DAIKIN

technical data

air conditioning systems

RYS-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. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

Specifications are subject to change without prior notice.

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RYS-B

OPTIMISED DESIGN R-410A

1 Features

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Outdoor units for pair application

- Daikin outdoor units can be mounted easily on a roof or terrace or simply placed against an outside wall.

2 Specifications

TECHNICAL SPECIFICATIONS									
OUTDOOR UNITS				**RYS20BVMB**	**RYS25BVMB**	**RYS35BVMB**	**RYS50BVMB**	**RYS60BVMB**
DIMENSIONS	Unit	H	mm	560			735	
		W	mm	695			825	
		D	mm	265			300	
WEIGHT	Unit		kg	34		37	49	53
COLOUR	Unit			Ivory white				
SOUND LEVEL	Sound pressure (1)	(cooling) H/L	dBA	47/*				49/*
		(heating) H/L	dBA	48/*				49/*
	Sound power (2)	(cool/heat) H	dBA	60/*			63/64	64/64
FAN	Air flow rate	(cooling) H/L	m^3/min	29/*	29/*	27.5/*	47.7/44.1	47.6/44.1
		(heating) H/L	m^3/min	25.5/*	25.5/*	23.5/*	44.1/44.1	45.5/45.5
	Speed	(cooling) H/L	rpm	720/*	720/*	710/*	700/650	730/680
		(heating) H/L	rpm	690/*	690/*	690/*	650/650	700/700
	Model			KFD-380-53-8C				
	Motor output		W	25			53	
HEAT EXCHANGER	Type			WL fin, ⌀8 Hi-XA tube				
	Rows x stages x fin pitch		mm	1 x 24 x 1.5		2 x 24 x 1.5	1 x 32 x 1.6	2 x 32 x 1.8
REFRIGERANT CIRCUIT	Refrigerant type			R-410A				
	Refrigerant charge		kg	0.79		0.96	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			1YC23KXA#A		2YC32HXD		
	Motor output			600			1,500	
	Oil type			FVC50K				
	Oil charge volume		ℓ	0.43	0.43	0.43	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.

2 Specifications

ELECTRICAL SPECIFICATIONS

OUTDOOR UNITS				RYS20BVMB	RYS25BVMB	RYS35BVMB	RYS50BVMB	RYS60BVMB
CURRENT	Nominal running current	cooling/heating	A	3.22/3.92	4.32/4.82	5.82/6.72	7.12/7.32	9.12/9.02
	Max. running current	cooling/heating	A	Please refer to electrical data				
	Starting current	cooling/heating	A	4.1	5.0	6.9	7.5	9.3

OUTDOOR UNITS			RYS20BVMB	RYS25BVMB	RYS35BVMB	RYS50BVMB	RYS60BVMB
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

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

ELECTRICAL DATA

RYS+FTYS20B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTYS20BVMB	RYS20BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	38	2.91	25	0.35	18	0.20

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RYS+FTYS25B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTYS25BVMB	RYS25BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	52	4.01	25	0.35	18	0.20

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RYS+FTYS35B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTYS35BVMB	RYS35BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	13.0	15	71	5.51	25	0.35	18	0.20

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RYS+FTYS50B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTYS50BVMB	RYS50BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	72	6.92	53	0.18	40	0.16

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RYS+FTYS60B

Indoor unit	Outdoor unit	Power supply				Compressor		OFM		IFM	
		Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FTYS60BVMB	RYS60BVMB	50-230	MAX. 50Hz 253V MIN. 50Hz 207V	18	20	72	8.86	53	0.24	43	0.16

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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.

3 Capacity tables

RYS+FTYS20B

AFR	7.5
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	1.86	1.36	0.52	1.80	1.31	0.58	1.74	1.27	0.64	1. 71	1.25	0.65	1.67	1.22	0.66	1.60	1.17	0.71
16.0	22	2.01	1.47	0.53	1.95	1.42	0.59	1.88	1.37	0.65	1.85	1.35	0.66	1.80	1.31	0.67	1.72	1.26	0.73
18.0	25	2.16	1.58	0.53	2.09	1.53	0.60	2.02	1.47	0.66	1.98	1.45	0.67	1.93	1.41	0.68	1.85	1.35	0.74
19.0	27	2.24	1.63	0.54	2.16	1.58	0.60	2.09	1.52	0.66	2.05	1.50	0.67	2.00	1.46	0.69	1.92	1.40	0.75
22.0	30	2.47	1.80	0.56	2.39	1.74	0.62	2.31	1.68	0.68	2.27	1.66	0.69	2.21	1.61	0.71	2.12	1.55	0.77
24.0	32	2.63	1.92	0.57	2.54	1.85	0.63	2.45	1.79	0.70	2.41	1.76	0.71	2.35	1.72	0.72	2.25	1.64	0.78

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

AFR	7.6

Indoor	Outdoor temperature (°CWB)									
EDB	-10		-5		0		6		10	
(°C)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	1.49	0.59	1.85	0.64	2.20	0.69	2.63	0.75	2.91	0.79
18.0	1.48	0.62	1.83	0.67	2.19	0.72	2.61	0.78	2.90	0.82
20.0	1.46	0.64	1.82	0.69	2.17	0.74	2.60	0.81	2.88	0.85
21.0	1.46	0.66	1.81	0.71	2.17	0.76	2.59	0.82	2.88	0.86
22.0	1.45	0.67	1.81	0.72	2.16	0.77	2.59	0.83	2.87	0.87
24.0	1.44	0.70	1.79	0.75	2.15	0.80	2.57	0.86	2.86	0.90

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RYS+FTYS25B

AFR	7.8
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	2.33	1.55	0.67	2.25	1.49	0.74	2.17	1.44	0.82	2.14	1.42	0.83	2.08	1.38	0.85	2.00	1.32	0.92
16.0	22	2.51	1.67	0.68	2.43	1.61	0.76	2.35	1.56	0.83	2.31	1.53	0.85	2.25	1.49	0.87	2.16	1.43	0.91
18.0	25	2.70	1.79	0.69	2.61	1.73	0.77	2.52	1.67	0.85	2.48	1.65	0.86	2.42	1.60	0.88	2.32	1.54	0.95
19.0	27	2.80	1.85	0.70	2.70	1.79	0.78	2.61	1.73	0.86	2.57	1.70	0.87	2.50	1.66	0.89	2.40	1.59	0.96
22.0	30	3.09	2.05	0.72	2.99	1.98	0.80	2.88	1.91	0.88	2.84	1.88	0.90	2.76	1.83	0.92	2.65	1.76	0.99
24.0	32	3.28	2.18	0.73	3.18	2.11	0.81	3.07	2.04	0.90	3.02	2.00	0.91	2.94	1.95	0.93	2.81	1.87	1.01

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

AFR	7.9

Indoor	Outdoor temperature (°CWB)									
EDB	-10		-5		0		6		10	
(°C)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	1.89	0.75	2.34	0.81	2.79	0.87	3.33	0.95	3.69	1.00
18.0	1.88	0.78	2.33	0.85	2.78	0.91	3.32	0.99	3.68	1.04
20.0	1.86	0.82	2.31	0.88	2.76	0.95	3.30	1.03	3.66	1.08
21.0	1.85	0.84	2.30	0.90	2.75	0.97	3.29	1.04	3.65	1.09
22.0	1.84	0.86	2.29	0.92	2.74	0.99	3.28	1.06	3.64	1.11
24.0	1.83	0.89	2.28	0.96	2.73	1.02	3.27	1.10	3.63	1.15

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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 the 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

RYS+FTYS35B

AFR	8
BF	0.17

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	3.21	2.19	0.77	3.06	2.12	0.87	2.91	2.05	0.96	2.85	2.02	1.00	2.76	1.98	1.06	2.61	1.91	1.15
16.0	22	3.37	2.22	0.80	3.22	2.15	0.89	3.07	2.08	0.99	3.01	2.06	1.02	2.92	2.01	1.08	2.77	1.94	1.18
18.0	25	3.52	2.26	0.82	3.37	2.19	0.92	3.22	2.12	1.01	3.16	2.09	1.05	3.07	2.05	1.11	2.92	1.98	1.20
19.0	27	3.60	2.27	0.84	3.45	2.20	0.93	3.30	2.13	1.03	3.24	2.11	1.06	3.15	2.06	1.12	3.00	1.99	1.22
22.0	30	3.83	2.33	0.87	3.68	2.26	0.97	3.53	2.19	1.06	3.47	2.16	1.10	3.38	2.12	1.16	3.23	2.05	1.25
24.0	32	3.99	2.36	0.90	3.84	2.29	1.00	3.69	2.22	1.09	3.63	2.19	1.13	3.54	2.15	1.19	3.39	2.08	1.28

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

AFR	7.9

Indoor	Outdoor temperature (°CWB)									
EDB	-10		-5		0		6		10	
(°C)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.35	0.98	2.91	1.06	3.47	1.15	4.14	1.25	4.59	1.32
18.0	2.33	1.03	2.89	1.11	3.45	1.20	4.12	1.30	4.57	1.36
20.0	2.31	1.08	2.87	1.16	3.43	1.24	4.10	1.35	4.55	1.41
21.0	2.30	1.10	2.86	1.18	3.42	1.27	4.09	1.37	4.54	1.44
22.0	2.29	1.12	2.85	1.21	3.41	1.29	4.08	1.39	4.53	1.46
24.0	2.27	1.17	2.83	1.26	3.39	1.34	4.06	1.44	4.51	1.51

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RYS+FTYS50B

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

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

AFR	12.2

Indoor	Outdoor temperature (°CWB)											
EDB	-15		-10		-5		0		6		10	
(°C)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.91	1.22	3.61	1.31	4.31	1.39	5.02	1.48	5.86	1.58	6.42	1.65
18.0	2.88	1.28	3.58	1.37	4.29	1.45	4.99	1.54	5.83	1.64	6.39	1.71
20.0	2.85	1.34	3.55	1.43	4.26	1.51	4.96	1.60	5.80	1.70	6.36	1.77
21.0	2.84	1.37	3.54	1.46	4.24	1.54	4.94	1.63	5.79	1.73	6.35	1.80
22.0	2.82	1.40	3.53	1.49	4.23	1.57	4.93	1.66	5.77	1.76	6.33	1.83
24.0	2.79	1.47	3.50	1.55	4.20	1.64	4.90	1.72	5.74	1.82	6.30	1.89

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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 the 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

RYS+FTYS60B

AFR	16.4
BF	0.29

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

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

AFR	17.5

Indoor	Outdoor temperature (°CWB)											
EDB	-15		-10		-5		0		6		10	
(°C)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	3.51	1.50	4.36	1.61	5.21	1.71	6.05	1.81	7.07	1.94	7.75	2.02
18.0	3.48	1.58	4.32	1.68	5.17	1.78	6.02	1.89	7.04	2.01	7.71	2.10
20.0	3.44	1.65	4.29	1.76	5.14	1.86	5.98	1.96	7.00	2.09	7.68	2.17
21.0	3.43	1.69	4.27	1.79	5.12	1.90	5.97	2.00	6.98	2.13	7.66	2.21
22.0	3.41	1.73	4.25	1.83	5.10	1.94	5.95	2.04	6.97	2.17	7.64	2.25
24.0	3.37	1.80	4.22	1.91	5.07	2.01	5.91	2.12	6.93	2.24	7.61	2.32

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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)

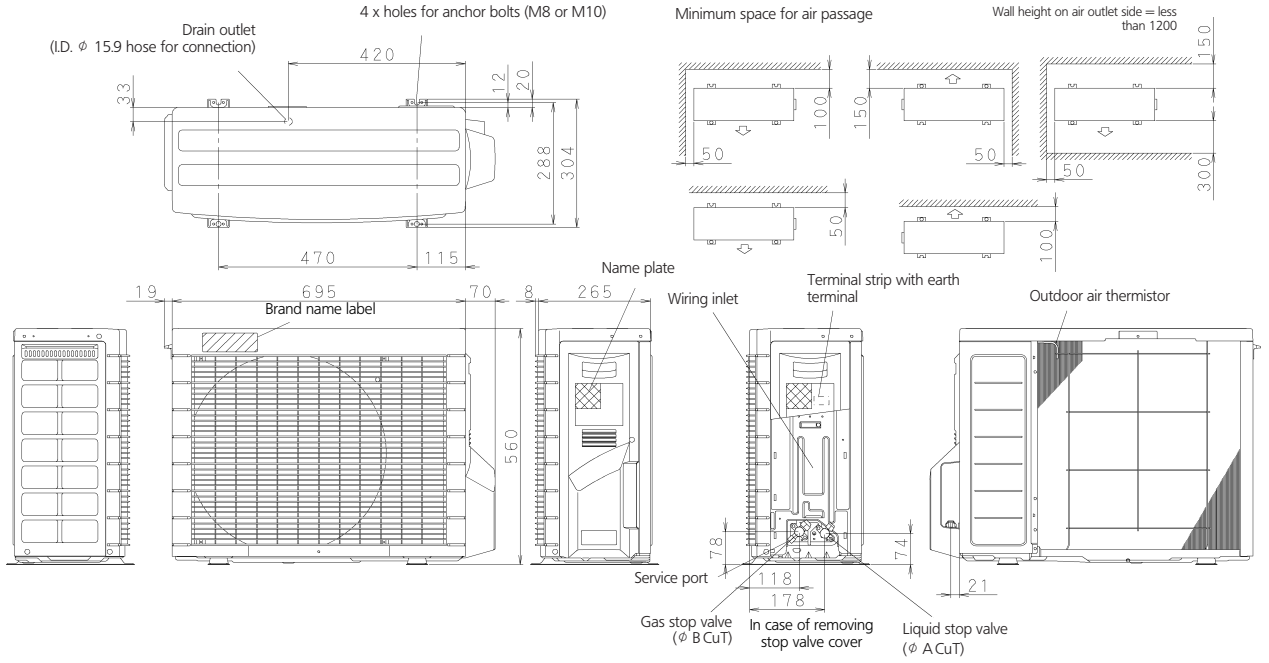
NOTES

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 the 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

RYS20,25,35B

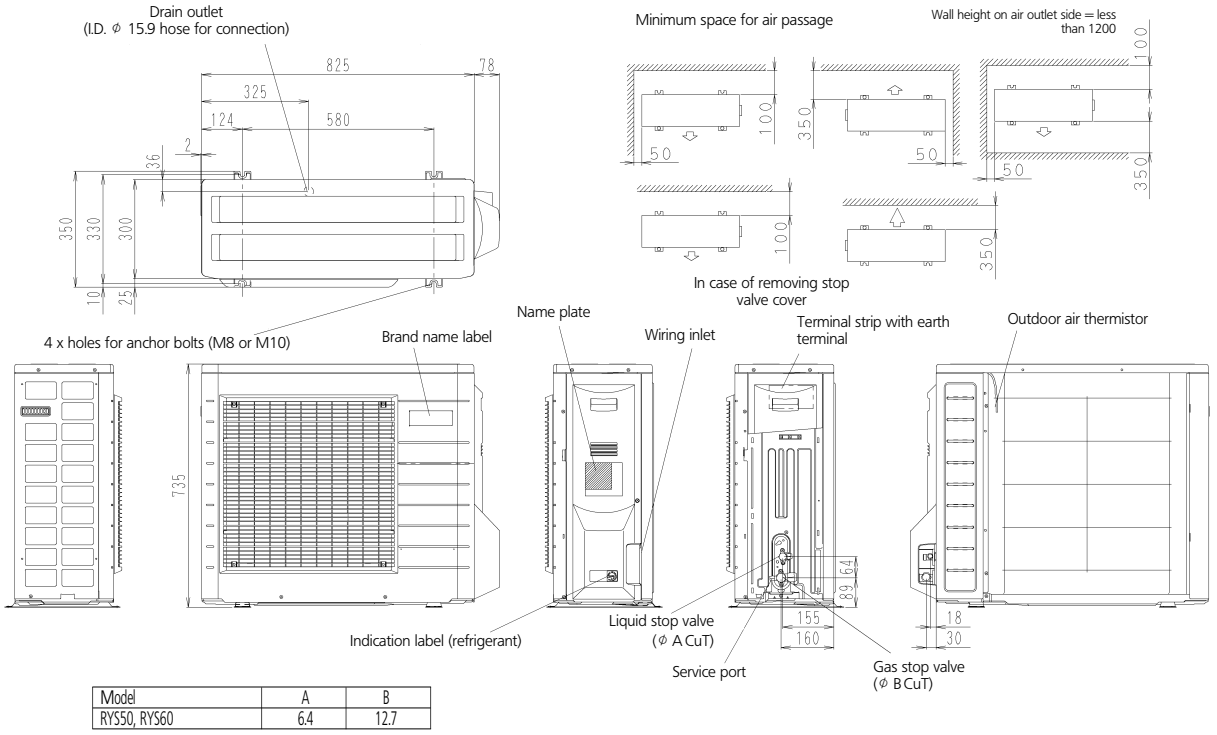
unit (mm)



3D038641A

RYS50,60B

unit (mm)



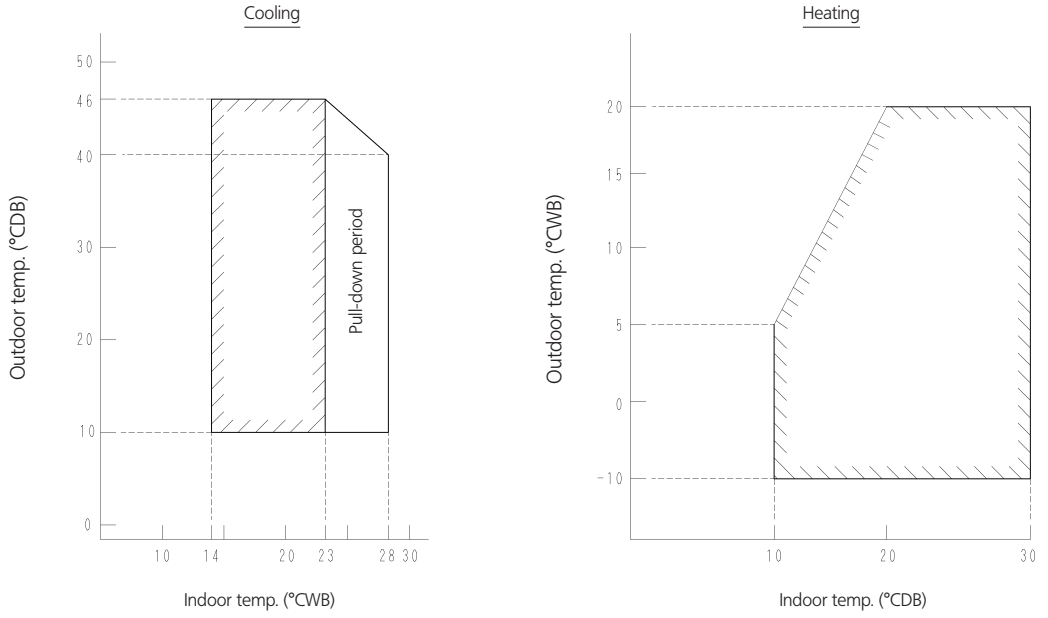
Model	A	B
RYS50, RYS60	6.4	12.7

3D034257B

5 Operation range

5

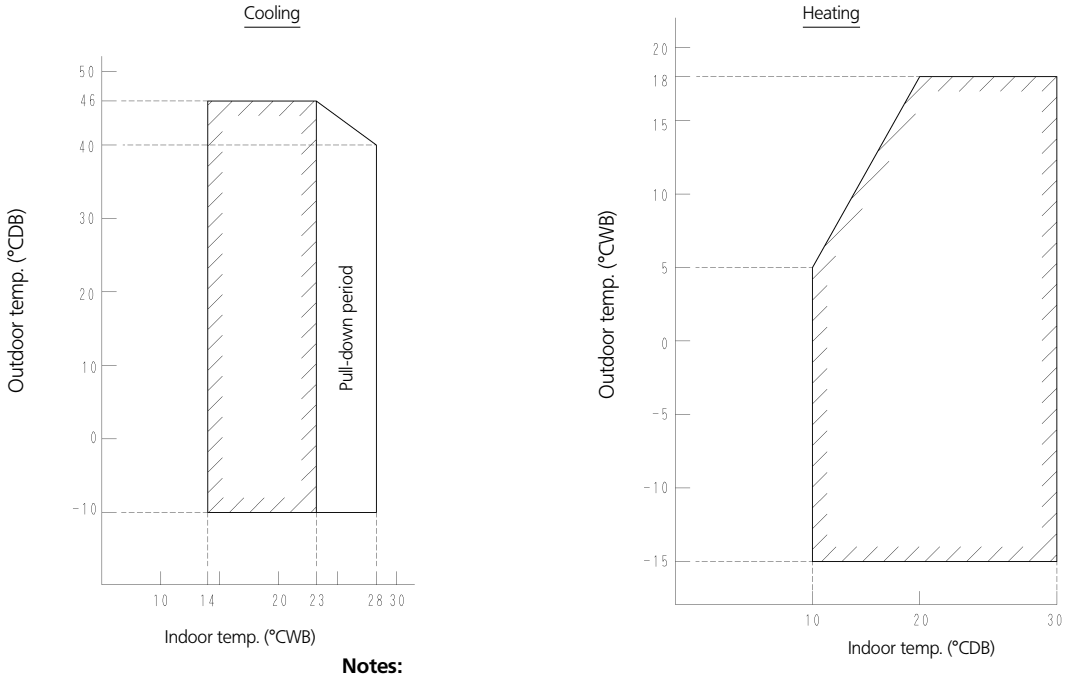
RYS20,25,35B



Notes:
The graphs are based on the following conditions:
- Equivalent piping length 7.5 m
- Level difference 0 m
- Air flow rate high

3D039535

RYS50,60B

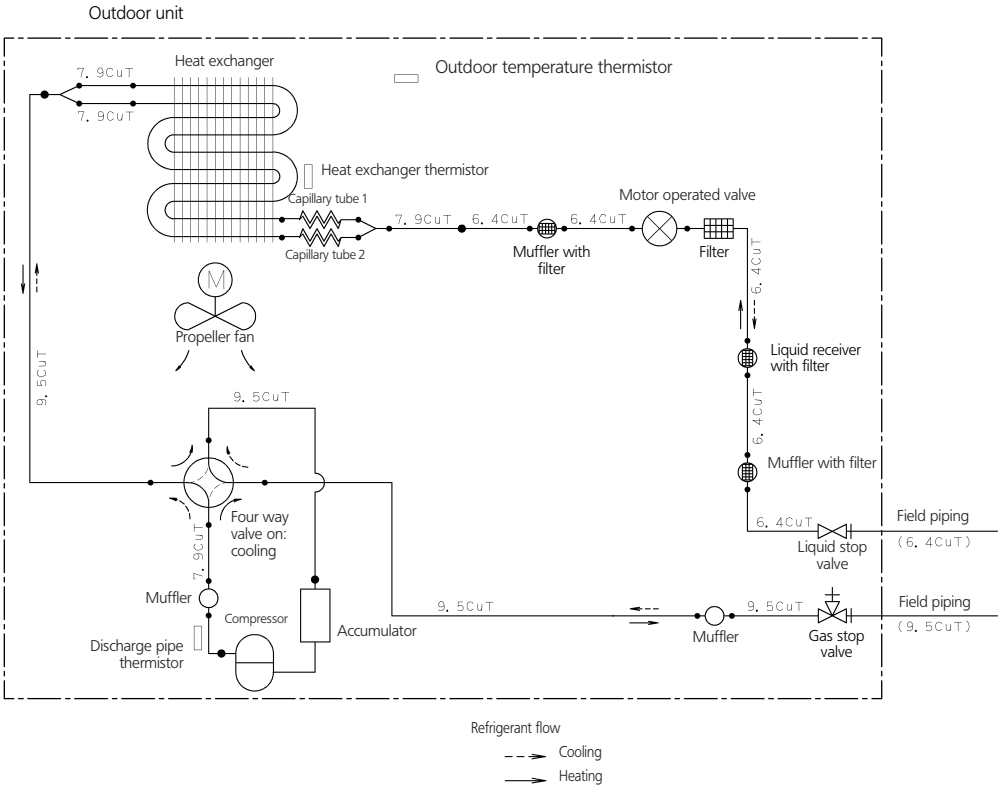


Notes:
The graphs are based on the following conditions:
- Equivalent piping length 7.5 m
- Level difference 0 m
- Air flow rate high

3D028318C

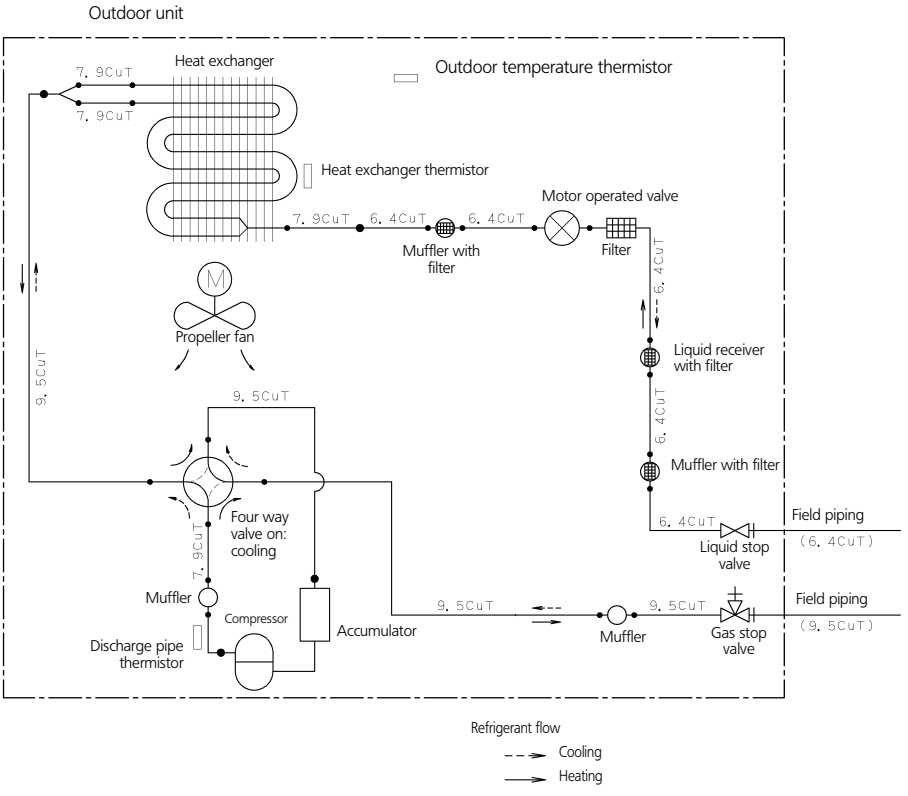
6 Piping diagrams

RYS20,25B



3D039301

RYS35

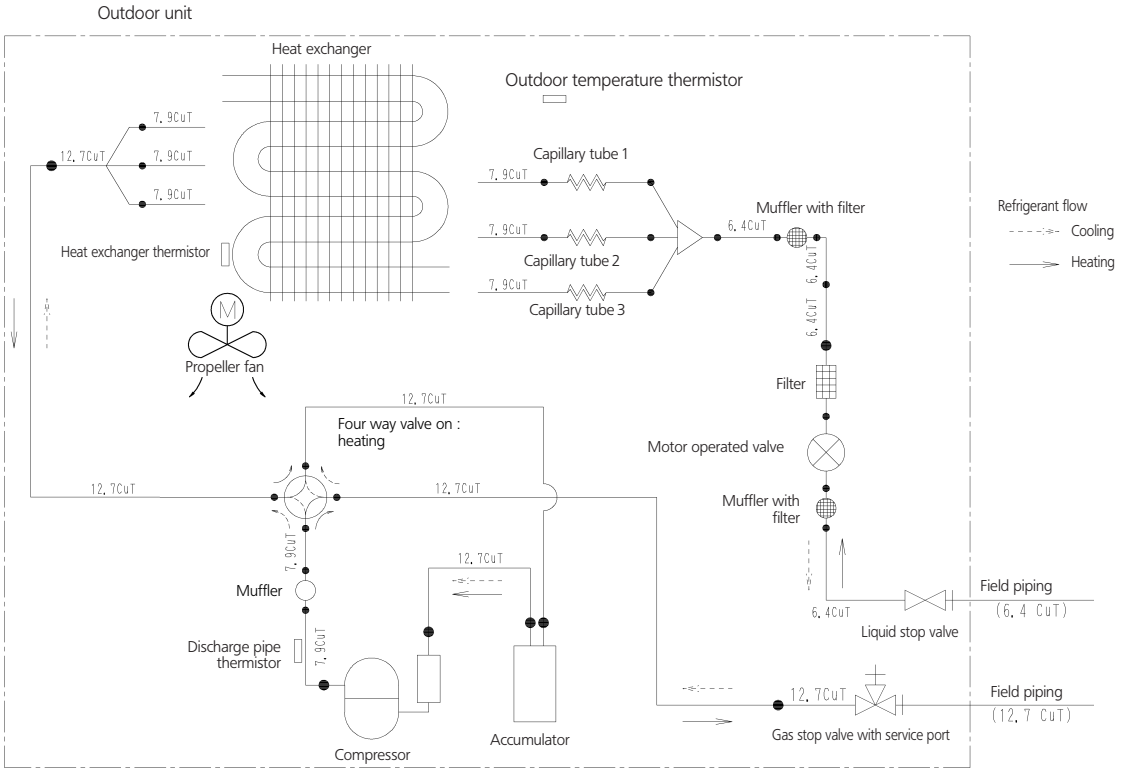


3D039302

6 Piping diagrams

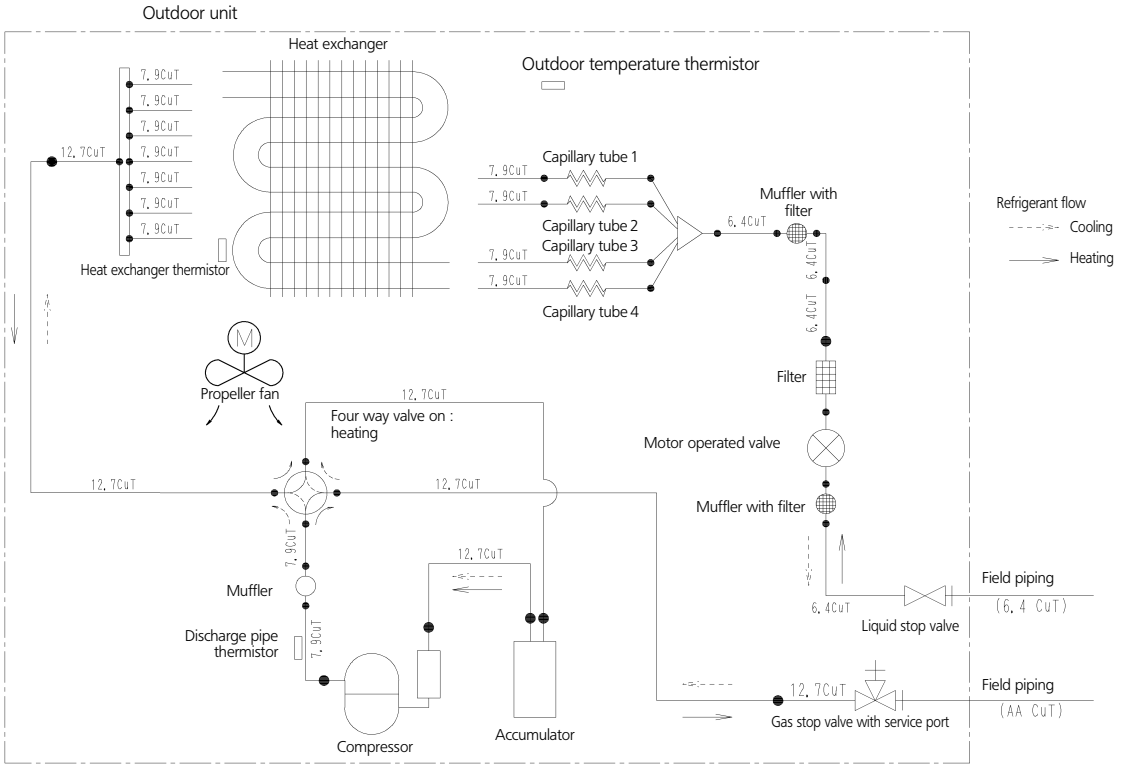
6

RYS50



3D034262C

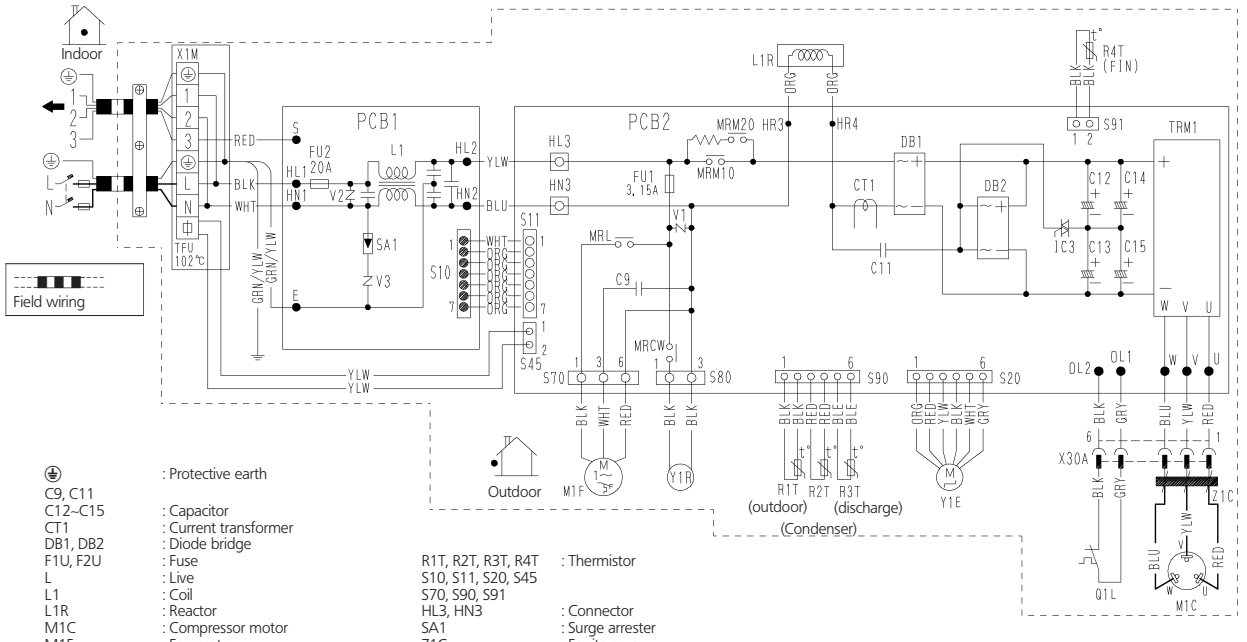
RYS60



3D034263C

7 Wiring diagrams

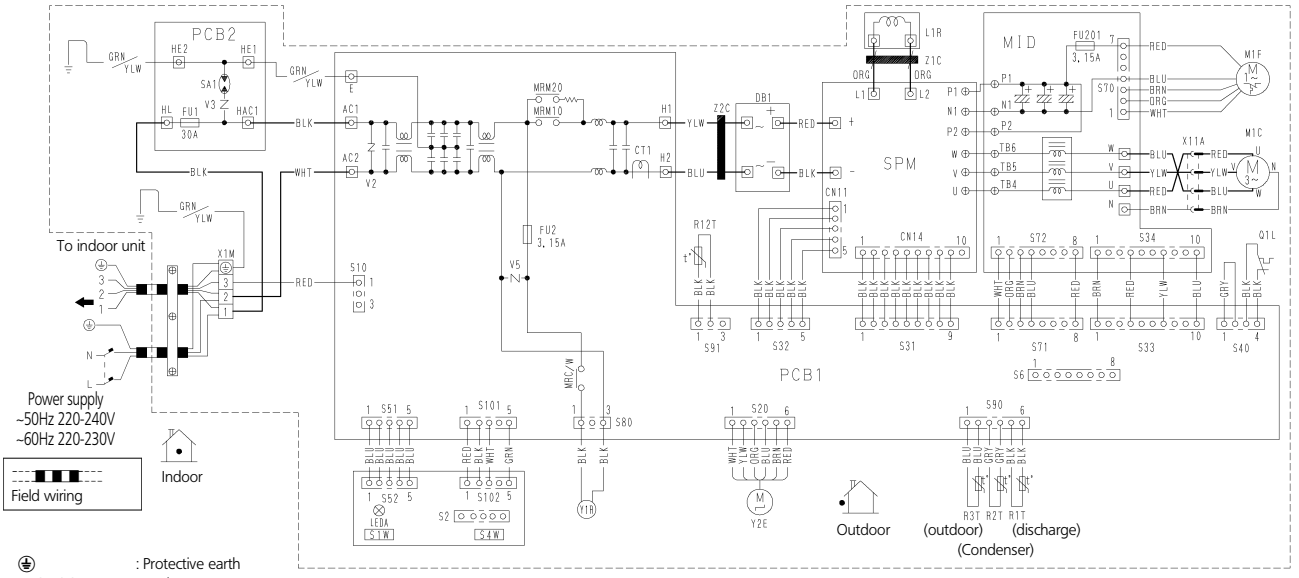
RYS20,25,35



⏚	: Protective earth		
C9, C11			
C12~C15	: Capacitor		
CT1	: Current transformer		
DB1, DB2	: Diode bridge		
F1U, F2U	: Fuse	R1T, R2T, R3T, R4T	: Thermistor
L	: Live	S10, S11, S20, S45	
L1	: Coil	S70, S90, S91	
L1R	: Reactor	HL3, HN3	: Connector
M1C	: Compressor motor	SA1	: Surge arrester
M1F	: Fan motor	Z1C	: Ferrite core
PCB1	: Printed circuit board	IC3	: Solid state relay
MRH, MRL,		TFU	: Thermal fuse
MRM10, MRM20	: Magnetic relay	TRM1	: Transistor module
N	: Neutral	V1, V2, V3	: Varistor
PCB2	: Printed circuit board	Y1E	: Electronic expansion valve coil
Q1L	: Overload protector	Y1R	: Reversing solenoide valve coil

3D038016B

RYS50,60



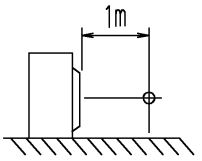
⏚	: Protective earth				
Z1C, Z2C	: Ferrite core				
X1M	: Terminal strip	S2~S102	: Connector		
Y2E	: Electronic expansion valve coil	LEDA	: Pilot lamp		
V2~V5	: Varistor	PCB1, PCB2	: Printed circuit board		
F1U, F2U, FU201	: Fuse	L	: Live		
HE1, HE2, HAC1,		N	: Neutral		
E, AC1, AC2		S1W	: Forced operation on/off switch	M1F	: Fan motor
H1, H2, HL		S4W	: Local setting	L1R	: Reactor
L1, L2, X11A	: Connector	SA1	: Surge arrester	Q1L	: Overload protector
MRM10, MRM20,		DB1	: Diode bridge	CT1	: Current transformer
MRC/W	: Magnetic relay	Y1R	: Reversing solenoide valve coil	MID	: Molded interconnect device
R1T~R3T	: Thermistor	M1C	: Compressor motor	SPM	: System power module

3D037854D

8 Sound level

8-1 Sound level data

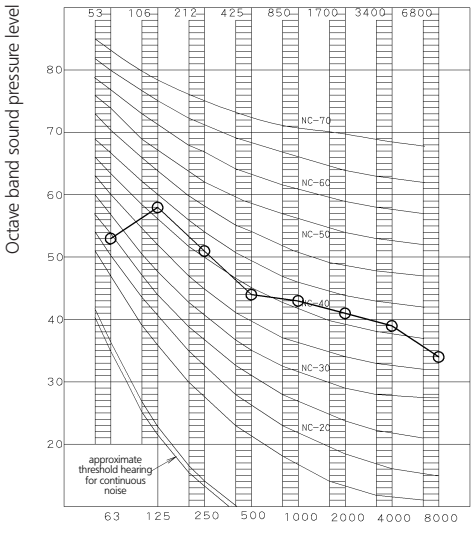
Cooling only:

Model	Sound pressure level		Sound power level (Cooling/Heating)
	230V, 50Hz	Measuring location	
	Cooling/Heating		
	H		
RYS20B	47/48		60/*
RYS25B	47/48		60/*
RYS35B	47/48		60/*
RYS50B	47/48		63/64
RYS60B	49/49		64/64

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

8-2 Sound pressure spectrum

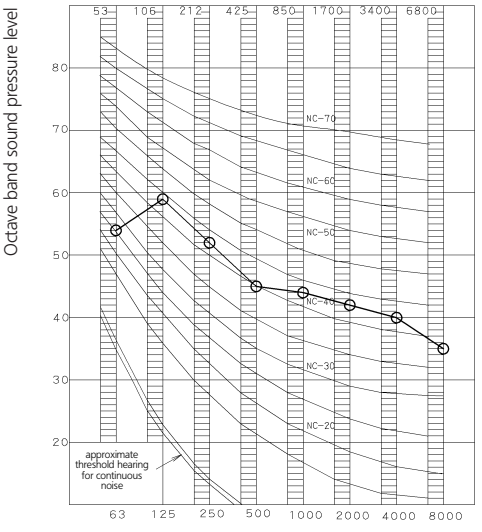
RYS20,25,35B (Cooling)



3D013516E

Octave band center frequency (Hz)

RYS20,25,35B (Heating)



3D013516E

Octave band center frequency (Hz)

Legend

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

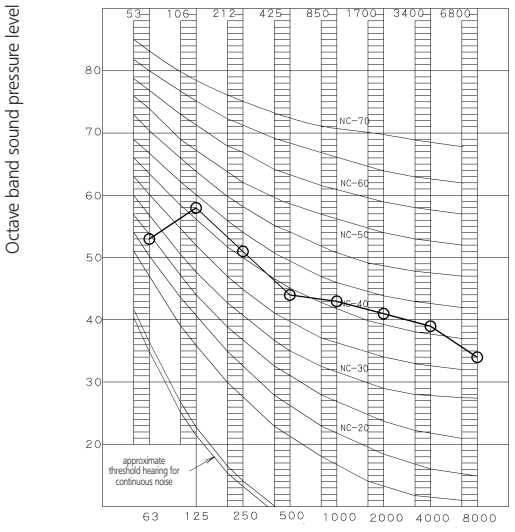
NOTES

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

8 Sound level

8-2 Sound pressure spectrum

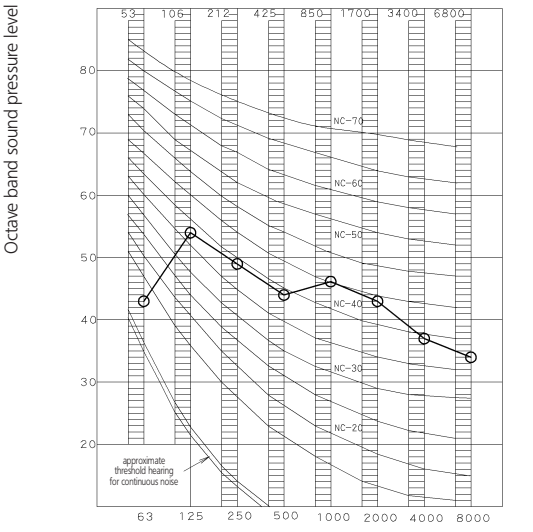
RYS50B (Cooling)



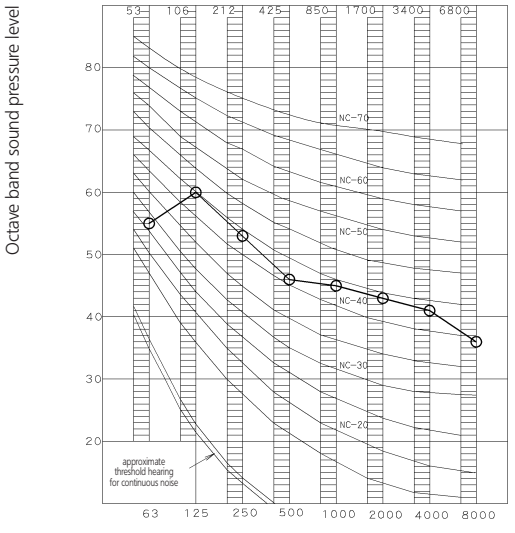
Legend

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

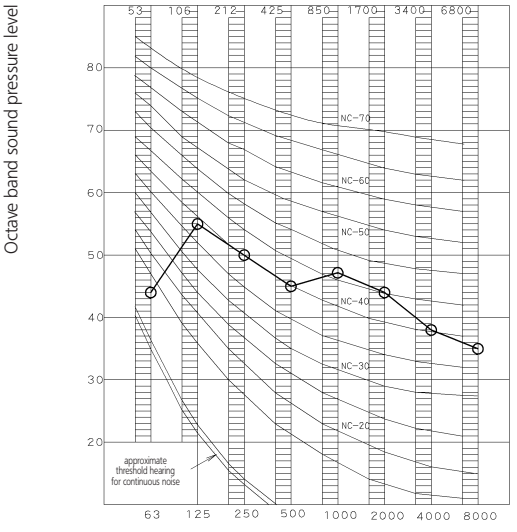
RYS50B (Heating)



RYS60B (Cooling)



RYS60B (Heating)



Legend

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

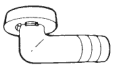
NOTES

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

9 Accessories

9-1 Standard accessories

RYS-B

Accessories supplied with the outdoor unit:			
(A) Installation manual	1	(B) Drain plug (Heat pump models)  There is on the bottom packing case.	1

9-2 Optional accessories

RYS-B

	RYS20BVMB	RYS25BVMB	RYS35BVMB	RYS50BVMB	RYS60BVMB
Air direction adjustment grille	KPW937A4		KPW945A4		

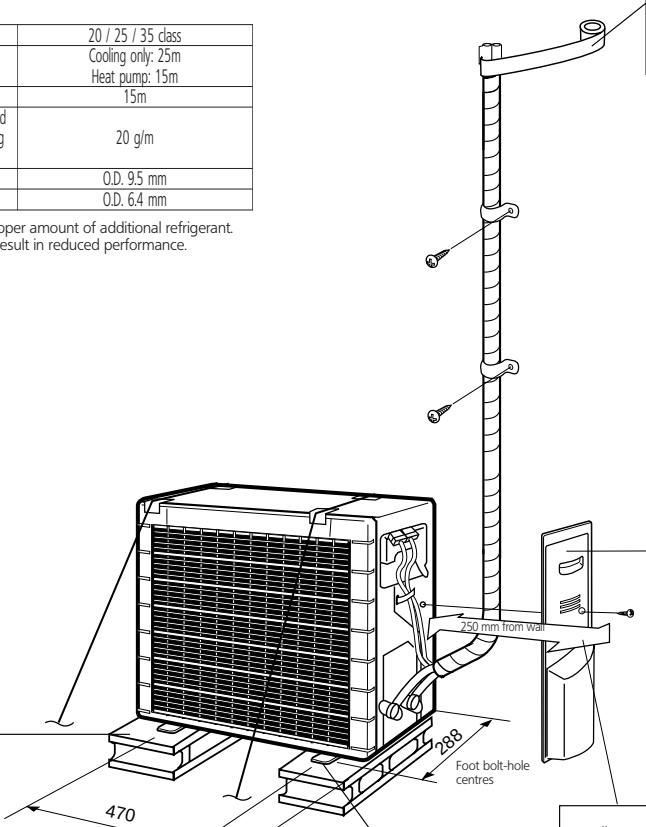
10 Installation

RYS20,25,35B

Outdoor unit installation drawings

Model	20 / 25 / 35 class
Max. allowable length	Cooling only: 25m Heat pump: 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.



10 Installation

RYS50,60B

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.