DAIKIN

technical data

air conditioning systems

RN-C/RS-B

Pair Application

Split Sky Air

Split - Sky Air

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment

Daikin units comply with the European regulations that guarantee the safety of the product.

Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

Specifications are subject to change without prior notice.

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RN-C / RS-B

1 Features

1

Outdoor units for pair application

- Daikin outdoor units can be mounted easily on a roof or terrace or simply placed against an outside wall.
- They are fitted with a swing compressor, renowned for its low noise and high energy efficiency.

2 Specifications

TECHNICAL SPECIFICATIONS								
OUTDOOR UNITS				**RN20CVMB**	**RN25CVMB**	**RN35CVMB**	**RS50BVMB**	**RS60BVMB**
DIMENSIONS	Unit	H	mm	560			735	
		W	mm	695			825	
		D	mm	265			300	
WEIGHT			kg	31			49	53
COLOUR	Unit			Ivory white				
SOUND LEVEL	Sound pressure (1)	(cooling) H/L	dB(A)	46/*	46/*	48/*	47/*	49/*
	Sound power (2)	(cooling) H	dB(A)	61	61	63	63	64
FAN	Air flow rate	(cooling) H/L	m^3/min	29/*	29/*	27.5/*	47.7/44.1	47.6/44.1
	Speed	(cooling) H/L	rpm	720	720	710	700/650	730/680
	Model			Propeller				
	Motor output		W	25			53	
HEAT EXCHANGER	Type			Colgate fin, Ø 8 grooved tube				
	Rows x stages x fin pitch		mm	2 x 12 x 1.4			1 x 32 x 1.6	2 x 32 x 1.8
REFRIGERANT CIRCUIT	Refrigerant type			R-410A				
	Refrigerant charge		kg	0.79	0.79	1.01	1.20	1.70
	Maximum allowable distance between indoor and outdoor		m	15			30	
	Maximum allowable level difference		m	15			20	
	Refrigerant control			Motor operated expansion valve				
COMPRESSOR	Type			Hermetically sealed swing type				
	Model			1YC23NXD#A			2YC32HXD	
	Motor output		W	600			1,500	
	Oil type			FVC50K				
	Oil charge volume		ℓ	0.375			0.65	0.65
PIPING CONNECTIONS		liquid	mm	Φ6.4				
		gas	mm	Φ9.5			Φ12.7	
		drain	mm	Φ18.0				
INSULATION MATERIAL	Heat insulation			Both liquid and gas pipes				

* This information was not available at the time of publication.

ELECTRICAL SPECIFICATIONS								
OUTDOOR UNITS				**RN20CVMB**	**RN25CVMB**	**RN35CVMB**	**RS50BVMB**	**RS60BVMB**
CURRENT	Nominal running current	cooling	A	3.12	3.52	4.72	7.12	9.12
	Max. running current	cooling	A	Please refer to electrical data				
	Starting current	cooling	A	3.3	3.7	4.9	7.3	9.3
POWER SUPPLY				VM	VM	VM	VM	VM
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase			1~	1~	1~	1~	1~
	Frequency		Hz	50	50	50	50	50
	Voltage		V	230	230	230	230	230

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3D044462
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3D040786A
3D040787A

NOTES

1 The sound pressure level is measured in an anechoic room at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 8 of this chapter.

2 The sound power level is an absolute value indicating the "power" which a sound source generates.

2 Specifications

2 ELECTRICAL DATA

RN+FTN20C

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTN20CVMB	RN20CVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	42	2.81	25	0.35	18	0.20

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RN+FTN25C

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTN25CVMB	RN25CVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	47	3.21	25	0.35	18	0.20

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RN+FTN35C

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTN35CVMB	RN35CVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	70	4.41	25	0.35	18	0.20

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RS+FTS50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTS50BVMB	RS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	72	6.92	53	0.18	40	0.16

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RS+FTS60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTS60BVMB	RS60BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	72	6.92	53	0.24	43	0.16

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RS+FVKS50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FVKS50BVMB	RS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	76	7.04	53	0.18	14+14	0.31

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RS+FLKS50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FLKS50BVMB	RS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	75	7.00	53	0.18	34	0.54

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SYMBOLS

MCA : Min. Circuit Amps (A)
MFA : Max. Fuse Amps (A)
RHz : Rated operating frequency(Hz)
RLA : Rated Load Amps (A)
OFM : Outdoor Fan Motor
IFM : Indoor Fan Motor
FLA : Full Load Amps
W : Rated motor output (W)

NOTES

1. RLA is based on the following conditions:
   Indoor temp.: 27°CDB/19.0°CWB
   Outdoor temp. : 35°CDB
2. Maximum allowable voltage unbalance between phases is 2%
3. Select wire size based on the larger value of MCA.
4. Instead of fuse, use circuit breaker.
5. For more details concerning conditional connections, see http://www.daikineurope.com/extranet, select "Daikin Documentation" and select "conditional connection", "the requested product type" and "English" from the drop down lists, click the search button. Finally, click on the document title of your choice.

2 Specifications

ELECTRICAL DATA

RS+FCQ50B
RS+FCQ60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FCQ50B7V1	RS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	78	7.38	53	0.18	45	0.6
FCQ60B7V1	RS60BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	89	8.72	53	0.24	45	0.6

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RS+FFQ50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FFQ	RS	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	72	7.43	53	0.18	55	0.7

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RS+FFQ60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FFQ	RS	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	85	8.45	53	0.24	55	0.7

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RS+FBQ50B
RS+FBQ60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FBQ50B7V1	RS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	75	7.00	53	0.18	85	0.7
FBQ60B7V1	RS60BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	91	8.96	53	0.24	125	0.9

3TW25081-2

RS+FHQ50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FHQ	RS	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	15	15	78	4.91	19	0.35	62	0.6

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RS+FHQ60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FHQ	RS	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	79	7.5	53	0.18	62	0.6

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SYMBOLS

MCA : Min. Circuit Amps (A)
MFA : Max. Fuse Amps (A)
RHz : Rated operating frequency(Hz)
RLA : Rated Load Amps (A)
OFM : Outdoor Fan Motor
IFM : Indoor Fan Motor
FLA : Full Load Amps
W : Rated motor output (W)

NOTES

1. RLA is based on the following conditions:
   Indoor temp.: 27°CDB/19.0°CWB
   Outdoor temp. : 35°CDB
2. Maximum allowable voltage unbalance between phases is 2%
3. Select wire size based on the larger value of MCA.
4. Instead of fuse, use circuit breaker.
5. For more details concerning conditional connections, see http://www.daikineurope.com/extranet, select "Daikin Documentation" and select "conditional connection", "the requested product type" and "English" from the drop down lists, click the search button. Finally, click on the document title of your choice.

3 Capacity tables

RN+FTN20C

AFR	7.7
BF	0.23

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	1.86	1.68	0.46	1.80	1.62	0.52	1.74	1.57	0.57	1.71	1.54	0.58	1.67	1.50	0.59	1.60	1.44	0.64
16.0	22	2.01	1.81	0.47	1.95	1.75	0.53	1.88	1.69	0.58	1.85	1.66	0.59	1.80	1.62	0.60	1.72	1.55	0.65
18.0	25	2.16	1.95	0.48	2.09	1.88	0.54	2.02	1.82	0.59	1.98	1.79	0.60	1.93	1.74	0.61	1.85	1.67	0.67
19.0	27	2.24	2.01	0.48	2.16	1.95	0.54	2.09	1.88	0.60	2.05	1.85	0.61	2.00	1.80	0.62	1.92	1.72	0.67
22.0	30	2.47	2.22	0.50	2.39	2.15	0.56	2.31	2.08	0.61	2.27	2.04	0.62	2.21	1.99	0.64	2.12	1.91	0.69
24.0	32	2.63	2.36	0.51	2.54	2.29	0.57	2.45	2.21	0.63	2.41	2.17	0.64	2.35	2.12	0.65	2.25	2.03	0.70

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RN+FTN25C

AFR	7.7
BF	0.23

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	2.10	1.78	0.52	2.03	1.72	0.58	1.96	1.66	0.65	1.92	1.63	0.66	1.87	1.59	0.67	1.80	1.52	0.72
16.0	22	2.26	1.92	0.53	2.19	1.86	0.59	2.11	1.79	0.66	2.08	1.76	0.67	2.02	1.72	0.68	1.94	1.65	0.74
18.0	25	2.43	2.06	0.54	2.35	2.00	0.61	2.27	1.93	0.67	2.23	1.89	0.68	2.17	1.85	0.69	2.08	1.77	0.75
19.0	27	2.52	2.14	0.55	2.43	2.06	0.61	2.35	1.99	0.67	2.31	1.96	0.68	2.25	1.91	0.70	2.16	1.83	0.76
22.0	30	2.78	2.36	0.56	2.69	2.28	0.63	2.60	2.20	0.69	2.55	2.17	0.70	2.49	2.11	0.72	2.38	2.02	0.78
24.0	32	2.96	2.51	0.57	2.86	2.43	0.64	2.76	2.34	0.71	2.71	2.30	0.72	2.64	2.24	0.73	2.53	2.15	0.79

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RN+FTN35C

AFR	7.7
BF	0.18

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	2.93	2.14	0.78	2.84	2.07	0.87	2.74	2.00	0.96	2.69	1.97	0.98	2.62	1.92	1.00	2.51	1.84	1.08
16.0	22	3.17	2.31	0.80	3.06	2.24	0.89	2.96	2.16	0.98	2.91	2.12	1.00	2.83	2.07	1.02	2.72	1.98	1.10
18.0	25	3.40	2.49	0.81	3.29	2.40	0.90	3.18	2.32	1.00	3.13	2.28	1.01	3.04	2.22	1.04	2.92	2.13	1.12
19.0	27	3.52	2.57	0.82	3.41	2.49	0.91	3.29	2.40	1.01	3.23	2.36	1.02	3.15	2.30	1.05	3.02	2.20	1.13
22.0	30	3.89	2.84	0.84	3.76	2.75	0.94	3.63	2.65	1.04	3.57	2.61	1.05	3.48	2.54	1.08	3.33	2.43	1.16
24.0	32	4.14	3.02	0.86	4.00	2.92	0.96	3.86	2.82	1.06	3.80	2.77	1.07	3.70	2.70	1.10	3.55	2.59	1.19

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RS+FTS50B

AFR	11.5
BF	0.23

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	5.06	3.28	1.31	4.91	3.21	1.41	4.76	3.14	1.50	4.70	3.11	1.54	4.61	3.07	1.60	4.46	3.00	1.69
16.0	22	5.22	3.31	1.34	5.07	3.24	1.43	4.92	3.17	1.53	4.86	3.14	1.56	4.77	3.10	1.62	4.62	3.03	1.72
18.0	25	5.37	3.34	1.36	5.22	3.27	1.46	5.07	3.20	1.55	5.01	3.18	1.59	4.92	3.13	1.65	4.77	3.06	1.74
19.0	27	5.45	3.36	1.38	5.30	3.29	1.47	5.15	3.22	1.57	5.09	3.19	1.60	5.00	3.15	1.66	4.85	3.08	1.76
22.0	30	5.68	3.41	1.41	5.53	3.34	1.51	5.38	3.27	1.60	5.32	3.24	1.64	5.23	3.20	1.70	5.08	3.13	1.79
24.0	32	5.84	3.45	1.44	5.69	3.38	1.54	5.54	3.31	1.63	5.48	3.28	1.67	5.39	3.24	1.73	5.24	3.17	1.82

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SYMBOLS

AFR:	Air flow rate	(m^3/min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal cooling capacities and power input
3. TC, PI and SHC must be calculated by interpolation using the figures in the above tables. (Figures out of the tables should not be used for calculation.)
4. SHC is based on each EWB and EDB
   SHC* = SHC correction for other dry bulb
   SHC* = 0.02 x AFR (m^3/min) x (1-BF) x (DB-EDB)
   Add SHC* to SHC.
5. Capacities are based on following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
6. Air flow rate (AFR) and Bypass factor (BF) are taburated above.

3 Capacity tables

RS+FTS60B

AFR	16.4
BF	0.30

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	6.06	3.97	1.77	5.91	3.90	1.87	5.76	3.83	1.96	5.70	3.80	2.00	5.61	3.76	2.06	5.46	3.69	2.15
16.0	22	6.22	4.00	1.80	6.07	3.93	1.89	5.92	3.86	1.99	5.86	3.83	2.02	5.77	3.79	2.08	5.62	3.72	2.18
18.0	25	6.37	4.03	1.82	6.22	3.96	1.92	6.07	3.89	2.01	6.01	3.87	2.05	5.92	3.82	2.11	5.77	3.75	2.20
19.0	27	6.45	4.05	1.84	6.30	3.98	1.93	6.15	3.91	2.03	6.09	3.88	2.06	6.00	3.84	2.12	5.85	3.77	2.22
22.0	30	6.68	4.10	1.87	6.53	4.03	1.97	6.38	3.96	2.06	6.32	3.93	2.10	6.23	3.89	2.16	6.08	3.82	2.25
24.0	32	6.84	4.14	1.90	6.69	4.07	2.00	6.54	4.00	2.09	6.48	3.97	2.13	6.39	3.93	2.19	6.24	3.86	2.28

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RS+FLKS50B

AFR	11.4
BF	0.18

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	4.96	3.26	1.37	4.81	3.19	1.47	4.66	3.12	1.56	4.60	3.09	1.60	4.51	3.05	1.66	4.36	2.98	1.75
16.0	22	5.12	3.30	1.40	4.97	3.23	1.49	4.82	3.16	1.59	4.76	3.13	1.62	4.67	3.09	1.68	4.52	3.02	1.78
18.0	25	5.27	3.33	1.42	5.12	3.26	1.52	4.97	3.19	1.61	4.91	3.16	1.65	4.82	3.12	1.71	4.67	3.05	1.80
19.0	27	5.35	3.35	1.44	5.20	3.28	1.53	5.05	3.21	1.63	4.99	3.18	1.66	4.90	3.14	1.72	4.75	3.07	1.82
22.0	30	5.58	3.40	1.47	5.43	3.33	1.57	5.28	3.26	1.66	5.22	3.23	1.70	5.13	3.19	1.76	4.98	3.12	1.85
24.0	32	5.74	3.43	1.50	5.59	3.36	1.60	5.44	3.29	1.69	5.38	3.26	1.73	5.29	3.22	1.79	5.14	3.15	1.88

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RS+FVKS50B

AFR	10.8
BF	0.23

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	4.86	3.15	1.35	4.71	3.08	1.45	4.56	3.01	1.54	4.50	2.98	1.58	4.41	2.94	1.64	4.26	2.87	1.73
16.0	22	5.02	3.18	1.38	4.87	3.11	1.47	4.72	3.04	1.57	4.66	3.02	1.60	4.57	2.97	1.66	4.42	2.90	1.76
18.0	25	5.17	3.22	1.40	5.02	3.15	1.50	4.87	3.08	1.59	4.81	3.05	1.63	4.72	3.01	1.69	4.57	2.94	1.78
19.0	27	5.25	3.23	1.42	5.10	3.16	1.51	4.95	3.09	1.61	4.89	3.07	1.64	4.80	3.02	1.70	4.65	2.95	1.80
22.0	30	5.48	3.29	1.45	5.33	3.22	1.55	5.18	3.15	1.64	5.12	3.12	1.68	5.03	3.08	1.74	4.88	3.01	1.83
24.0	32	5.64	3.32	1.48	5.49	3.25	1.58	5.34	3.18	1.67	5.28	3.15	1.71	5.19	3.11	1.77	5.04	3.04	1.86

3D040901

RS+FCQ50B

AFR	18
BF	0.10

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20.0	5.1	3.7	1.57	4.9	3.6	1.67	4.8	3.5	1.76	4.7	3.5	1.80	4.6	3.5	1.86	4.5	3.4	1.95
16.0	22.0	5.2	3.7	1.60	5.1	3.6	1.69	4.9	3.6	1.79	4.9	3.5	1.83	4.8	3.5	1.88	4.6	3.4	1.98
18.0	25.0	5.4	3.7	1.62	5.2	3.7	1.72	5.1	3.6	1.81	5.0	3.6	1.85	4.9	3.5	1.91	4.8	3.5	2.00
19.0	27.0	5.5	3.8	1.64	5.3	3.7	1.73	5.2	3.6	1.83	5.1	3.6	1.87	5.0	3.6	1.92	4.9	3.5	2.02
22.0	30.0	5.7	3.8	1.68	5.5	3.7	1.77	5.4	3.7	1.87	5.3	3.6	1.90	5.2	3.6	1.96	5.1	3.5	2.06
24.0	32.0	5.8	3.8	1.70	5.7	3.8	1.80	5.5	3.7	1.89	5.5	3.7	1.93	5.4	3.6	1.99	5.2	3.6	2.08

3TW25082-1

SYMBOLS

AFR:	Air flow rate	(m^3/min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal cooling capacities and power input
3. TC, PI and SHC must be calculated by interpolation using the figures in the above tables. (Figures out of the tables should not be used for calculation.)
4. SHC is based on each EWB and EDB
   SHC* = SHC correction for other dry bulb
   SHC* = 0.02 x AFR (m^3/min) x (1-BF) x (DB-EDB)
   Add SHC* to SHC.
5. Capacities are based on following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
6. Air flow rate (AFR) and Bypass factor (BF) are taburated above.

3 Capacity tables

RS+FCQ60B

AFR	18
BF	0.10

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20.0	5.8	4.5	1.84	5.6	4.4	1.94	5.5	4.3	2.03	5.4	4.3	2.07	5.3	4.3	2.13	5.2	4.2	2.22
16.0	22.0	5.9	4.5	1.87	5.8	4.4	1.96	5.6	4.4	2.06	5.6	4.4	2.10	5.5	4.3	2.15	5.3	4.2	2.25
18.0	25.0	6.1	4.6	1.89	5.9	4.5	1.99	5.8	4.4	2.08	5.7	4.4	2.12	5.6	4.3	2.18	5.5	4.3	2.27
19.0	27.0	6.2	4.6	1.91	6.0	4.5	2.00	5.9	4.4	2.10	5.8	4.4	2.13	5.7	4.4	2.19	5.6	4.3	2.29
22.0	30.0	6.4	4.6	1.95	6.2	4.6	2.04	6.1	4.5	2.14	6.0	4.5	2.17	5.9	4.4	2.23	5.8	4.3	2.33
24.0	32.0	6.5	4.7	1.97	4.7	4.6	2.07	6.2	4.5	2.16	6.2	4.5	2.20	6.1	4.4	2.26	5.9	4.4	2.35

3TW25082-1

RS+FFQ50B

AFR	12.0
BF	0.16

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	4.76	3.51	1.45	4.61	3.44	1.55	4.46	3.37	1.64	4.40	3.34	1.68	4.31	3.30	1.74	4.16	3.23	1.83
16.0	22	4.92	3.54	1.48	4.77	3.47	1.57	4.62	3.40	1.67	4.56	3.38	1.70	4.47	3.33	1. 76	4.32	3.26	1.86
18.0	25	5.07	3.58	1.50	4.92	3.51	1.60	4.77	3.44	1.69	4.71	3.41	1.73	4.62	3.37	1.79	4.47	3.30	1.88
19.0	27	5.15	3.59	1.52	5.00	3.52	1.61	4.85	3.45	1.71	4.79	3.43	1.74	4.70	3.38	1.80	4.55	3.31	1.90
22.0	30	5.38	3.65	1.55	5.23	3.58	1.65	5.08	3.51	1.74	5.02	3.48	1.78	4.93	3.44	1.84	4.78	3.37	1.93
24.0	32	5.54	3.68	1.58	5.39	3.61	1.68	5.24	3.54	1.77	5.18	3.51	1.81	5.09	3.47	1.87	4.94	3.40	1.96

3D041021

RS+FFQ60B

AFR	15.0
BF	0.11

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	5.86	4.30	1.72	5.71	4.23	1.82	5.56	4.16	1.91	5.50	4.13	1.95	5.41	4.09	2.01	5.26	4.02	2.10
16.0	22	6.02	4.34	1.75	5.87	4.27	1.84	5.72	4.20	1.94	5.66	4.17	1.97	5.57	4.13	2.03	5.42	4.06	2.13
18.0	25	6.17	4.37	1.77	6.02	4.30	1.87	5.87	4.23	1.96	5.81	4.20	2.00	5.72	4.16	2.06	5.57	4.09	2.15
19.0	27	6.25	4.39	1.79	6.10	4.32	1.88	5.95	4.25	1.98	5.89	4.22	2.01	5.80	4.18	2.07	5.65	4.11	2.17
22.0	30	6.48	4.44	1.82	6.33	4.37	1.92	6.18	4.30	2.01	6.12	4.27	2.05	6.03	4.23	2.11	5.88	4.16	2.20
24.0	32	6.64	4.47	1.85	6.49	4.40	1.95	6.34	4.33	2.04	6.28	4.30	2.08	6.19	4.26	2.14	6.04	4.19	2.23

3D041026

RS+FBQ50B

AFR	14
BF	0.15

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20.0	5.1	3.6	1.57	4.9	3.5	1.67	4.8	3.4	1.76	4.7	3.4	1.80	4.6	3.4	1.86	4.5	3.3	1.95
16.0	22.0	5.2	3.6	1.60	5.1	3.5	1.69	4.9	3.5	1.79	4.9	3.4	1.83	4.8	3.4	1.88	4.6	3.3	1.98
18.0	25.0	5.4	3.6	1.62	5.2	3.6	1.72	5.1	3.5	1.81	5.0	3.5	1.85	4.9	3.4	1.91	4.8	3.4	2.00
19.0	27.0	5.5	3.7	1.64	5.3	3.6	1.73	5.2	3.5	1.83	5.1	3.5	1.87	5.0	3.5	1.92	4.9	3.4	2.02
22.0	30.0	5.7	3.7	1.68	5.5	3.6	1.77	5.4	3.6	1.87	5.3	3.5	1.90	5.2	3.5	1.96	5.1	3.4	2.06
24.0	32.0	5.8	3.7	1.70	5.7	3.7	1.80	5.5	3.6	1.89	5.5	3.6	1.93	5.4	3.5	1.99	5.2	3.5	2.08

3TW25112-1

SYMBOLS

AFR:	Air flow rate	(m^3/min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal cooling capacities and power input
3. TC, PI and SHC must be calculated by interpolation using the figures in the above tables. (Figures out of the tables should not be used for calculation.)
4. SHC is based on each EWB and EDB
   SHC* = SHC correction for other dry bulb
   SHC* = 0.02 x AFR (m^3/min) x (1-BF) x (DB-EDB)
   Add SHC* to SHC.
5. Capacities are based on following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
6. Air flow rate (AFR) and Bypass factor (BF) are taburated above.

3 Capacity tables

RS+FBQ60B

AFR	19
BF	0.11

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20.0	5.8	4.6	1.84	5.6	4.6	1.94	5.5	4.5	2.03	5.4	4.5	2.07	5.3	4.4	2.13	5.2	4.3	2.22
16.0	22.0	5.9	4.7	1.87	5.8	4.6	1.96	5.6	4.5	2.06	5.6	4.5	2.10	5.5	4.5	2.15	5.3	4.4	2.25
18.0	25.0	6.1	4.7	1.89	5.9	4.6	1.99	5.8	4.6	2.08	5.7	4.5	2.12	5.6	4.5	2.18	5.5	4.4	2.27
19.0	27.0	6.2	4.7	1.91	6.0	4.6	2.00	5.9	4.6	2.10	5.8	4.5	2.13	5.7	4.5	2.19	5.6	4.4	2.29
22.0	30.0	6.4	4.8	1.95	6.2	4.7	2.04	6.1	4.6	2.14	6.0	4.6	2.17	5.9	4.6	2.23	5.8	4.5	2.33
24.0	32.0	6.5	4.8	1.97	6.4	4.7	2.07	6.2	4.7	2.16	6.2	4.6	2.20	6.1	4.6	2.26	5.9	4.5	2.35

3TW25112-1

RS+FHQ50B

AFR	13
BF	0.1

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	5.06	3.63	1.48	4.91	3.56	1.58	4.76	3.49	1.67	4.70	3.46	1.71	4.61	3.42	1.77	4.46	3.35	1.86
16.0	22	5.22	3.66	1.51	5.07	3.59	1.60	4.92	3.52	1.70	4.86	3.49	1.73	4.77	3.45	1.79	4.62	3.38	1.89
18.0	25	5.37	3.69	1.53	5.22	3.62	1.63	5.07	3.55	1. 72	5.01	3.53	1.76	4.92	3.48	1.82	4.77	3.41	1.91
19.0	27	5.45	3.71	1.55	5.30	3.64	1.64	5.15	3.57	1.74	5.09	3.54	1.77	5.00	3.50	1.83	4.85	3.43	1.93
22.0	30	5.68	3.76	1.58	5.53	3.69	1.68	5.38	3.62	1.77	5.32	3.59	1.81	5.23	3.55	1.87	5.08	3.48	1.96
24.0	32	5.84	3.80	1.61	5.69	3.73	1.71	5.54	3.66	1.80	5.48	3.63	1.84	5.39	3.59	1.90	5.24	3.52	1.99

3D040602

RS+FHQ60B

AFR	17
BF	0.2

Cooling capacity **230V [50Hz]**

Indoor		Outdoor temperature (°C)																	
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
14.0	20	5.76	4.17	1.80	5.61	4.10	1.90	5.46	4.03	1.99	5.40	4.00	2.03	5.31	3.96	2.09	5.16	3.89	2.18
16.0	22	5.92	4.21	1.83	5.77	4.14	1.92	5.62	4.07	2.02	5.56	4.04	2.05	5.47	4.00	2.11	5.32	3.93	2.21
18.0	25	6.07	4.24	1.85	5.92	4.17	1.95	5.77	4.10	2.04	5.71	4.07	2.08	5.62	4.03	2.14	5.47	3.96	2.23
19.0	27	6.15	4.26	1.87	6.00	4.19	1.96	5.85	4.12	2.06	5.79	4.09	2.09	5.70	4.05	2.15	5.55	3.98	2.25
22.0	30	6.38	4.31	1.90	6.23	4.24	2.00	6.08	4.17	2.09	6.02	4.14	2.13	5.93	4.10	2.19	5.78	4.03	2.28
24.0	32	6.54	4.34	1.93	6.39	4.27	2.03	6.24	4.20	2.12	6.18	4.17	2.16	6.09	4.13	2.22	5.94	4.06	2.31

3D040605

SYMBOLS

AFR:	Air flow rate	(m^3/min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)

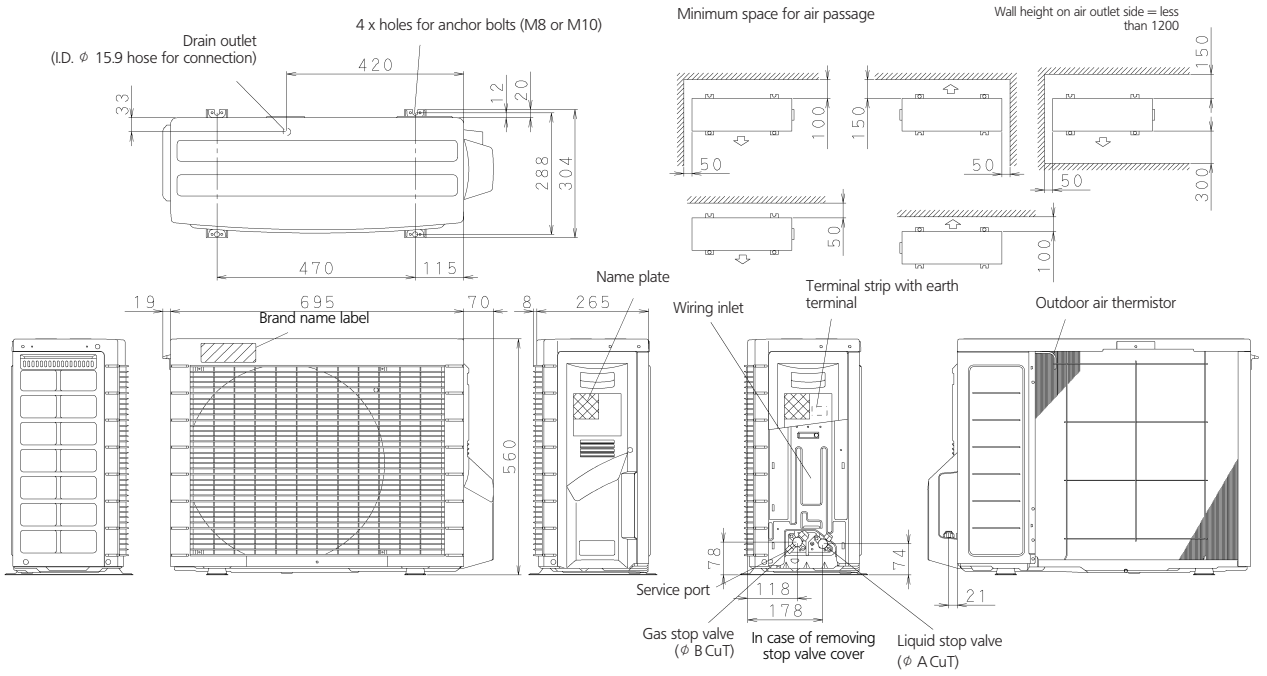
NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal cooling capacities and power input
3. TC, PI and SHC must be calculated by interpolation using the figures in the above tables. (Figures out of the tables should not be used for calculation.)
4. SHC is based on each EWB and EDB
   SHC* = SHC correction for other dry bulb
   SHC* = 0.02 x AFR (m^3/min) x (1-BF) x (DB-EDB)
   Add SHC* to SHC.
5. Capacities are based on following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
6. Air flow rate (AFR) and Bypass factor (BF) are taburated above.

4 Dimensional drawings

RN20,25,35C

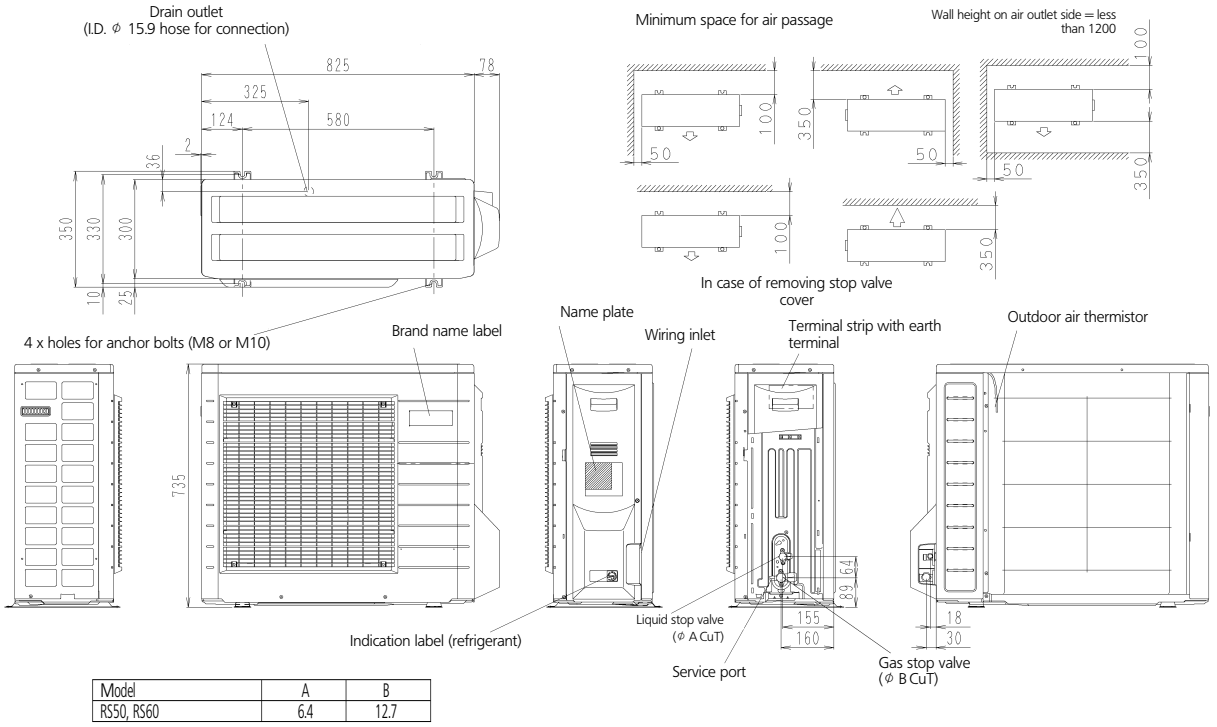
unit (mm)



3D042721A

RS50,60B

unit (mm)

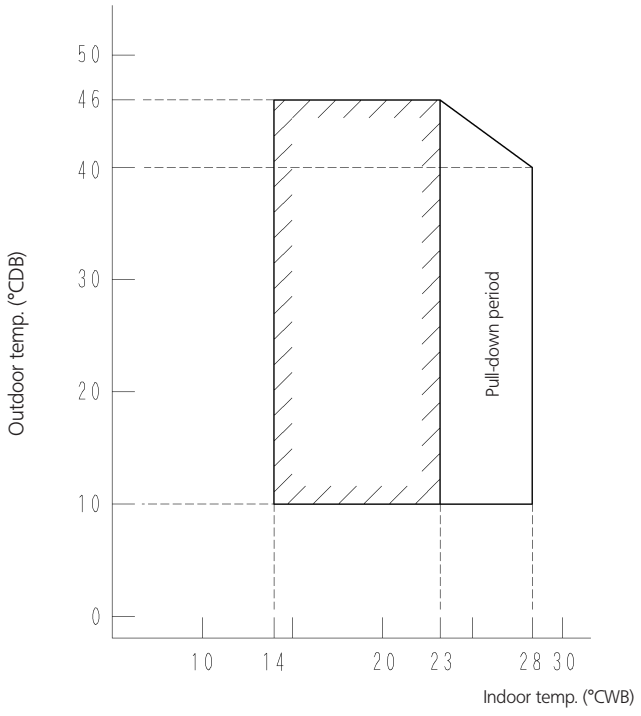


Model	A	B
RS50, RS60	6.4	12.7

3D034257B

5 Operation range

RN20,25,35C



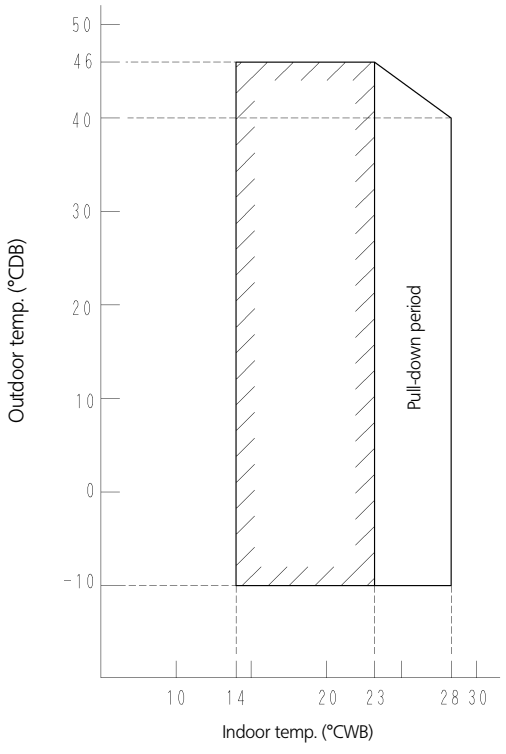
Notes:

The graph is based on the following conditions:

1. Equivalent piping length	7.5 m
2. Level difference	0 m
3. Air flow rate	high

4D044283

RS50,60B



Notes:

The graph is based on the following conditions:

1. Equivalent piping length	7.5 m
2. Level difference	0 m
3. Air flow rate	high

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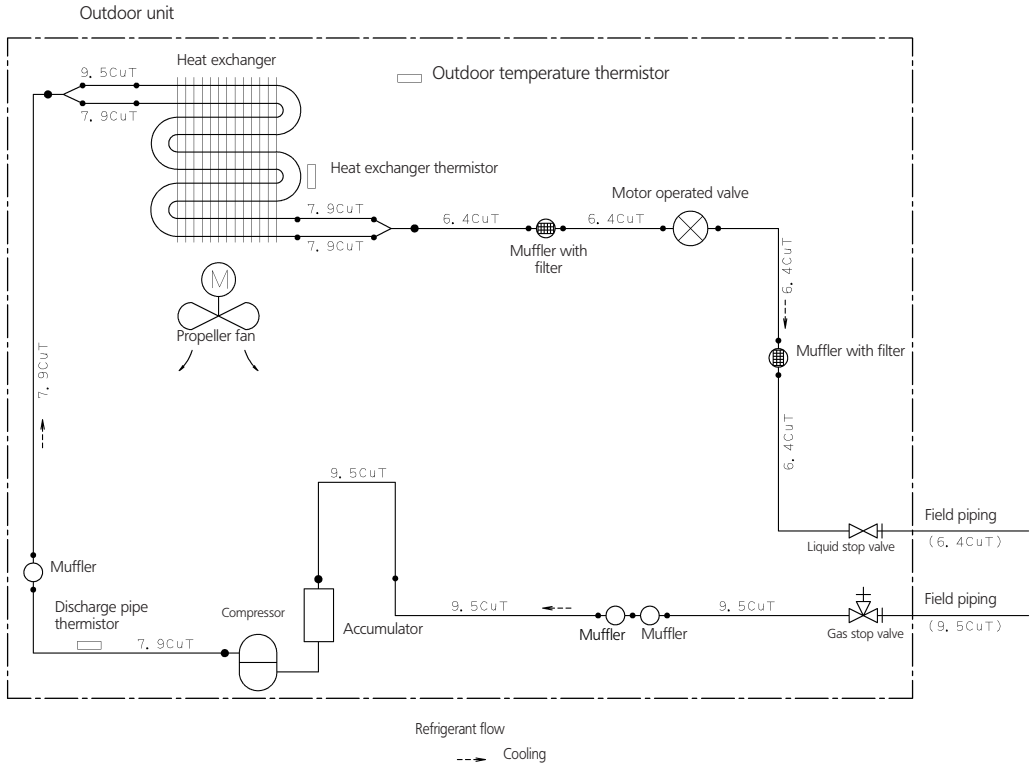
6 Piping diagrams

RN20,25C



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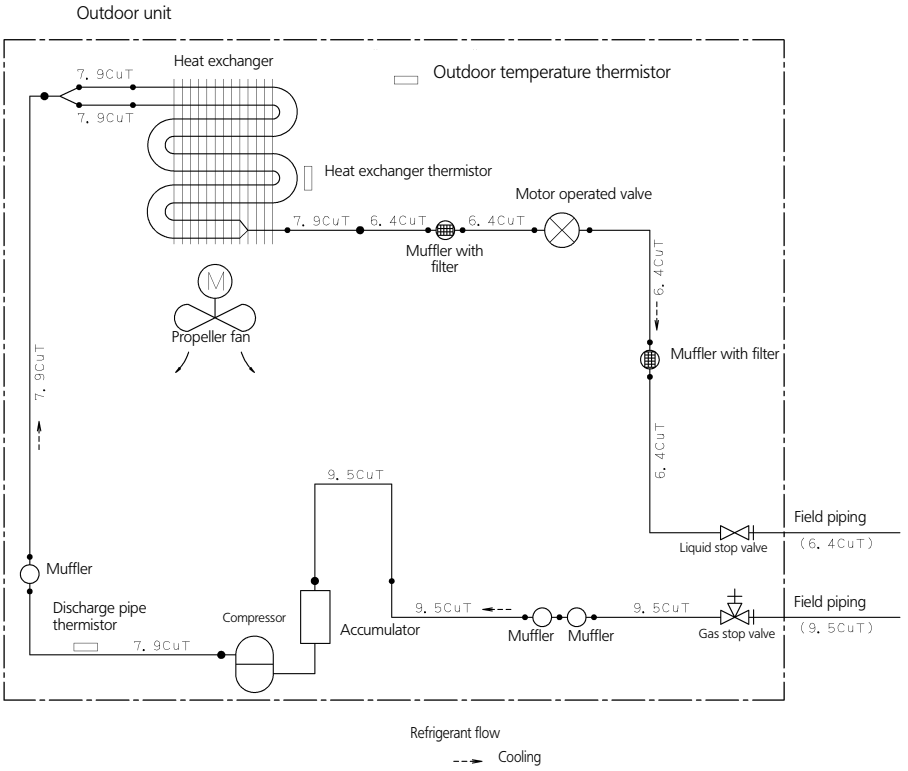
RN35C



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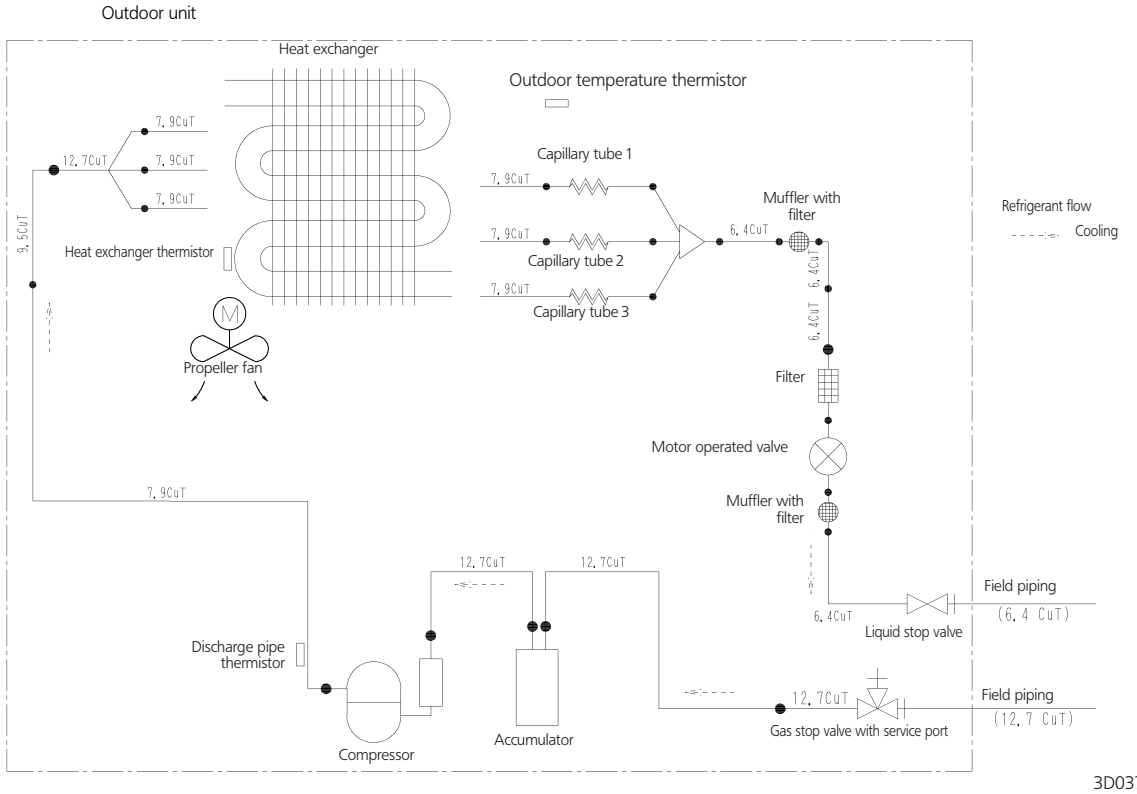
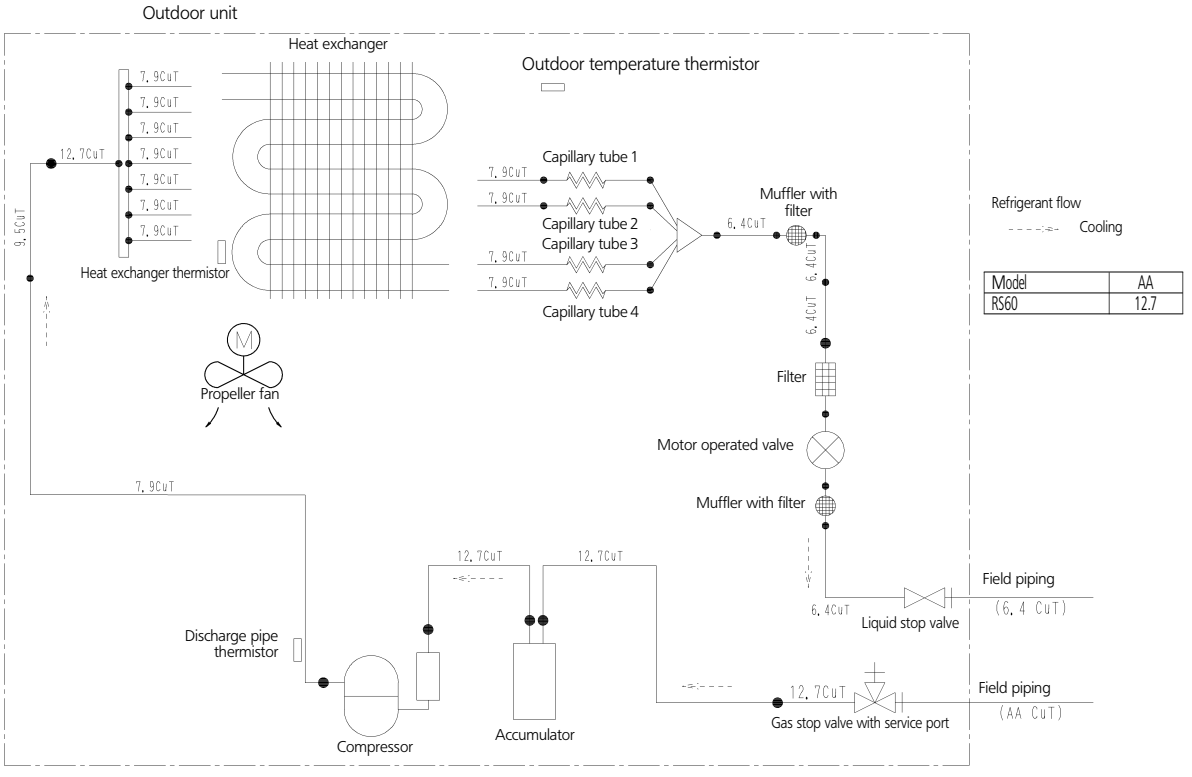
6 Piping diagrams

RS50B



3D037835A

RS60B



Model	AA
RS60	12.7

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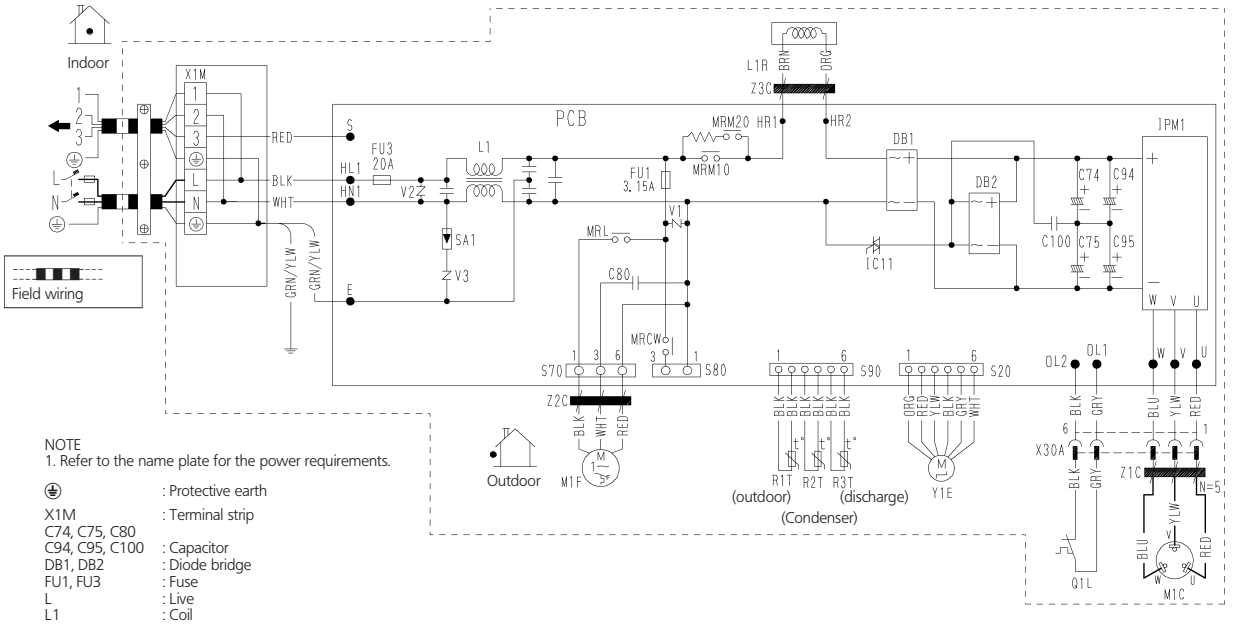
7 Wiring diagrams

RN20,25,35C

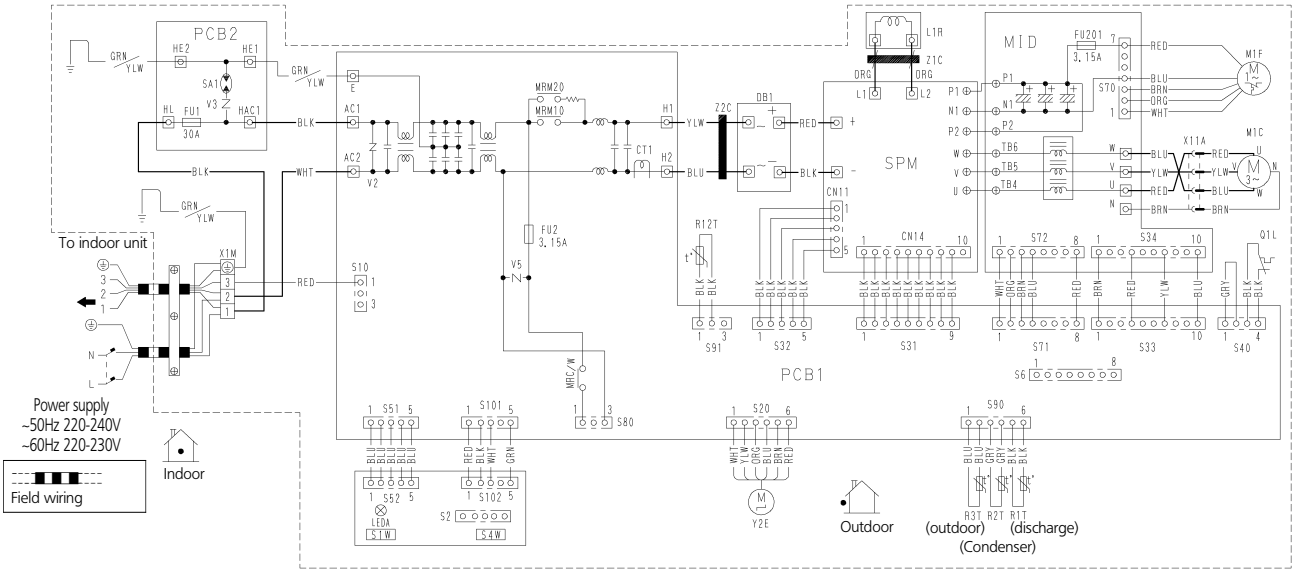


NOTE
1. Refer to the name plate for the power requirements.

⏚	: Protective earth
X1M	: Terminal strip
C74, C75, C80	
C94, C95, C100	: Capacitor
DB1, DB2	: Diode bridge
FU1, FU3	: Fuse
L	: Live
L1	: Coil
L1R	: Reactor
M1C	: Compressor motor
M1F	: Fan motor
PCB	: Printed circuit board
MRCW, MRL,	
MRM10, MRM20	: Magnetic relay
N	: Neutral
Q1L	: Overload protector
R1T, R2T, R3T,	: Thermistor
S20, S75, S80, S90	: Connector
SA1	: Surge arrester
Z1C, Z2C, Z3C	: Ferrite core
IC11	: Solid state relay
IMP1	: Intelligent power module
V1, V2, V3	: Varistor
Y1E	: Electronic expansion valve coil

3D042577A

RS50,60B



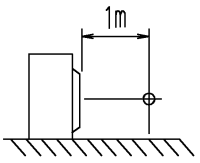
⏚	: Protective earth
Z1C, Z2C	: Ferrite core
X1M	: Terminal strip
Y2E	: Electronic expansion valve coil
V2~V5	: Varistor
F1U, F2U, FU201	: Fuse
HE1, HE2, HAC1,	
E, AC1, AC2	
H1, H2, HL	
L1, L2, X11A	: Connector
MRM10, MRM20,	
MRC/W	: Magnetic relay
R1T~R3T	: Thermistor
S2~S102	: Connector
LEDA	: Pilot lamp
PCB1, PCB2	: Printed circuit board
L	: Live
N	: Neutral
S1W	: Forced operation on/off switch (SW1)
S4W	: Local setting (SW4)
SA1	: Surge arrester
DB1	: Diode bridge
M1C	: Compressor motor
M1F	: Fan motor
L1R	: Reactor
Q1L	: Overload protector
CT1	: Current transformer
MID	: Molded interconnect device
SPM	: System power module

3D037866D

8 Sound level

8-1 Sound level data

Cooling only

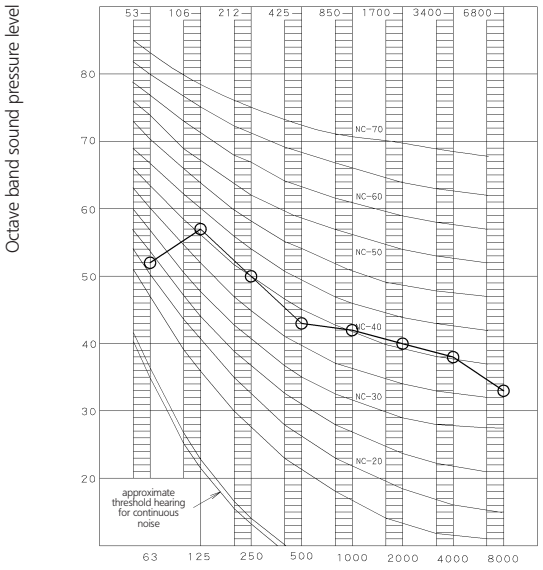
Model	Sound pressure level		Sound power level (cooling)
	230V, 50Hz	Measuring location	
	Cooling		
	H		
RN20C	46		61
RN25C	46		61
RN35C	48		63
RS50B	47		63
RS60B	49		64

8 Sound level

8-2 Sound pressure spectrum

Cooling only

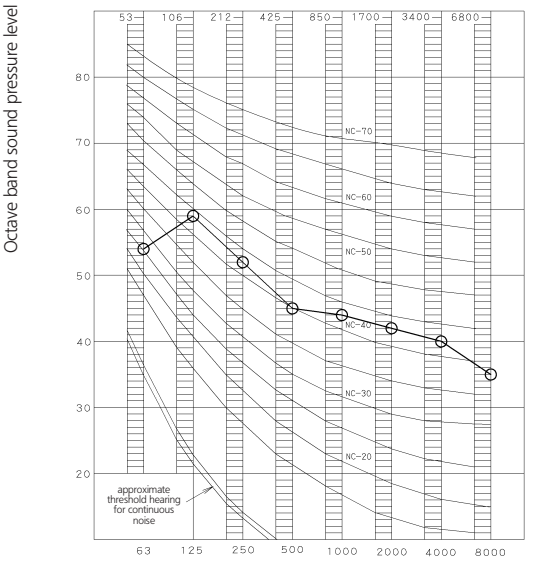
RN20,25C



4D044292

Octave band center frequency (Hz)

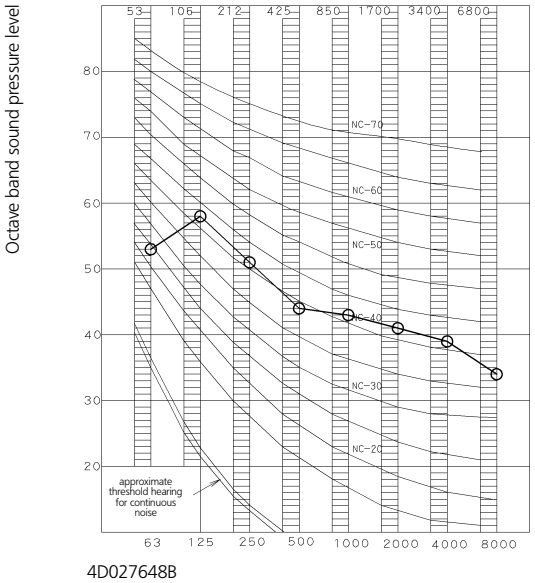
RN35C



4D044293

Octave band center frequency (Hz)

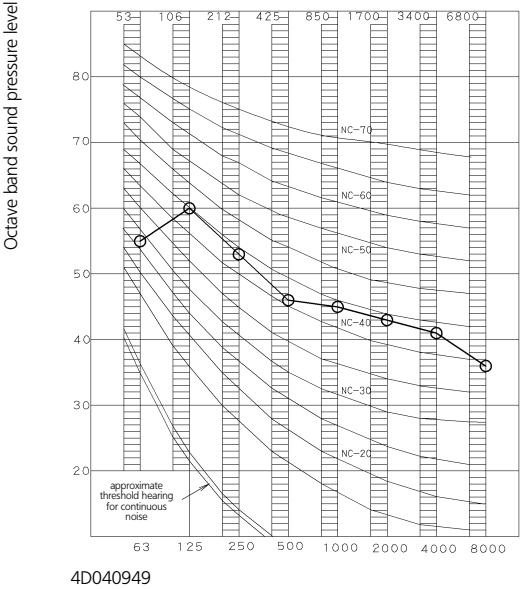
RS50B



4D027648B

Octave band center frequency (Hz)

RS60B



4D040949

Octave band center frequency (Hz)

Legend

50/60Hz, 220-240/220-230V

NOTES

1 Operation sound is measured in an anechoic chamber.
2 Operation sound level differs with operation and ambient conditions.
3 Reference acoustic pressure 0dB = 20Pa

9 Accessories

9-1 Standard accessories

RN/S-C/B

Accessories supplied with the outdoor unit:	
Installation manual	1

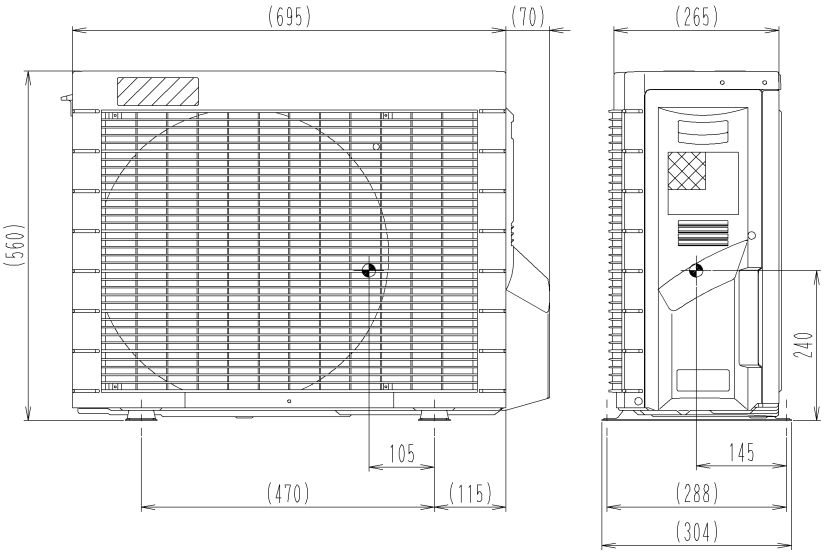
9-2 Optional accessories

RN/S-C/B

	RN20CVMB	RN25CVMB	RN35CVMB	RS50BVMB	RS60BVMB
Air direction adjustment grille	KPW937A4			KPW945A4	

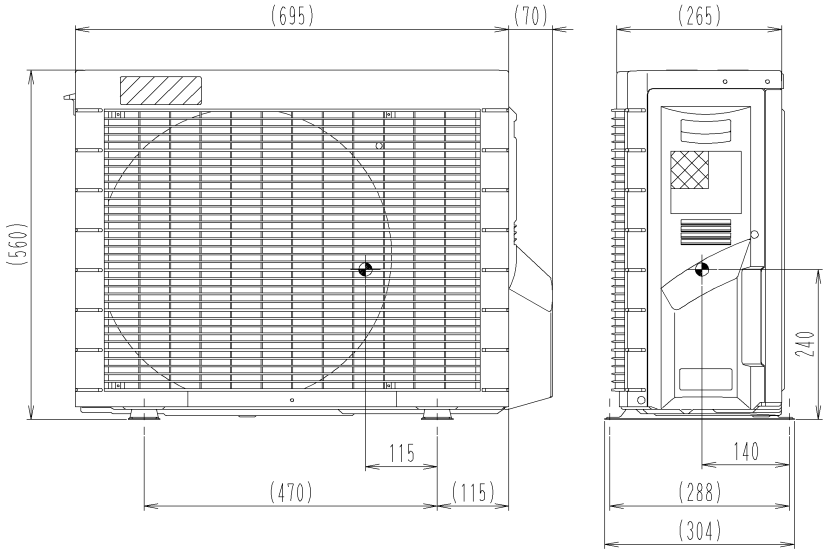
10 Center of gravity

RN20,25C



4D044156

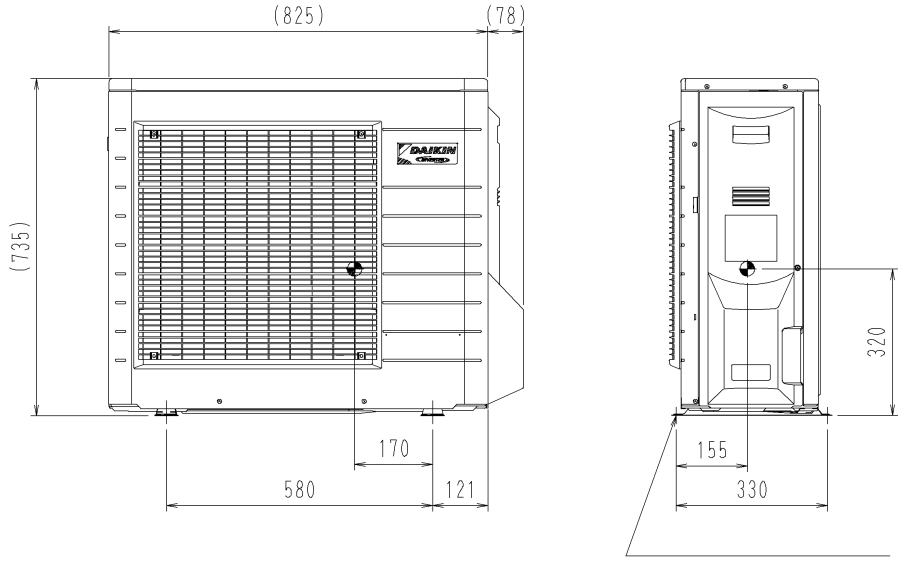
RN35C



4D044157

10 Center of gravity

RS50,60B



4D042259

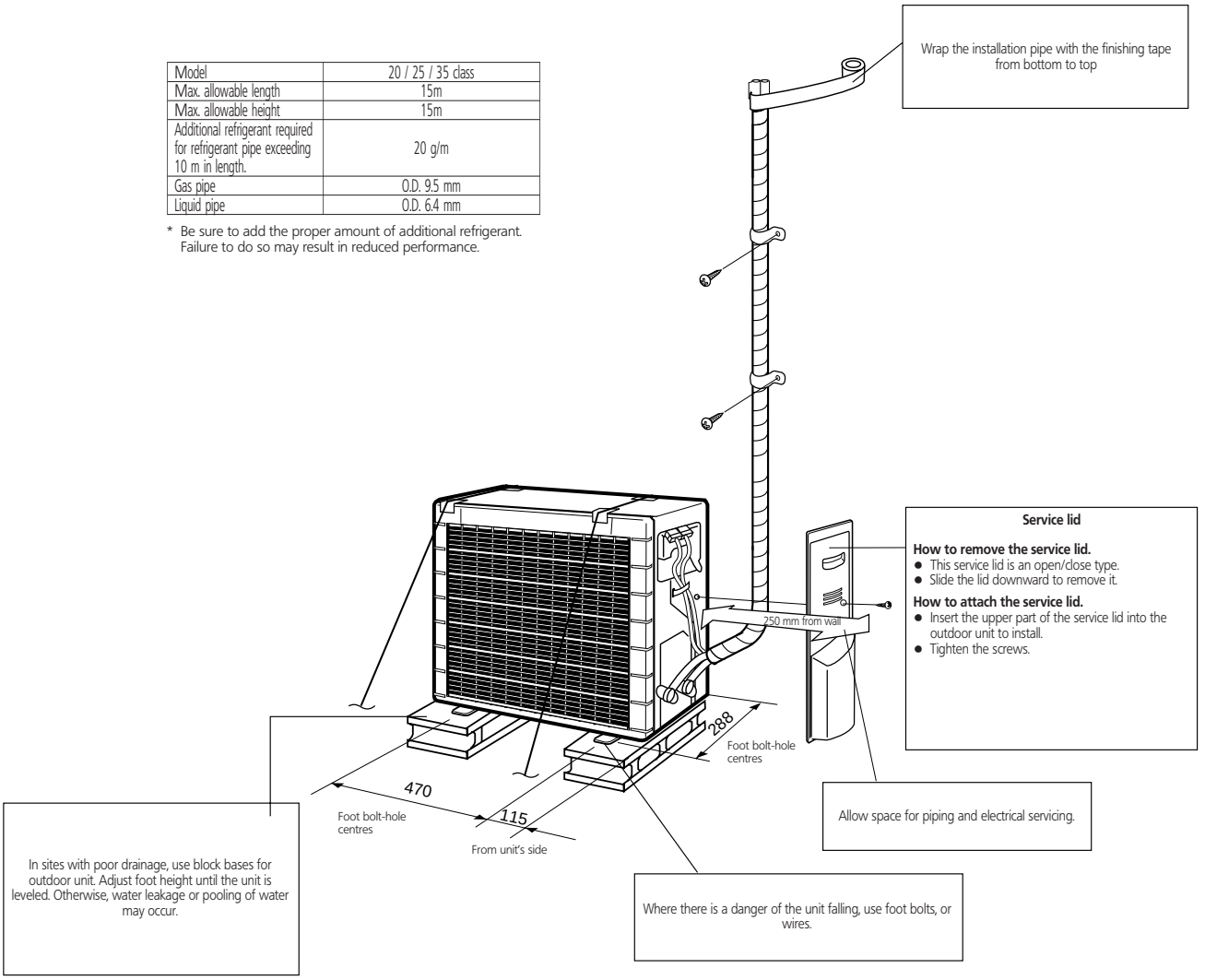
11 Installation

RN20,25,35C

Outdoor unit installation drawings

Model	20 / 25 / 35 class
Max. allowable length	15m
Max. allowable height	15m
Additional refrigerant required for refrigerant pipe exceeding 10 m in length.	20 g/m
Gas pipe	O.D. 9.5 mm
Liquid pipe	O.D. 6.4 mm

* Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced performance.



11 Installation

RS50,60B

Outdoor unit installation drawings

Model	50 class	60 class
Max. allowable length	30m	
Max. allowable height	20m	
Additional refrigerant required for refrigerant pipe exceeding 10 m in length.	20 g/m	
Gas pipe	O.D. 12.7 mm	
Liquid pipe	O.D. 6.4 mm	

* Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced performance.