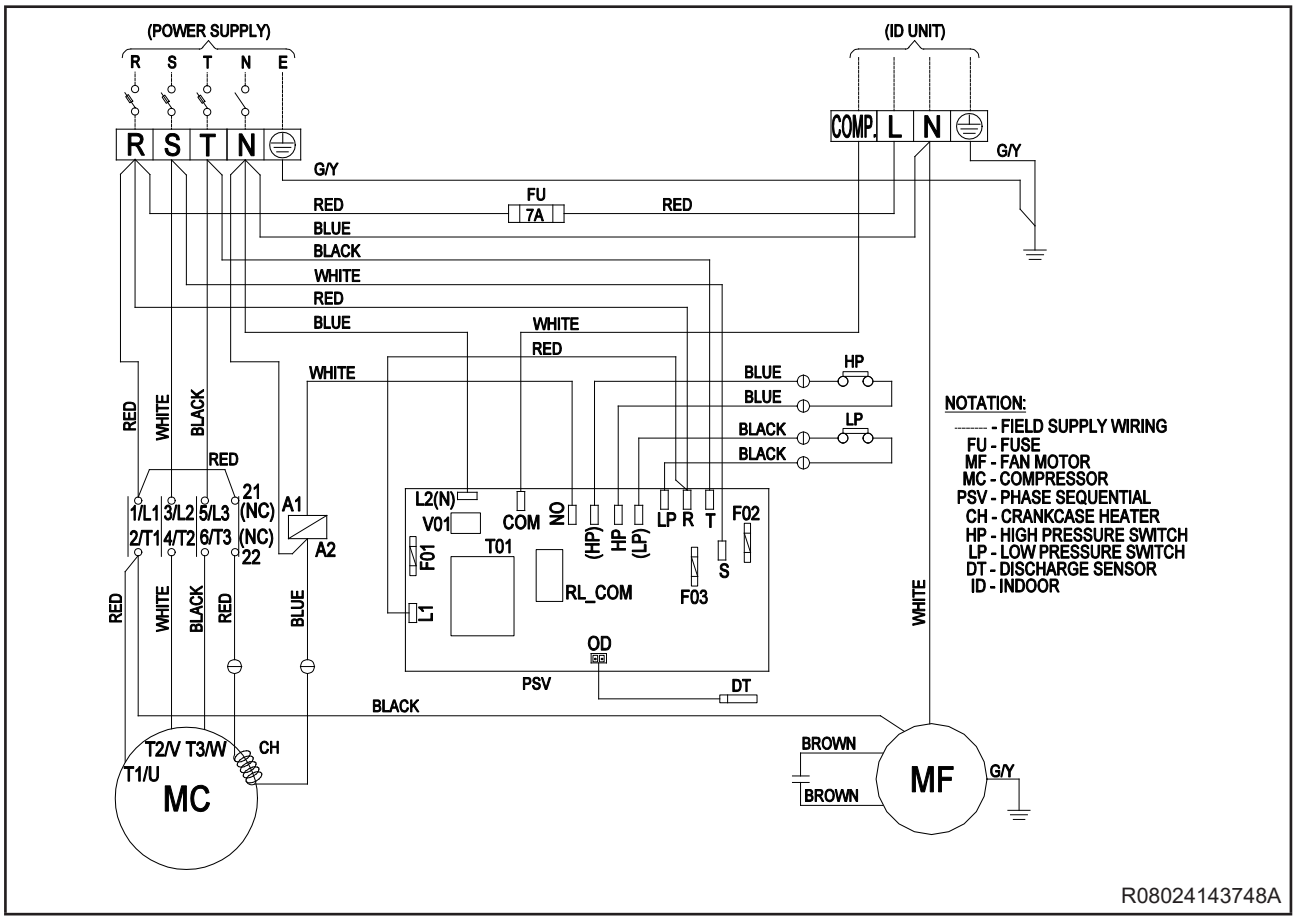
Model : RC85B/A



Model : RC100B/A



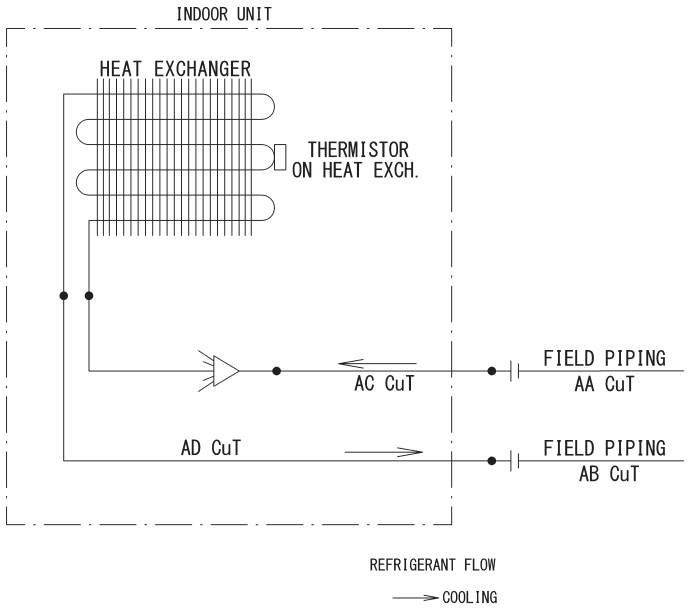
Model : RC125/140/160B/A



Piping Diagrams

Indoor Unit

Model : FHC-A



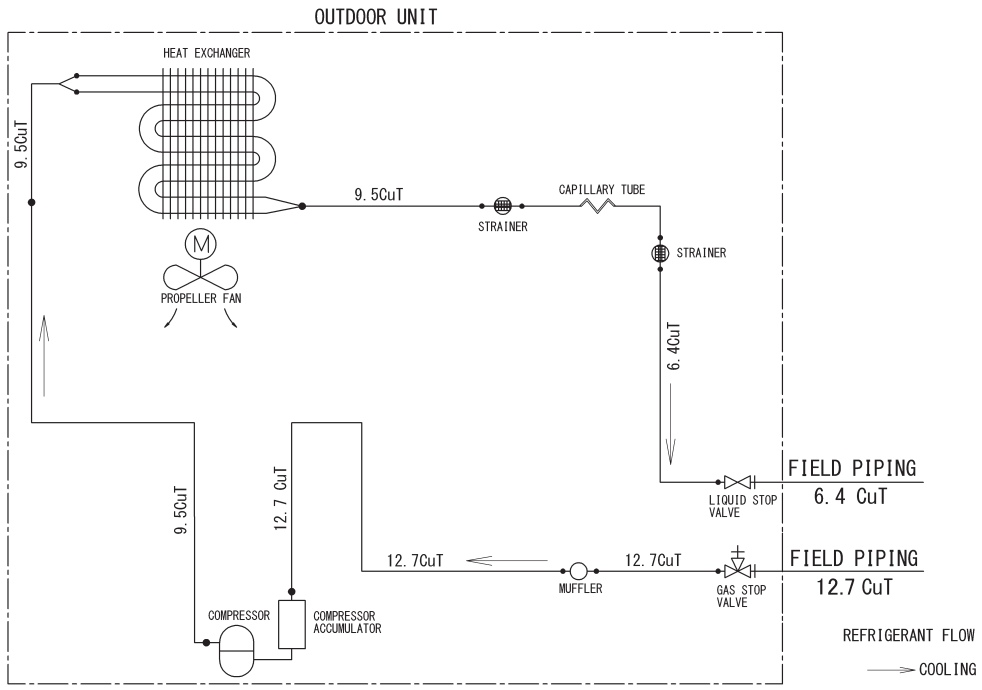
MODEL	AA	AB	AC	AD
FHC 50·60 AV1M	6.4	12.7	6.4	15.9
FHC 85 AV1M	9.5	15.9	9.5	15.9
FHC 100·125·140 AV1M	9.5	15.9	9.5	19.1
FHC 160 AV1M	9.5	19.1	9.5	19.1

R70034155185

Note: Dimension in mm

Outdoor Unit

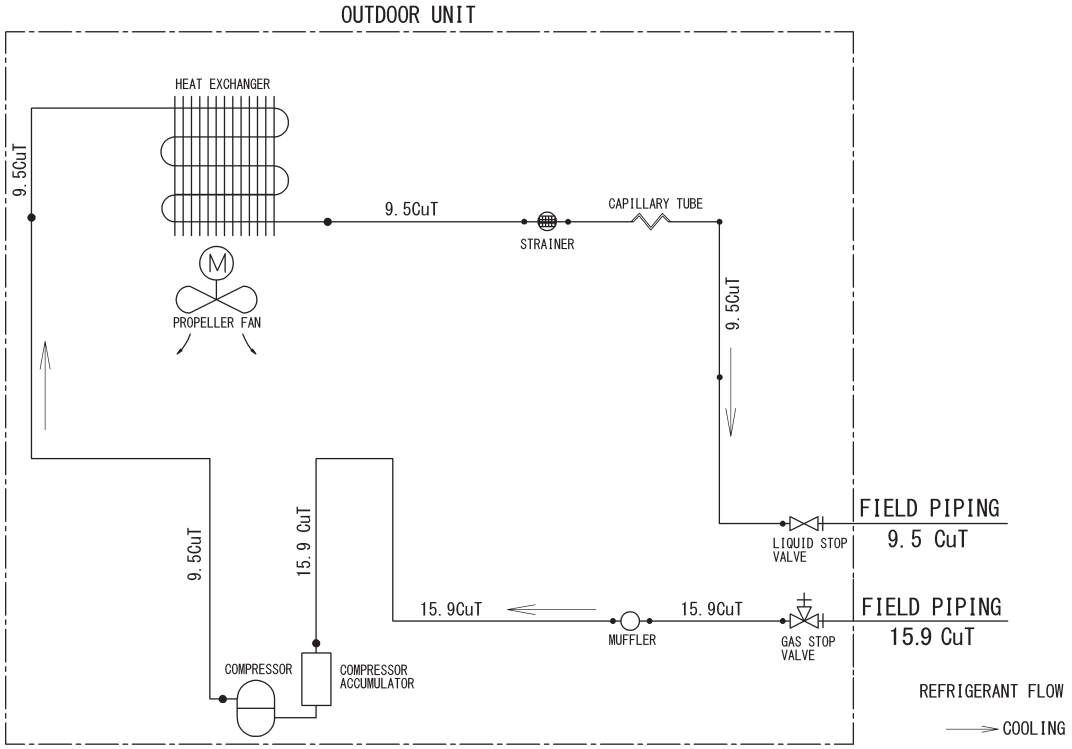
Model : RC50/60B/A



3D121521

Note: Dimension in mm

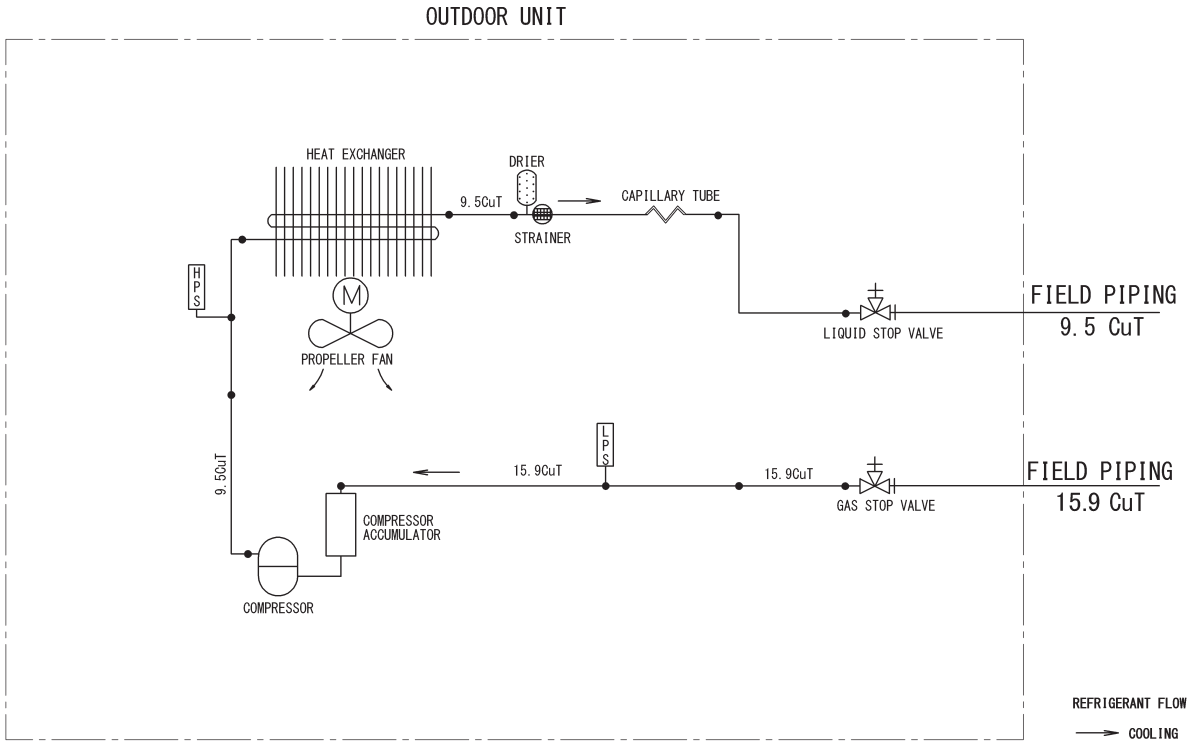
Model : RC85B/A



3D121531

Note: Dimension in mm

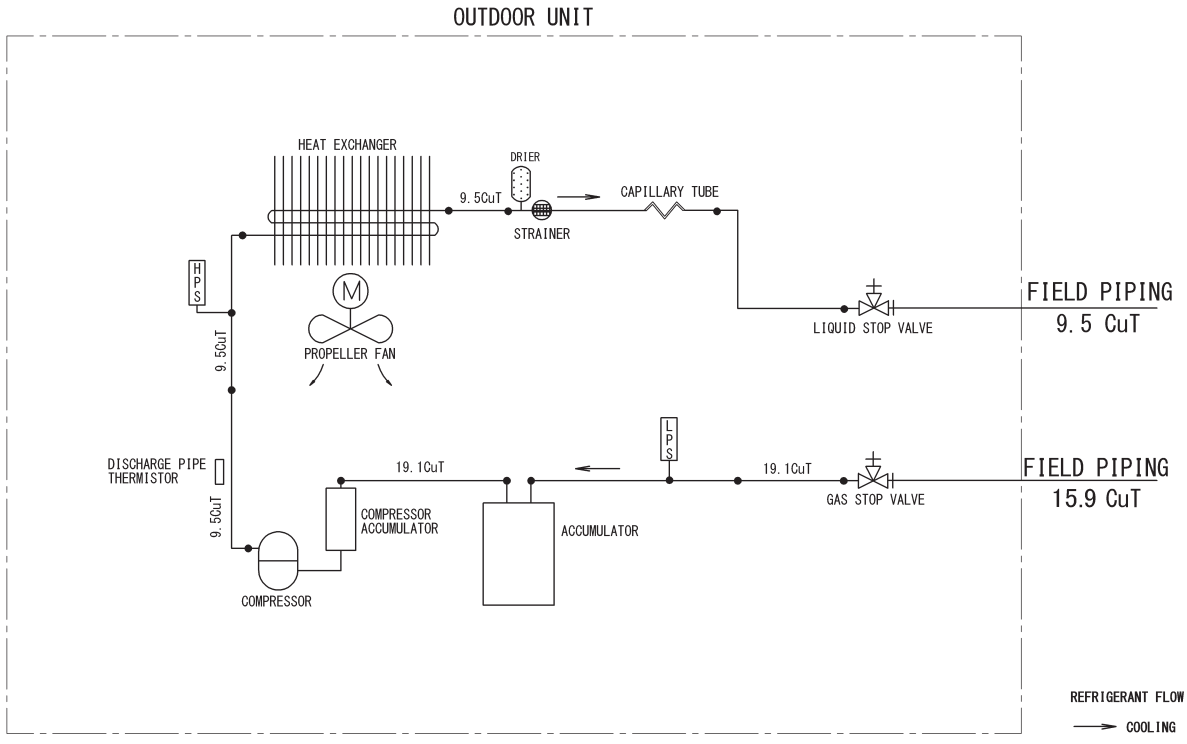
Model : RC100B/A



3D121518A

Note: Dimension in mm

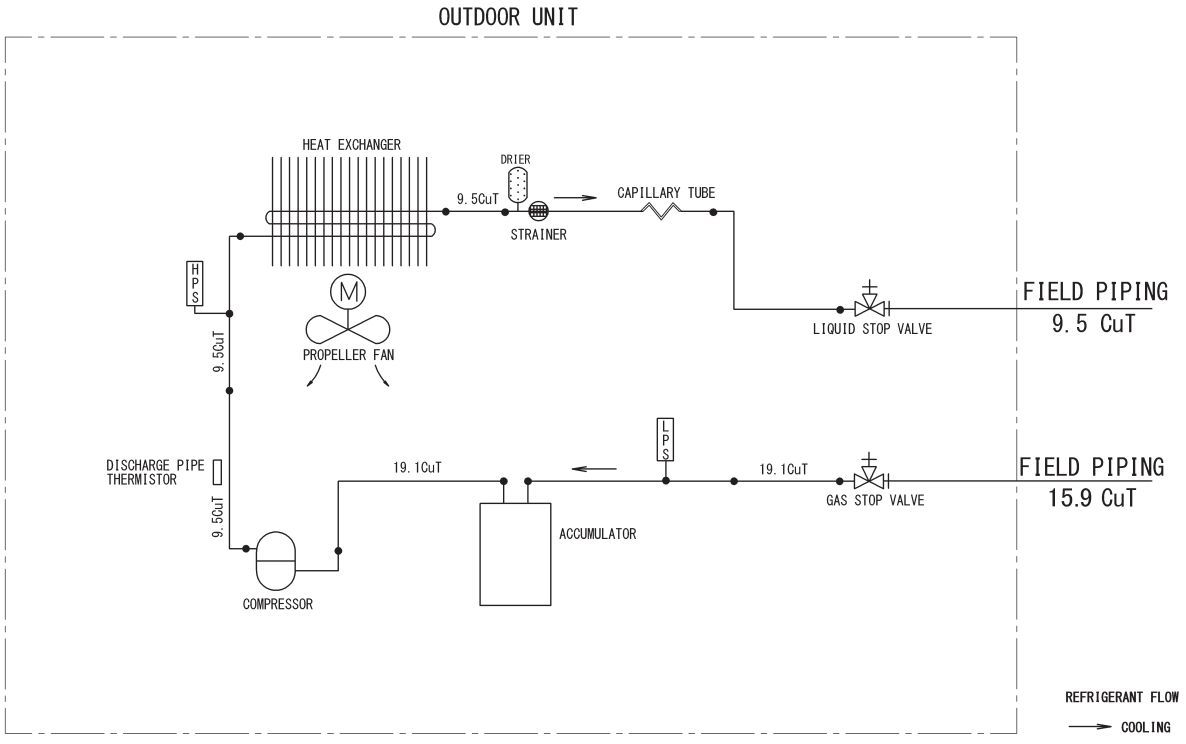
Model : RC125B/A



3D121519

Note: Dimension in mm

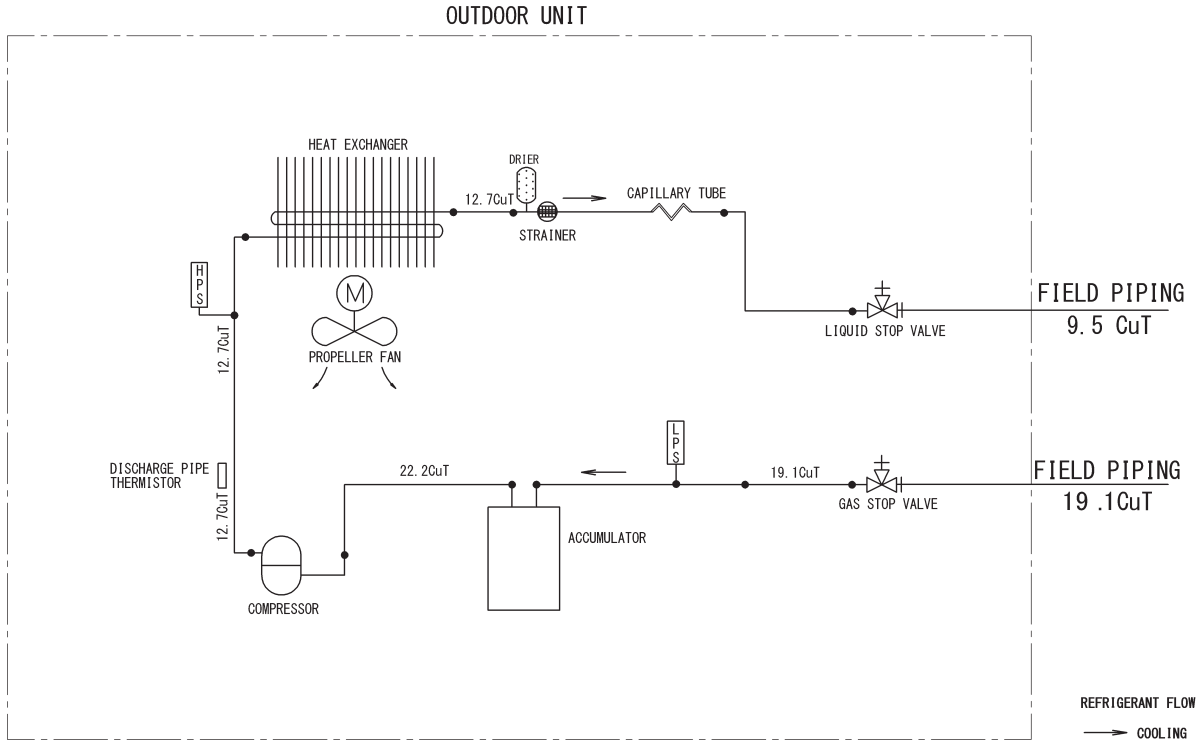
Model : RC140B/A



3D121520

Note: Dimension in mm

Model : RC160B/A



Note: Dimension in mm

Capacity Tables

Model : FHC50A - RC50B/A

AFR	17.56
BPF	0.19

Cooling: 220 - 240V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	5.55	4.20	1.37	5.30	4.07	1.50	5.04	3.94	1.63	4.95	3.89	1.68	4.79	3.82	1.77	4.54	3.70	1.90
16	22	5.81	4.12	1.38	5.55	4.00	1.51	5.29	3.88	1.64	5.20	3.84	1.70	5.04	3.76	1.77	4.79	3.65	1.91
18	25	6.06	4.31	1.38	5.81	4.20	1.52	5.55	4.09	1.65	5.45	4.05	1.70	5.29	3.98	1.79	5.04	3.88	1.91
19	27	6.18	4.54	1.38	5.93	4.44	1.52	5.67	4.33	1.65	5.57	4.29	1.70	5.42	4.23	1.79	5.17	4.13	1.93
22	30	6.55	4.38	1.40	6.30	4.29	1.53	6.05	4.20	1.66	5.95	4.16	1.72	5.79	4.10	1.80	5.55	4.02	1.93

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155716

Model : FHC60A - RC60B/A

AFR	17.56
BPF	0.24

Cooling: 220 - 240V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	7.06	4.94	1.70	6.73	4.75	1.86	6.41	4.58	2.03	6.29	4.51	2.09	6.10	4.41	2.20	5.77	4.23	2.36
16	22	7.38	4.84	1.71	7.06	4.67	1.87	6.72	4.50	2.04	6.61	4.44	2.11	6.41	4.34	2.20	6.10	4.18	2.37
18	25	7.70	5.00	1.72	7.38	4.84	1.89	7.06	4.68	2.05	6.93	4.62	2.11	6.72	4.53	2.22	6.41	4.38	2.38
19	27	7.85	5.20	1.72	7.53	5.05	1.89	7.21	4.90	2.05	7.08	4.84	2.11	6.89	4.75	2.22	6.57	4.61	2.40
22	30	8.33	4.99	1.74	8.01	4.86	1.91	7.68	4.72	2.07	7.56	4.67	2.13	7.36	4.60	2.24	7.06	4.47	2.40

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155717

Model : FHC85A - RC85B/A

AFR	23.51
BPF	0.17

Cooling: 220 - 240V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	8.86	6.40	2.19	8.45	6.19	2.40	8.05	5.98	2.61	7.89	5.90	2.69	7.65	5.77	2.84	7.24	5.57	3.04
16	22	9.27	6.28	2.21	8.86	6.08	2.41	8.44	5.88	2.63	8.30	5.81	2.72	8.05	5.69	2.84	7.65	5.50	3.06
18	25	9.67	6.53	2.22	9.27	6.34	2.44	8.86	6.16	2.64	8.70	6.09	2.72	8.44	5.97	2.86	8.04	5.80	3.07
19	27	9.86	6.83	2.22	9.46	6.66	2.44	9.05	6.48	2.64	8.89	6.41	2.72	8.65	6.31	2.86	8.25	6.14	3.09
22	30	10.46	6.58	2.24	10.06	6.42	2.46	9.65	6.26	2.66	9.49	6.20	2.75	9.24	6.11	2.88	8.86	5.96	3.10

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155718

Model : FHC100A - RC100B/A

AFR	31.87
BPF	0.23

Cooling: 220 - 240V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	10.81	7.89	2.49	10.31	7.63	2.73	9.82	7.38	2.96	9.63	7.28	3.06	9.33	7.13	3.22	8.83	6.88	3.46
16	22	11.31	7.74	2.51	10.80	7.50	2.74	10.30	7.25	2.99	10.12	7.17	3.09	9.82	7.03	3.22	9.33	6.80	3.47
18	25	11.79	8.06	2.52	11.31	7.84	2.77	10.80	7.62	3.00	10.61	7.53	3.10	10.30	7.39	3.25	9.81	7.18	3.48
19	27	12.02	8.45	2.52	11.54	8.24	2.77	11.03	8.02	3.00	10.84	7.94	3.10	10.55	7.81	3.25	10.07	7.61	3.51
22	30	12.75	8.14	2.55	12.27	7.95	2.79	11.77	7.76	3.03	11.57	7.69	3.12	11.27	7.57	3.28	10.80	7.40	3.52

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155719

Model : FHC125A - RC125B/A

AFR	31.87
BPF	0.21

Cooling: 380-415V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	12.62	8.90	2.95	12.03	8.58	3.24	11.46	8.27	3.52	11.23	8.15	3.64	10.89	7.97	3.83	10.31	7.66	4.10
16	22	13.19	8.72	2.98	12.61	8.42	3.26	12.01	8.12	3.55	11.81	8.02	3.67	11.46	7.85	3.83	10.89	7.57	4.12
18	25	13.76	9.02	2.99	13.19	8.75	3.29	12.61	8.48	3.56	12.38	8.37	3.68	12.01	8.20	3.86	11.45	7.95	4.14
19	27	14.03	9.40	2.99	13.46	9.14	3.29	12.88	8.88	3.56	12.65	8.77	3.68	12.31	8.62	3.86	11.74	8.38	4.17
22	30	14.88	9.04	3.03	14.31	8.81	3.32	13.73	8.57	3.60	13.51	8.48	3.71	13.16	8.34	3.89	12.61	8.13	4.18

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155720

Model : FHC140A - RC140B/A

AFR	31.87
BPF	0.21

Cooling: 380-415V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	13.81	9.58	3.29	13.17	9.22	3.61	12.55	8.87	3.92	12.30	8.73	4.05	11.93	8.53	4.26	11.29	8.19	4.57
16	22	14.44	9.40	3.32	13.80	9.06	3.63	13.16	8.72	3.96	12.93	8.60	4.09	12.55	8.41	4.26	11.93	8.09	4.59
18	25	15.06	9.68	3.33	14.44	9.37	3.67	13.80	9.06	3.97	13.56	8.94	4.10	13.16	8.75	4.30	12.54	8.46	4.61
19	27	15.36	10.05	3.33	14.74	9.75	3.67	14.10	9.45	3.97	13.85	9.34	4.10	13.48	9.17	4.30	12.86	8.89	4.64
22	30	16.29	9.65	3.37	15.67	9.39	3.70	15.03	9.12	4.01	14.79	9.02	4.13	14.41	8.86	4.34	13.80	8.62	4.66

Symbols

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

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 :7.5m
Level difference :0.0m

R70034155721

Model : FHC160A - RC160B/A

AFR	41.36
BPF	0.24

Cooling: 380-415V 50Hz

Indoor Temperature		Outdoor temperature [°C DB]																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14	20	16.52	11.55	4.21	15.75	11.12	4.62	15.00	10.71	5.02	14.71	10.55	5.18	14.26	10.31	5.45	13.50	9.90	5.85
16	22	17.27	11.32	4.24	16.51	10.92	4.64	15.73	10.52	5.07	15.46	10.39	5.23	15.00	10.16	5.45	14.26	9.79	5.88
18	25	18.01	11.69	4.26	17.27	11.33	4.69	16.51	10.96	5.08	16.21	10.82	5.24	15.73	10.59	5.50	14.99	10.25	5.90
19	27	18.37	12.16	4.26	17.63	11.81	4.69	16.86	11.45	5.08	16.57	11.32	5.24	16.12	11.12	5.50	15.38	10.79	5.93
22	30	19.49	11.68	4.31	18.74	11.37	4.73	17.98	11.05	5.12	17.68	10.94	5.29	17.23	10.75	5.55	16.51	10.47	5.96

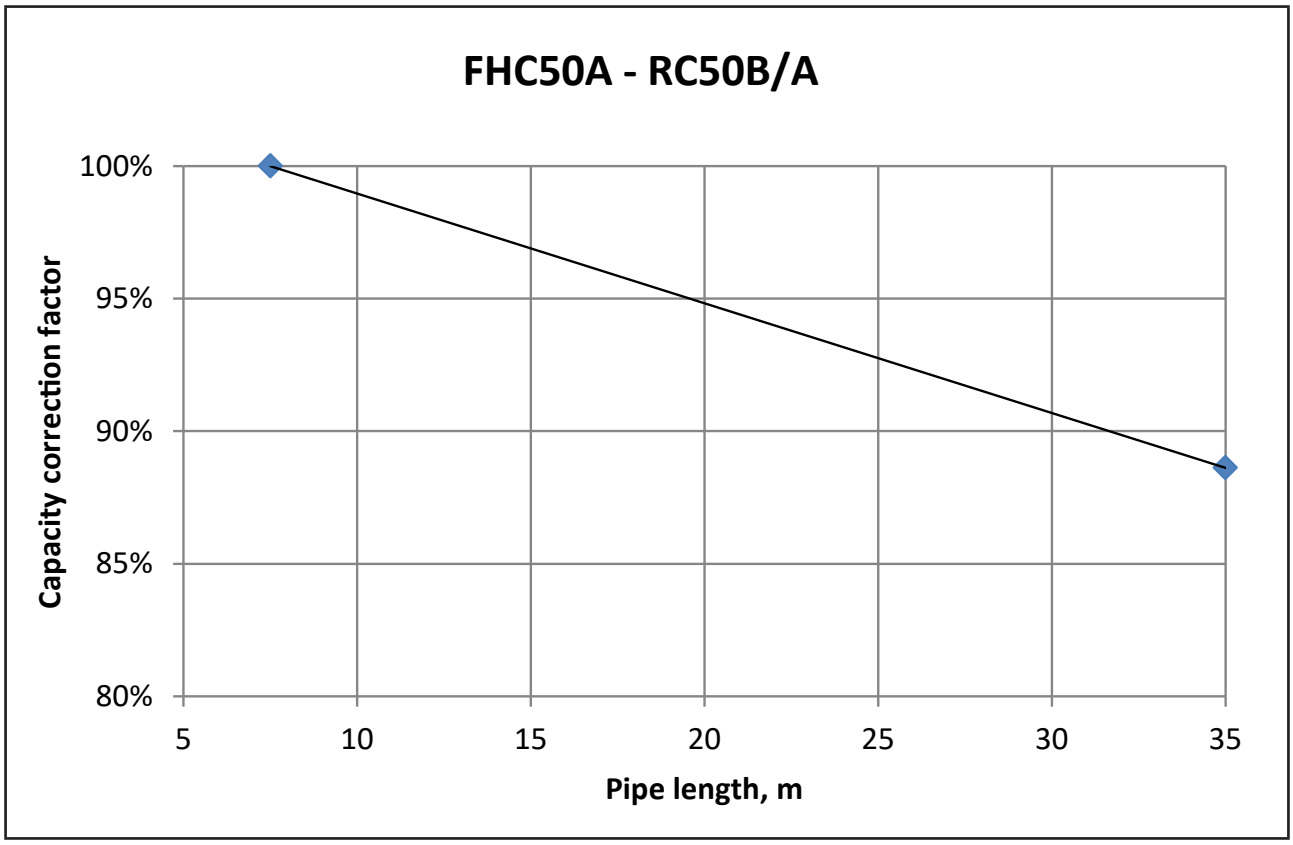
Symbols

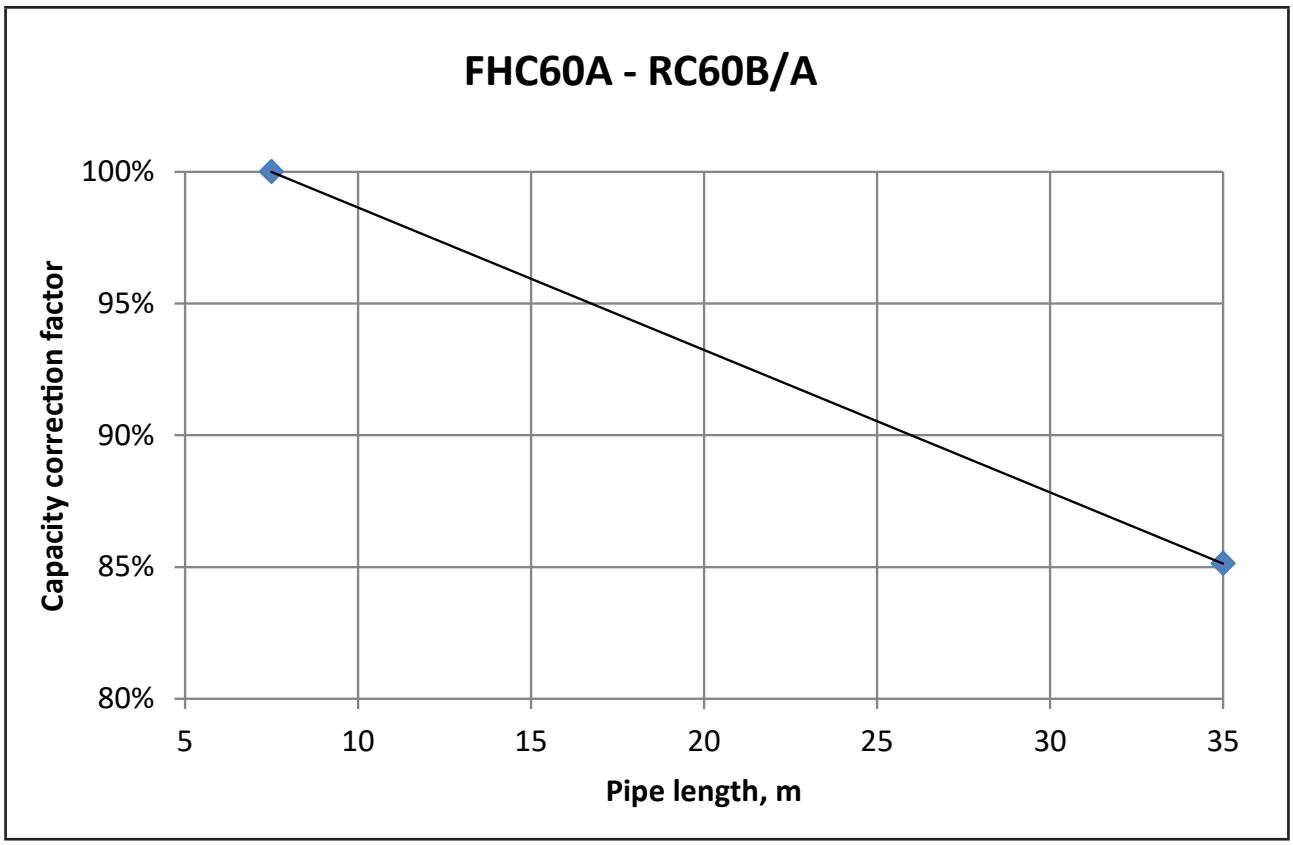
AFR	Air Flow rate	(m3/min)
BPF	Bypass factor	
EWB	Entering Wet Bulb	(°C)
EDB	Entering Dry Bulb	(°C)
TC	Total Capacity	(kW)
SHC	Sensible Heat Capacity	(kW)
PI	Power Input	(kW)

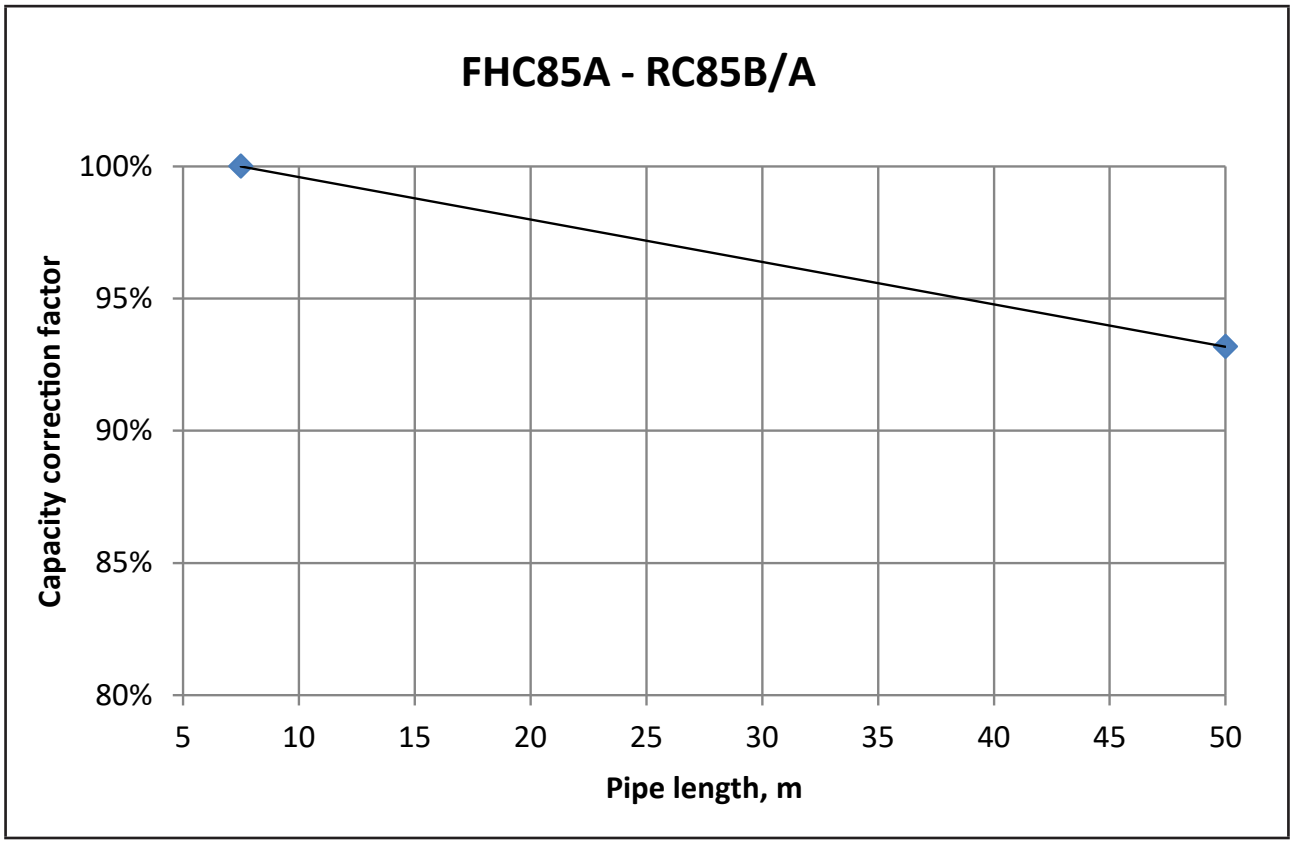
1 Shows nominal(rated) capacities and power input
2 TC, SHC and PI must be calculated by interpolation using the figures in the above table
3 Capacities are based on the following condition
Corresponding refrigerant piping length :7.5m
Level difference :0.0m

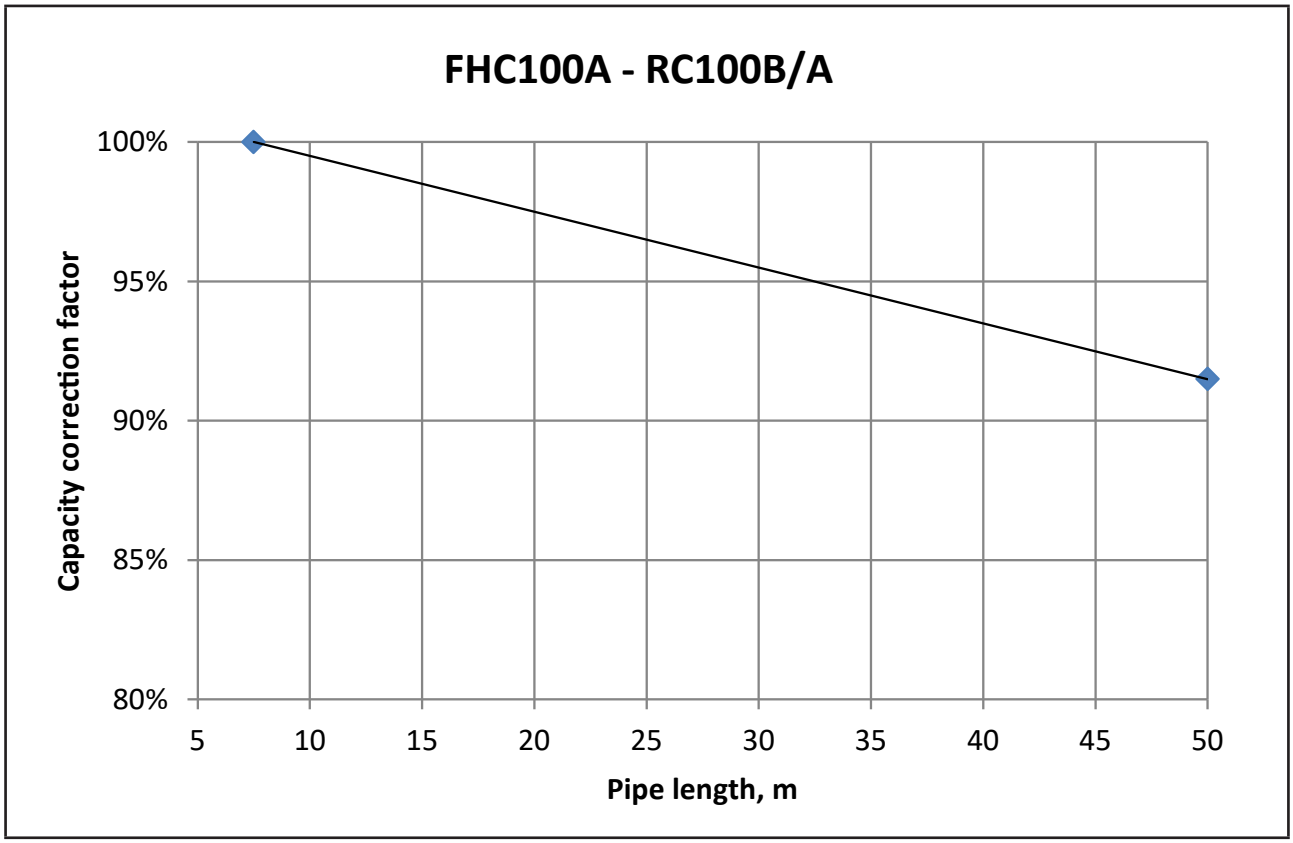
R70034155722

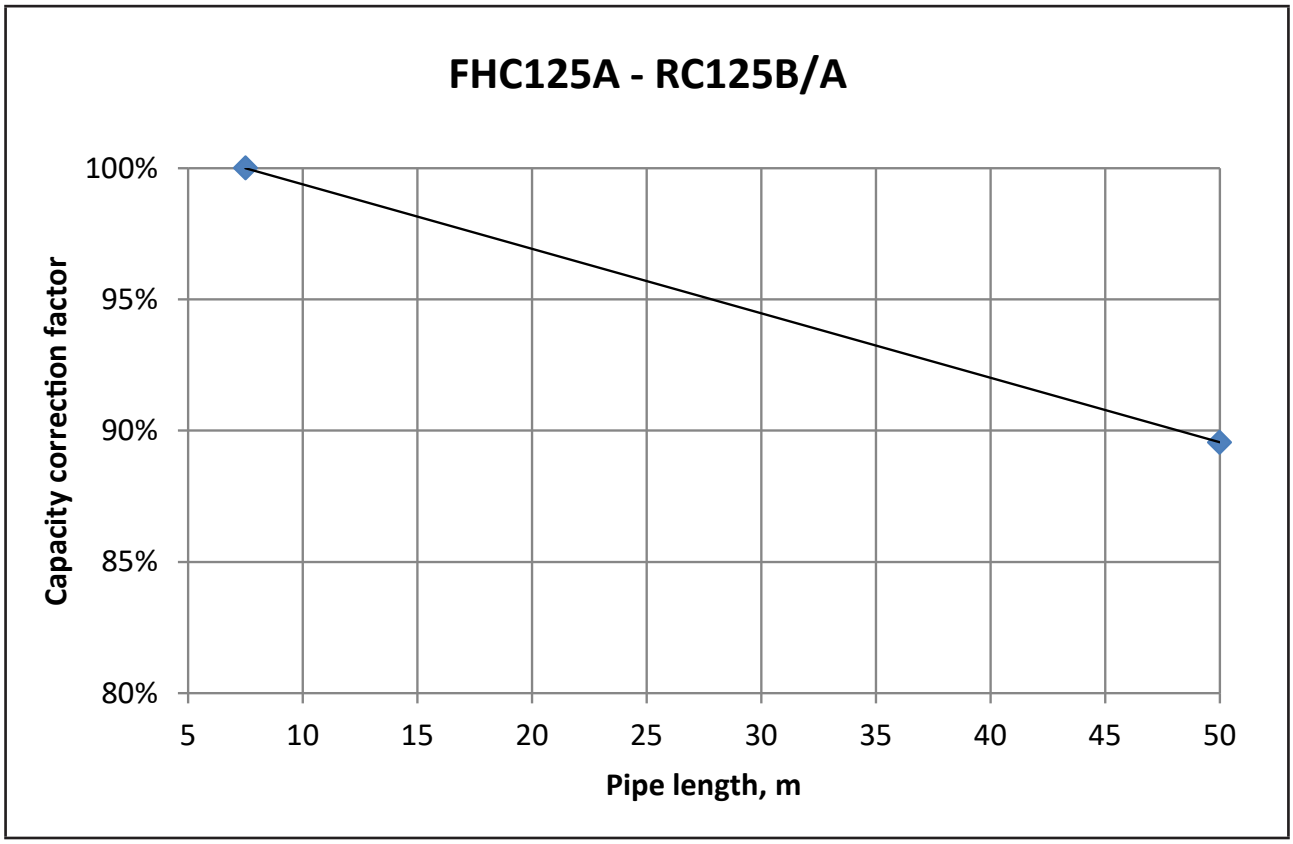
Capacity correction factor by the length of refrigerant piping.

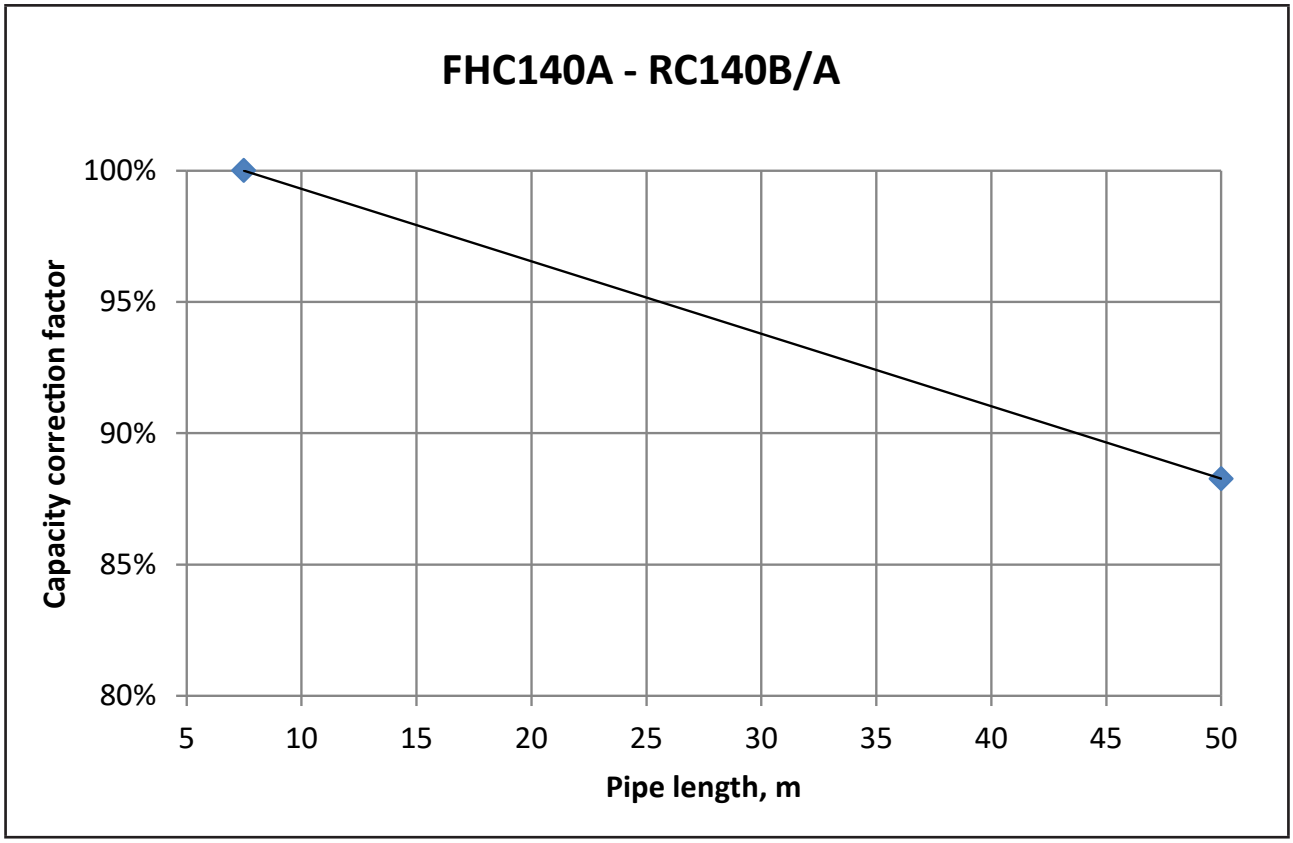


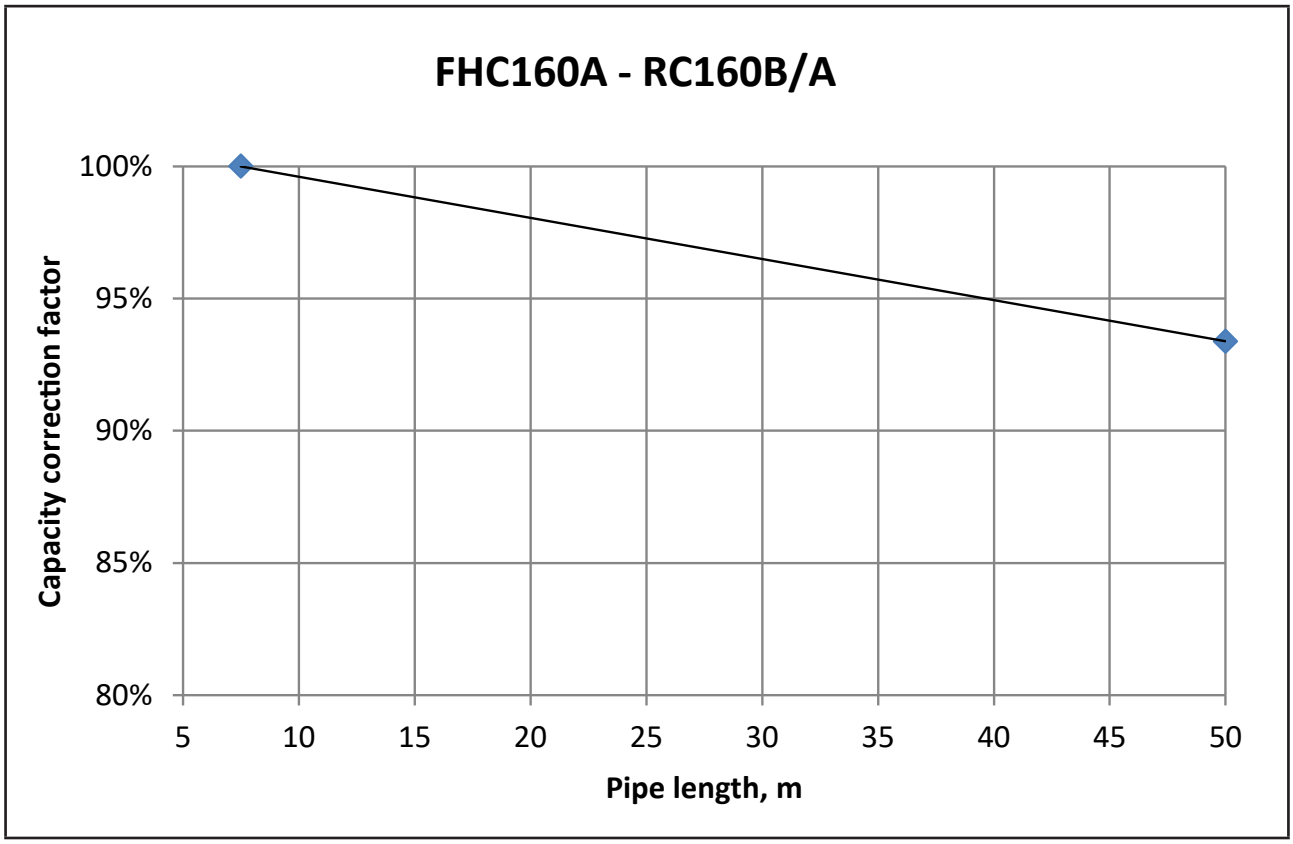



FHC85A - RC85B/A
Capacity correction factor
100%
95%
90%
85%
80%
5
10
15
20
25
30
35
40
45
50
Pipe length, m


FHC100A - RC100B/A
Capacity correction factor
100%
95%
90%
85%
80%
5
10
15
20
25
30
35
40
45
50
Pipe length, m


FHC125A - RC125B/A
Capacity correction factor
100%
95%
90%
85%
80%
5
10
15
20
25
30
35
40
45
50
Pipe length, m


FHC140A - RC140B/A
Capacity correction factor
100%
95%
90%
85%
80%
5
10
15
20
25
30
35
40
45
50
Pipe length, m

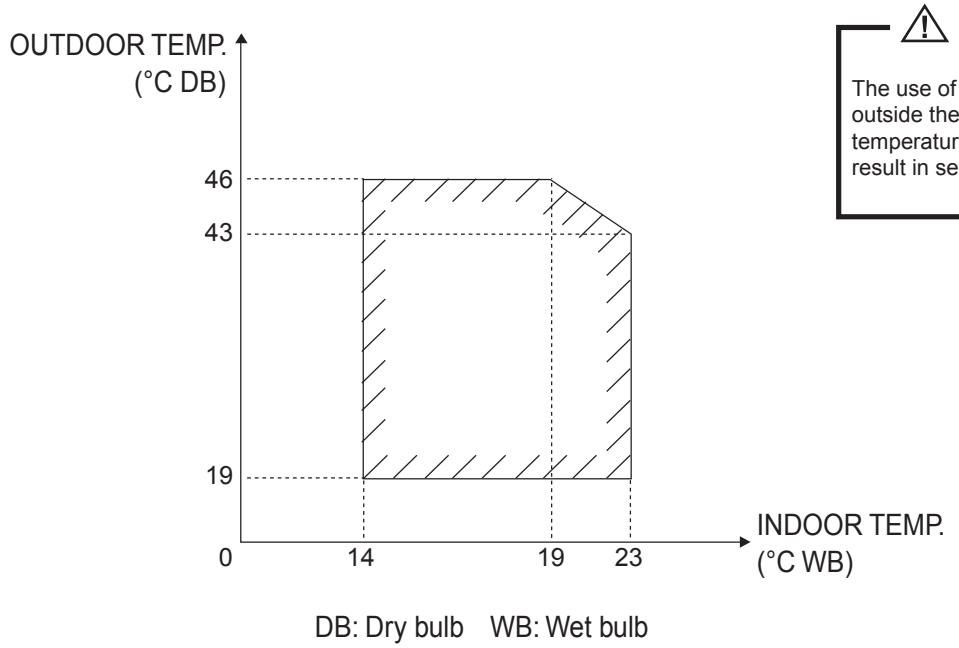


Notes:

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 : RC-B/A



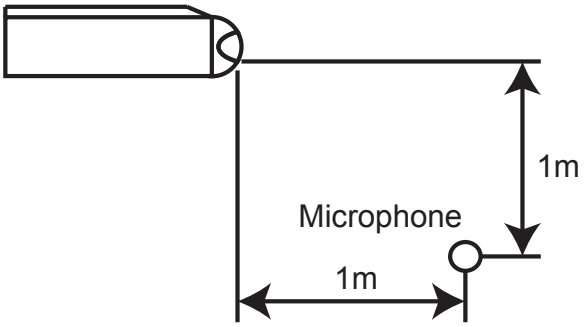
⚠ Caution :

The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

R08019048939

Sound Level

Measuring Location

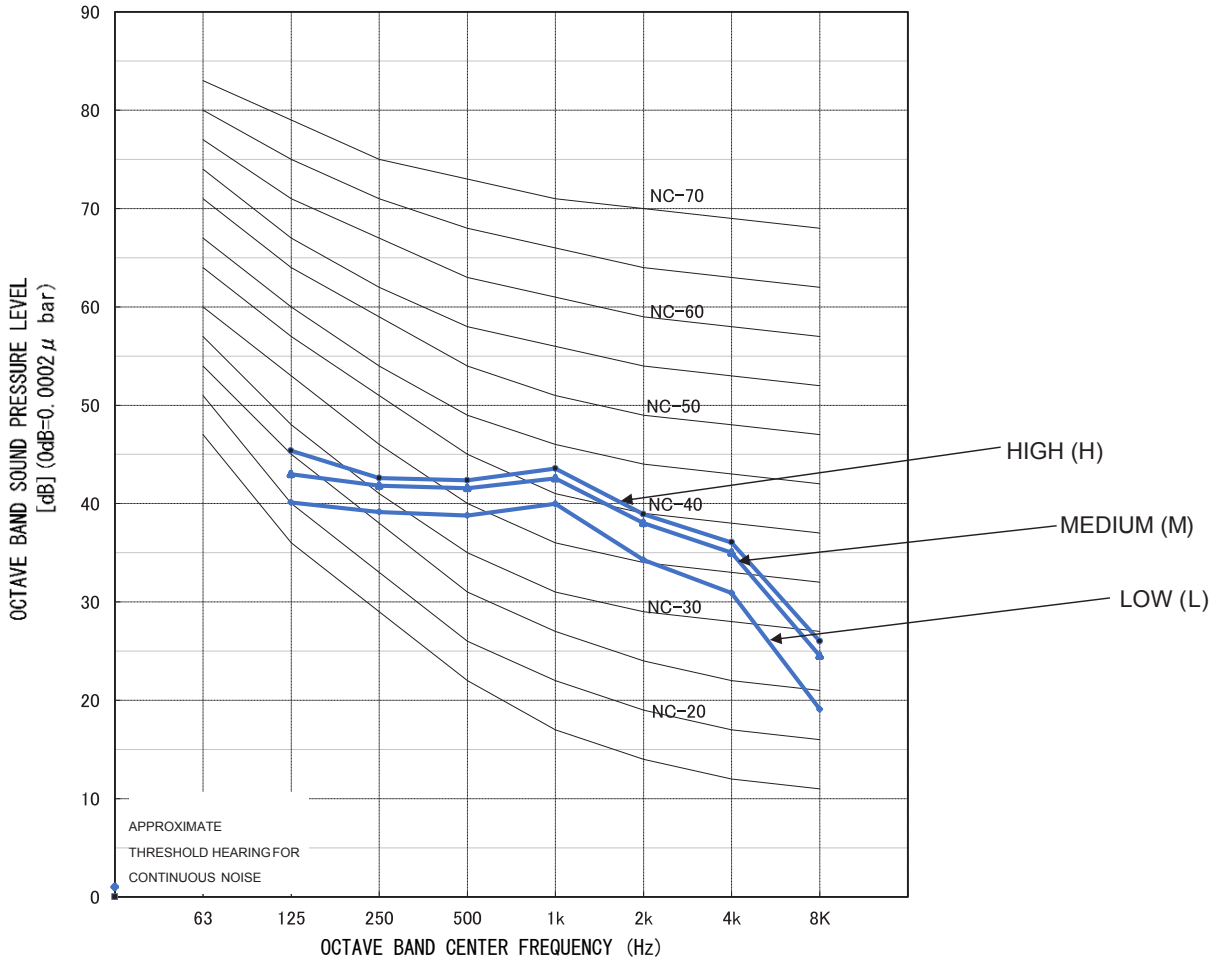
Model	Measuring Location
FHC50A **FHC60A** **FHC85A** **FHC100A** **FHC125A** **FHC140A** **FHC160A**	

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

Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FHC50A FHC60A	High	45	43	42	44	39	36	26	47	43
	Med	43	42	42	43	38	35	25	46	42
	Low	40	39	39	40	34	31	19	43	39

NC Curve

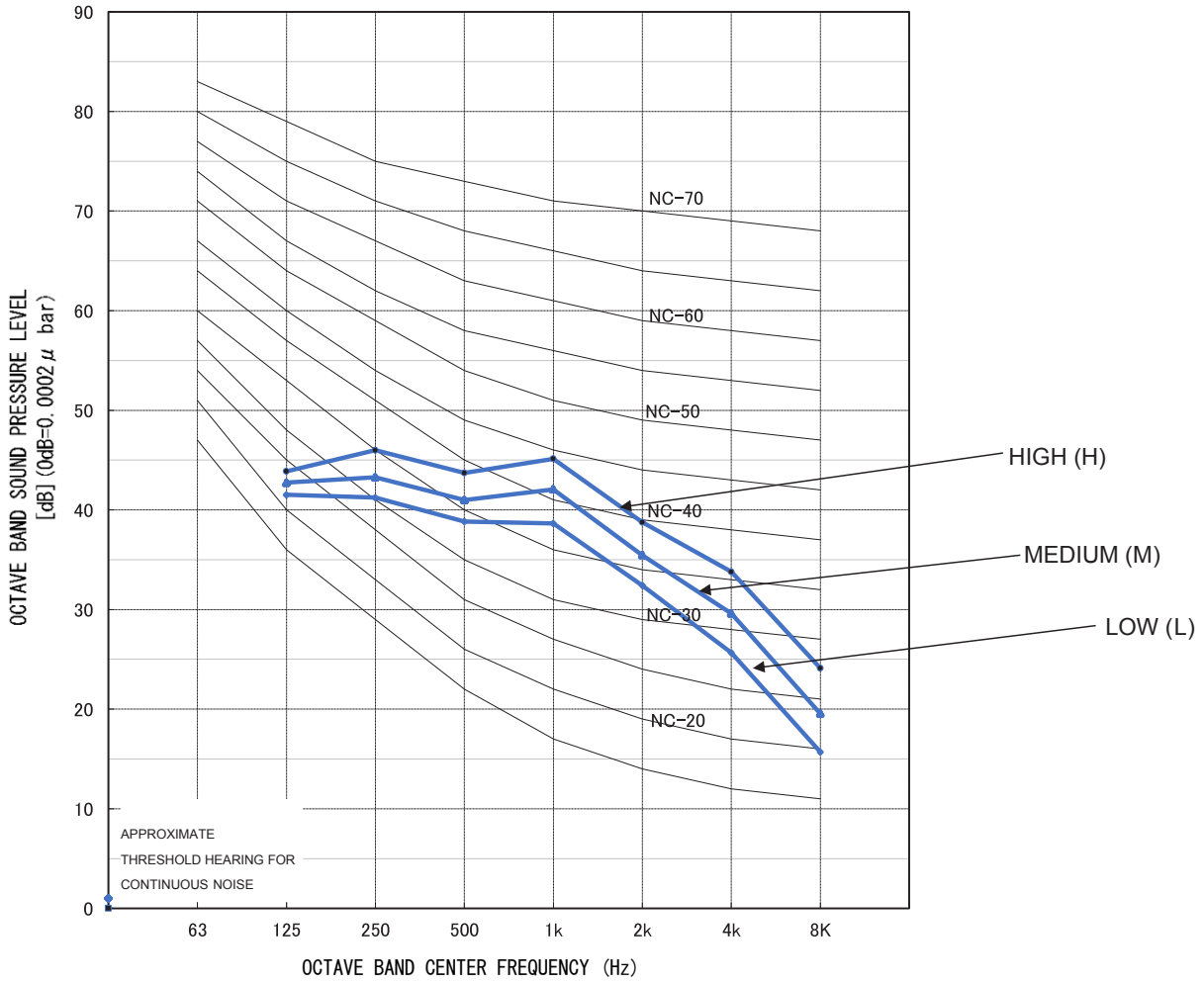


R70034155143

Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20µPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FHC85A	High	44	46	44	45	39	34	24	48	44
	Med	43	43	41	42	35	30	20	45	41
	Low	42	41	39	39	32	26	16	42	38

NC Curve

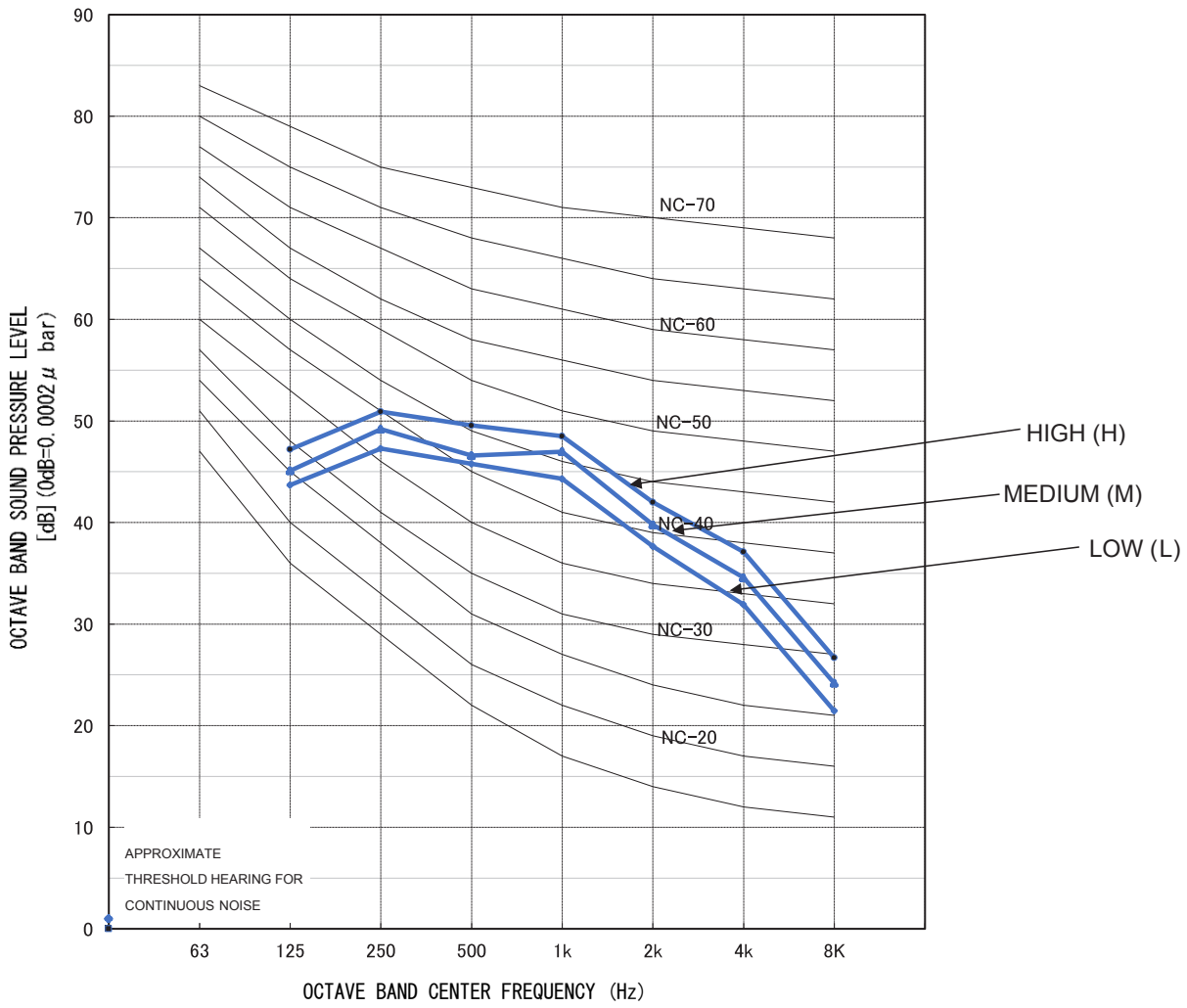


R70034155144

Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20µPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FHC100A FHC125A FHC140A	High	47	51	50	48	42	37	27	52	47
	Med	45	49	47	47	40	35	24	50	46
	Low	44	47	46	44	38	32	21	48	43

NC Curve

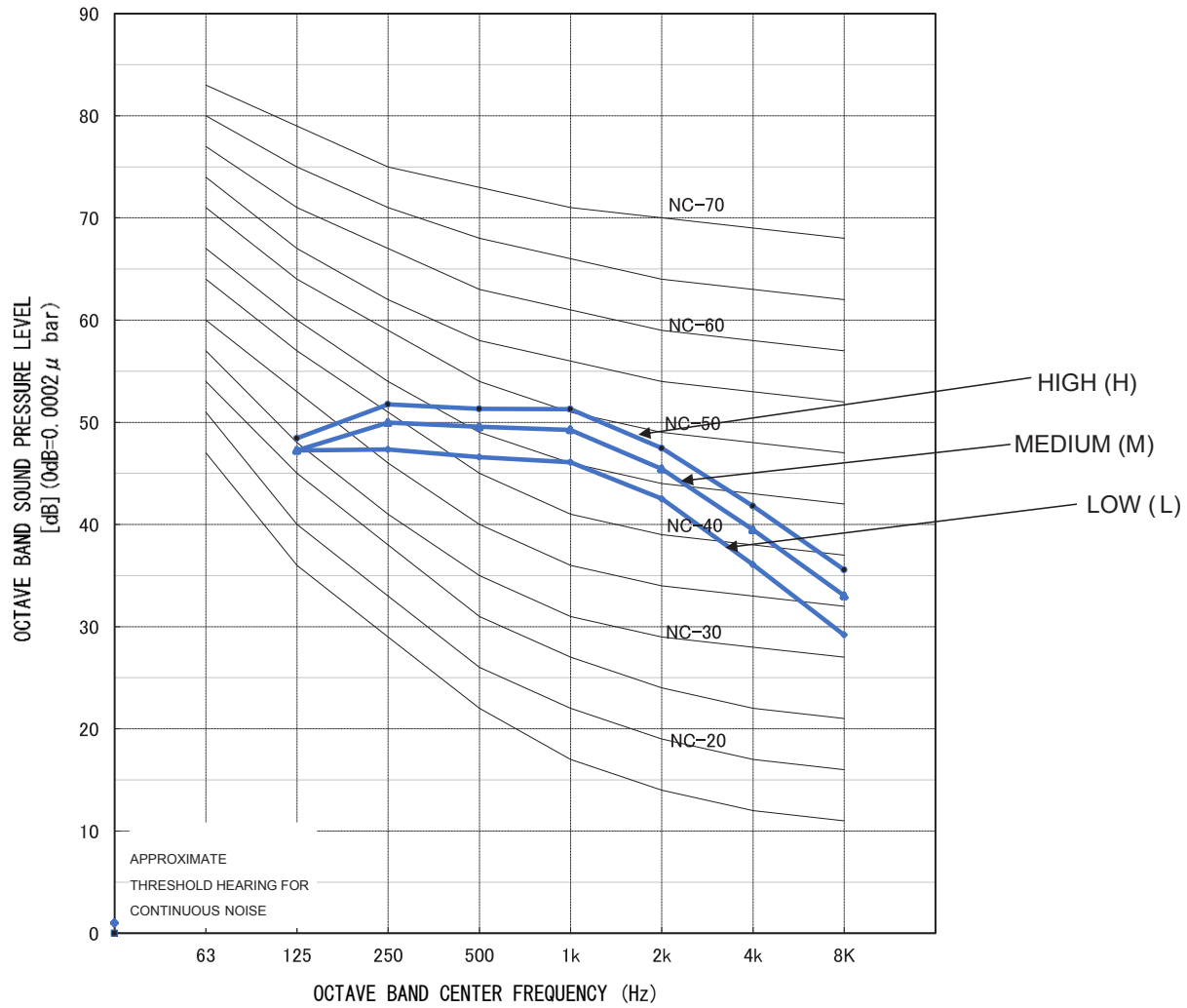


R70034155145

Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20µPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FHC160A	High	48	52	51	51	47	42	36	55	50
	Med	47	50	50	49	45	39	33	53	48
	Low	47	47	47	46	43	36	29	50	45

NC Curve



R70034155146

Electric Characteristic

Unit Combination		Power Supply					COMP		OFM		IFM	
Indoor Unit	**Outdoor Unit**	Hz	Voltage	Voltage Range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FHC50A	RC50B/A	50	220-240	Max. 50Hz 264V Min. 50Hz 198V	10.4	16	50	6.94	0.060	0.43	0.095	0.68
FHC60A	RC60B/A	50	220-240	Max. 50Hz 264V Min. 50Hz 198V	14.4	20	50	8.76	0.060	0.44	0.095	0.68
FHC85A	RC85B/A	50	220-240	Max. 50Hz 264V Min. 50Hz 198V	20.2	25	50	11.5	0.066	0.58	0.100	0.73
FHC100A	RC100B/A	50	220-240	Max. 50Hz 264V Min. 50Hz 198V	19.2	25	50	13.1	0.112	0.75	0.140	0.82
FHC125A	RC125B/A	50	380-415	Max. 50Hz 342V Min. 50Hz 457V	8.21	16	50	6.59	0.112	0.82	0.140	0.82
FHC140A	RC140B/A	50	380-415	Max. 50Hz 342V Min. 50Hz 457V	9.77	16	50	7.15	0.240	1.52	0.140	0.82
FHC160A	RC160B/A	50	380-415	Max. 50Hz 342V Min. 50Hz 457V	11.4	20	50	8.61	0.240	1.52	0.080 + 0.080	1.51

Symbols:

MCA : Min. circuit amps (A)
MFA : Max. fuse amps (A)
COMP : Compressor
RHz : Rated operating frequency (Hz)
RLA : Rated loads amps (A)
OFM : Outdoor fan motor
IFM : Indoor fan motor
kW : Fan motor rated output (kW)
FLA : Full load amps (A)

Notes:

1. RLA is based on the following conditions.
   Indoor temp. 27°CDB / 19°CWB
   Outdoor temp. 35°CDB
2. Select the wire size according to the MCA.
3. Maximum allowable voltage that is unbalance between phases is 2%.
4. Use circuit breaker instead of fuse

R70034155142