

technical data



RKS-D3VMB

**Pair Application,
Inverter Controlled Unit**

air conditioning systems

Split Sky Air

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RKS-D3VMB

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1 Features

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



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2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RKS20D3VMB	RKS25D3VMB	RKS35D3VMB
For combination indoor units + outdoor units	Indoor Units			FTKS20D3VMW	FTKS25D3VMW	FTKS35D3VMW
Capacity (Conditions specified in 1)	Cooling	Minimum	kW	1.3	1.30	1.4
		Standard	kW	2.0	2.50	3.4
		Maximum	kW	2.6	3.00	3.8
Nominal input	Cooling	Minimum	kW	0.30	0.30	0.30
		Standard	kW	0.49	0.685	1.045
		Maximum	kW	0.83	0.96	1.27
For combination indoor units + outdoor units	EER	Cooling		4.08	3.65	3.25
	Energy Labeling Directive	Cooling		A		
	Annual energy consumption		kWh	245	343	523
	Indoor Units			FTKS20D3VML	FTKS25D3VML	FTKS35D3VML
Capacity (Conditions specified in 1)	Cooling	Minimum	kW	1.3	1.30	1.4
		Standard	kW	2.0	2.50	3.4
		Maximum	kW	2.6	3.00	3.8
Nominal input	Cooling	Minimum	kW	0.30	0.30	0.30
		Standard	kW	0.49	0.685	1.045
		Maximum	kW	0.83	0.96	1.27
For combination indoor units + outdoor units	EER	Cooling		4.08	3.65	3.25
	Energy Labeling Directive	Cooling		A		
	Annual energy consumption		kWh	245	343	523
	Indoor Units				FLKS25BAVMB	FLKS35BAVMB
Capacity (Conditions specified in 1)	Cooling	Minimum	kW		1.30	1.40
		Standard	kW		2.50	3.50
		Maximum	kW		3.00	3.80
Nominal input	Cooling	Minimum	kW		0.30	0.30
		Standard	kW		0.78	1.16
		Maximum	kW		0.96	1.27
For combination indoor units + outdoor units	EER	Cooling			3.21	3.02
	Energy Labeling Directive	Cooling			A	B
	Annual energy consumption		kWh		390	580
	Indoor Units				FVKS25BAVMB	FVKS35BAVMB
Capacity (Conditions specified in 1)	Cooling	Standard	kW		2.50	3.50
Nominal input	Cooling	Standard	kW		0.70	1.09
For combination indoor units + outdoor units	EER	Cooling			3.57	3.21
	Energy Labeling Directive	Cooling			A	A
	Annual energy consumption		kWh		350	545
	Indoor Units				FDKS25EAVMB	FDKS35EAVMB
Capacity (Conditions specified in 1)	Cooling	Minimum	kW		1.30	1.40
		Standard	kW		2.40	3.40
		Maximum	kW		3.00	3.80
Nominal input	Cooling	Minimum	kW		0.30	0.30
		Standard	kW		0.845	1.30
		Maximum	kW		1.06	1.455
For combination indoor units + outdoor units	EER	Cooling			2.84	2.62
	Energy Labeling Directive	Cooling			C	D
	Annual energy consumption		kWh		423	650

2 Specifications

2-2 TECHNICAL SPECIFICATIONS				RKS20D3VMB	RKS25D3VMB	RKS35D3VMB
Casing	Colour			Ivory White		
Dimensions	Unit	Height	mm	550	550	550
		Width	mm	765	765	765
		Depth	mm	285	285	285
	Packing	Height	mm	589	589	589
		Width	mm	882	882	882
		Depth	mm	363	363	363
Weight	Unit		kg	30	30	32
	Packed Unit		kg	35	35	38
Heat Exchanger	Dimensions	Length	mm	828	828	805
		Nr of Rows		1	1	2
		Fin Pitch	mm	1.40	1.40	1.40
		Nr of Stages		24	24	24
	Tube type			Hi-Xa(7)		
	Fin	Type		Waffle fin		
		Treatment		Anti-corrosion treatment (PE)		
Fan	Type			Propeller		
	Quantity			1	1	1
	Air Flow Rate (nominal at 230V)	Cooling	m³/min	36.2	36.2	33.5
	Motor	Quantity		1	1	1
		Model		D23B-28		
Motor	Speed (nominal)	Cooling	rpm	860	860	860
Fan	Motor	Output	W	50	50	50
Compressor	Quantity			1	1	1
	Motor	Model		1YC23NXD#A		
		Type		Hermetically sealed swing compressor		
		Motor Output	W	600	600	600
Operation Range	Cooling	Min	°CDB	-10.0	-10.0	-10.0
		Max	°CDB	46.0	46.0	46.0
Sound Level (nominal)	Cooling	Sound Power	dBA	61.0	61.0	62.0
		Sound Pressure	dBA	46.0	46.0	47.0
Refrigerant	Type			R-410A		
	Charge		kg	0.8	0.8	1.0
Refrigerant Oil	Type			FVC50K		
	Charged Volume		l	0.375	0.375	0.375
Piping connections	Liquid (OD)	Diameter (OD)	mm	6.35		
	Gas	Diameter (OD)	mm	9.5		
	Drain	Diameter (OD)	mm	18	18	18
	Piping Length	Maximum	m	20	20	20
	Additional Refrigerant Charge		kg/m	0.02/>10		
	Max. internunit level difference		m	15.0	15.0	15.0
	Heat Insulation			Both liquid and gas pipes		
				Installation manual		
Standard Accessories	Item			1	1	1
	Quantity					
Notes				Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.		
				Sound levels are measured in an anechoic room		
				Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings of this chapter.		
				The sound power level is an absolute value indicating the power which a sound source generates.		

2 Specifications

2-3 ELECTRICAL SPECIFICATIONS				RKS20D3VMB	RKS25D3VMB	RKS35D3VMB
Power Supply	Name			VM		
	Phase			1		
	Frequency		Hz	50	50	50
	Voltage		V	230	230	230
	Voltage range	Minimum	V	-10%		
		Maximum	V	+10%		
Current	Nominal Running Current	Cooling (A)	A	2.54	3.64	4.62
	Starting current (cooling/heating)		A	2.7	3.8	4.8
Wiring connections	For Power Supply	Quantity		3	3	3
	For connection with indoor	Quantity		4	4	4
		Remark		included earth wiring		
Power Supply Intake				Outdoor unit only		

3 Electrical data

RKS20D-FTKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FTKS20DW FTKS20DL	RKS20D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	37	2.2	0.031	0.20	0.038	0.14

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books". Finally, click on the document title of your choice.

RKS25D-FTKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FTKS25DW FTKS25DL	RKS25D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	52	3.3	0.031	0.20	0.038	0.14

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books". Finally, click on the document title of your choice.

3 Electrical data

RKS25D-FV-LKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FVKS25B	RKS25D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	49	3.3	0.031	0.20	0.028	0.16
FLKS25B	RKS25D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	53	3.8	0.031	0.20	0.034	0.34

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books".
Finally, click on the document title of your choice.

RKS25,35D-FDKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FDKS25C	RKS25D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	54	4.1	0.037	0.17	0.062	0.60
FDKS35C	RKS35D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	90	5.5	0.037	0.17	0.062	0.60

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books".
Finally, click on the document title of your choice.

3 Electrical data

RKS35D-FTKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FTKS35DW FTKS35DL	RKS35D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	76	4.3	0.035	0.22	0.038	0.14

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books".
Finally, click on the document title of your choice.

RKS35D-FV-LKS

Unit combination		Power supply				Compressor		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FVKS35B	RKS35D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	78	4.5	0.035	0.22	0.028	0.16
FLKS35B	RKS35D	50-230	Max. 50Hz 253V Min. 50Hz 207V	12	16	81	4.8	0.035	0.22	0.034	0.38

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SYMBOLS

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

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://extranet.daikineurope.com>, select "E-Data Books".
Finally, click on the document title of your choice.

4 Capacity tables

4 - 1 Cooling capacity tables

RKS20D-FTKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.05	1.70	0.38	1.96	1.66	0.41	1.86	1.62	0.45	1.83	1.60	0.46	1.77	1.57	0.48	1.68	1.53	0.52
16.0	22.0	2.14	1.68	0.38	2.05	1.63	0.41	1.95	1.59	0.45	1.92	1.58	0.47	1.86	1.55	0.49	1.77	1.51	0.52
18.0	25.0	2.23	1.78	0.38	2.14	1.74	0.42	2.05	1.71	0.45	2.01	1.69	0.47	1.95	1.67	0.49	1.86	1.63	0.53
19.0	27.0	2.28	1.90	0.38	2.19	1.87	0.42	2.09	1.83	0.45	2.06	1.82	0.47	2.00	1.79	0.49	1.91	1.76	0.53
22.0	30.0	2.42	1.84	0.38	2.32	1.81	0.42	2.23	1.78	0.46	2.19	1.77	0.47	2.14	1.75	0.49	2.05	1.72	0.53
24.0	32.0	2.51	1.80	0.39	2.42	1.77	0.42	2.32	1.75	0.46	2.29	1.73	0.47	2.23	1.72	0.50	2.14	1.69	0.53

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.

$$SHC^* = \text{correction value of SHC matched with the differential of EDB and EDB1.}$$

$$= 0.02 \times AFR [m³/min.] \times (1-BF) \times (EDB1-EDB)$$
 The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 7.5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.7
BF	0.21

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4 Capacity tables

4 - 1 Cooling capacity tables

RKS25D-FTKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.56	1.93	0.53	2.44	1.87	0.58	2.33	1.82	0.63	2.28	1.79	0.65	2.21	1.76	0.68	2.10	1.70	0.73
16.0	22.0	2.68	1.90	0.53	2.56	1.84	0.58	2.44	1.79	0.63	2.40	1.77	0.65	2.33	1.74	0.68	2.21	1.69	0.73
18.0	25.0	2.79	1.99	0.53	2.68	1.94	0.58	2.56	1.89	0.63	2.51	1.87	0.65	2.44	1.84	0.68	2.33	1.80	0.73
19.0	27.0	2.85	2.11	0.53	2.73	2.06	0.58	2.62	2.01	0.63	2.57	1.99	0.65	2.50	1.96	0.69	2.38	1.92	0.74
22.0	30.0	3.02	2.03	0.54	2.91	1.99	0.59	2.79	1.95	0.64	2.74	1.93	0.66	2.67	1.91	0.69	2.56	1.86	0.74
24.0	32.0	3.14	1.98	0.54	3.02	1.94	0.59	2.90	1.90	0.64	2.86	1.89	0.66	2.79	1.86	0.69	2.67	1.83	0.74

SYMBOLS

AFR: Air flow rate [m³/min.]

BF: Bypass factor

EWB: Entering wet bulb temp. [°CWB]

EDB: Entering dry bulb temp. [°CDB]

TC: Total capacity cooling [kW]

SHC: Sensible heat capacity [kW]

PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.
SHC*
= correction value of SHC matched with the differential of EDB and EDB1.
= 0.02 x AFR [m³/min.] x (1-BF) x (EDB1-EDB)
The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
Corresponding refrigerant piping length: 7.5m
Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.7
BF	0.24

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4 Capacity tables

4 - 1 Cooling capacity tables

RKS25D-FLKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.52	1.77	0.59	2.44	1.73	0.66	2.33	1.67	0.71	2.28	1.65	0.74	2.21	1.61	0.77	2.10	1.55	0.83
16.0	22.0	2.68	1.76	0.60	2.56	1.71	0.66	2.44	1.65	0.72	2.40	1.63	0.74	2.33	1.59	0.77	2.21	1.54	0.83
18.0	25.0	2.79	1.83	0.61	2.68	1.78	0.66	2.56	1.72	0.72	2.51	1.70	0.74	2.44	1.67	0.78	2.33	1.62	0.84
19.0	27.0	2.85	1.91	0.61	2.73	1.86	0.66	2.62	1.81	0.72	2.57	1.79	0.75	2.50	1.76	0.78	2.38	1.71	0.84
22.0	30.0	3.02	1.84	0.61	2.91	1.79	0.67	2.79	1.75	0.73	2.74	1.73	0.75	2.67	1.70	0.79	2.56	1.66	0.84
24.0	32.0	3.14	1.79	0.62	3.02	1.74	0.67	2.90	1.70	0.73	2.86	1.68	0.75	2.79	1.66	0.79	2.67	1.62	0.85

SYMBOLS

AFR: Air flow rate [m³/min.]

BF: Bypass factor

EWB: Entering wet bulb temp. [°CWB]

EDB: Entering dry bulb temp. [°CDB]

TC: Total capacity cooling [kW]

SHC: Sensible heat capacity [kW]

PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.
SHC*
= correction value of SHC matched with the differential of EDB and EDB1.
= 0.02 x AFR [m³/min.] x (1-BF) x (EDB1-EDB)
The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
Corresponding refrigerant piping length: 7.5m
Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	7.6
BF	0.32

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4 Capacity tables

4 - 1 Cooling capacity tables

RKS25D-FVKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.56	1.85	0.53	2.44	1.79	0.58	2.33	1.73	0.64	2.28	1.70	0.66	2.21	1.67	0.69	2.10	1.61	0.74
16.0	22.0	2.68	1.81	0.54	2.56	1.76	0.59	2.44	1.70	0.64	2.40	1.68	0.66	2.33	1.65	0.69	2.21	1.59	0.74
18.0	25.0	2.79	1.89	0.54	2.68	1.84	0.59	2.56	1.79	0.64	2.51	1.77	0.66	2.44	1.74	0.69	2.33	1.68	0.74
19.0	27.0	2.85	1.99	0.54	2.73	1.93	0.59	2.62	1.88	0.64	2.57	1.87	0.66	2.50	1.84	0.70	2.38	1.79	0.75
22.0	30.0	3.02	1.91	0.55	2.91	1.87	0.60	2.79	1.82	0.65	2.74	1.81	0.67	2.67	1.78	0.70	2.56	1.74	0.75
24.0	32.0	3.14	1.86	0.55	3.02	1.82	0.60	2.90	1.78	0.65	2.86	1.76	0.67	2.79	1.74	0.70	2.67	1.70	0.75

SYMBOLS

AFR: Air flow rate [m³/min.]

BF: Bypass factor

EWB: Entering wet bulb temp. [°CWB]

EDB: Entering dry bulb temp. [°CDB]

TC: Total capacity cooling [kW]

SHC: Sensible heat capacity [kW]

PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- | |
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 shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.
SHC*
= correction value of SHC matched with the differential of EDB and EDB1.
= 0.02 x AFR [m³/min.] x (1-BF) x (EDB1-EDB)
The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
Corresponding refrigerant piping length: 7.5m
Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.1
BF	0.29

3D048347

4 Capacity tables

4 - 1 Cooling capacity tables

RKS25D-FDKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.46	1.87	0.65	2.35	1.81	0.71	2.24	1.76	0.77	2.19	1.74	0.80	2.12	1.71	0.84	2.01	1.65	0.90
16.0	22.0	2.57	1.84	0.65	2.46	1.79	0.71	2.35	1.73	0.78	2.30	1.71	0.80	2.23	1.68	0.84	2.12	1.63	0.90
18.0	25.0	2.68	1.93	0.66	2.57	1.88	0.72	2.46	1.84	0.78	2.41	1.82	0.81	2.34	1.79	0.84	2.23	1.74	0.91
19.0	27.0	2.74	2.04	0.66	2.62	2.00	0.72	2.51	1.95	0.78	2.47	1.93	0.81	2.40	1.81	0.85	2.29	1.86	0.91
22.0	30.0	2.90	1.97	0.66	2.79	1.93	0.73	2.68	1.89	0.79	2.63	1.88	0.81	2.57	1.85	0.85	2.45	1.81	0.91
24.0	32.0	3.01	1.92	0.67	2.90	1.89	0.73	2.79	1.85	0.79	2.74	1.83	0.82	2.68	1.81	0.85	2.56	1.78	0.92

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.

$$SHC^* = SHC \text{ correction for other dry bulb.}$$

$$= 0.02 * AFR (m^3/min.) * (1 - BF) * (DB^* - EDB)$$
 Add SHC* to SHC.
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.4
BF	0.221

3D048801

4 Capacity tables

4 - 1 Cooling capacity tables

RKS35D-FTKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.31	2.33	0.80	3.31	2.33	0.88	3.17	2.25	0.96	3.10	2.22	0.99	3.01	2.17	1.03	2.85	2.09	1.11
16.0	22.0	3.64	2.38	0.81	3.48	2.30	0.88	3.32	2.22	0.96	3.26	2.19	0.99	3.17	2.14	1.04	3.01	2.07	1.12
18.0	25.0	3.80	2.47	0.81	3.64	2.39	0.89	3.48	2.32	0.97	3.42	2.29	1.00	3.32	2.24	1.04	3.16	2.17	1.12
19.0	27.0	3.87	2.57	0.81	3.72	2.50	0.89	3.56	2.43	0.97	3.49	2.40	1.00	3.40	2.36	1.05	3.24	2.29	1.12
22.0	30.0	4.11	2.47	0.82	3.95	2.41	0.90	3.79	2.35	0.97	3.73	2.32	1.01	3.63	2.28	1.05	3.48	2.22	1.13
24.0	32.0	4.27	2.40	0.82	4.11	2.34	0.90	3.95	2.28	0.98	3.89	2.26	1.01	3.79	2.23	1.06	3.63	2.17	1.13

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- | |
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 shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.
 SHC*
 = correction value of SHC matched with the differential of EDB and EDB1.
 = 0.02 x AFR [m³/min.] x (1-BF) x (EDB1-EDB)
 The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 7.5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.9
BF	0.24

3D048109

4 Capacity tables

4 - 1 Cooling capacity tables

RKS35D-FLKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.72	1.92	0.89	2.72	1.92	0.98	2.72	1.92	1.06	2.72	1.92	1.10	2.72	1.92	1.15	2.72	1.92	1.23
16.0	22.0	3.34	2.14	0.90	3.34	2.14	0.98	3.34	2.14	1.07	3.34	2.14	1.10	3.26	2.10	1.15	3.10	2.01	1.24
18.0	25.0	3.91	2.42	0.90	3.75	2.34	0.99	3.58	2.26	1.07	3.52	2.22	1.11	3.42	2.17	1.16	3.26	2.09	1.24
19.0	27.0	3.99	2.51	0.90	3.83	2.43	0.99	3.66	2.34	1.07	3.60	2.31	1.11	3.50	2.27	1.16	3.34	2.19	1.25
22.0	30.0	4.23	2.40	0.91	4.07	2.33	1.00	3.90	2.26	1.08	3.84	2.23	1.12	3.74	2.19	1.17	3.58	2.12	1.25
24.0	32.0	4.39	2.32	0.92	4.23	2.26	1.00	4.07	2.19	1.09	4.00	2.16	1.12	3.90	2.13	1.17	3.74	2.06	1.26

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.

$$SHC^* = \text{correction value of SHC matched with the differential of EDB and EDB1.}$$

$$= 0.02 \times AFR [m³/min.] \times (1-BF) \times (EDB1-EDB)$$
 The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 7.5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI
	Cooling
AFR	8.6
BF	0.35

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4 Capacity tables

4 - 1 Cooling capacity tables

RKS35D-FVKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.52	2.48	0.84	3.42	2.43	0.92	3.26	2.34	1.00	3.19	2.31	1.03	3.10	2.26	1.08	2.93	2.17	1.16
16.0	22.0	3.75	2.47	0.84	3.58	2.39	0.92	3.42	2.31	1.00	3.36	2.27	1.03	3.26	2.23	1.08	3.10	2.15	1.16
18.0	25.0	3.91	2.56	0.85	3.75	2.48	0.93	3.58	2.41	1.01	3.52	2.38	1.04	3.42	2.34	1.09	3.26	2.26	1.17
19.0	27.0	3.99	2.68	0.85	3.83	2.60	0.93	3.66	2.53	1.01	3.60	2.50	1.04	3.50	2.46	1.09	3.34	2.39	1.17
22.0	30.0	4.23	2.57	0.86	4.07	2.51	0.94	3.90	2.44	1.02	3.84	2.42	1.05	3.74	2.38	1.10	3.58	2.32	1.18
24.0	32.0	4.39	2.50	0.86	4.23	2.44	0.94	4.07	2.38	1.02	4.00	2.36	1.05	3.90	2.32	1.10	3.74	2.26	1.18

Heating capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)									
EDB (°C)	TC	-10		-5		0		6		10	
		PI	TC	PI	TC	PI	TC	PI	TC	PI	TC
15.0	3.03	1.12	3.54	1.17	4.05	1.23	4.66	1.29	5.06	1.33	
20.0	2.87	1.15	3.38	1.20	3.89	1.25	4.50	1.32	4.91	1.36	
22.0	2.81	1.16	3.32	1.21	3.83	1.27	4.44	1.33	4.84	1.38	
24.0	2.75	1.17	3.26	1.22	3.77	1.28	4.38	1.34	4.78	1.39	
25.0	2.72	1.18	3.23	1.23	3.73	1.28	4.34	1.35	4.75	1.39	
27.0	2.66	1.19	3.16	1.24	3.67	1.30	4.28	1.36	4.69	1.41	

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.
 SHC*
 = correction value of SHC matched with the differential of EDB and EDB1.
 = 0.02 x AFR [m³/min.] x (1-BF) x (EDB1-EDB)
 The calculation value of SHC1 = SHC + SHC*
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 7.5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

	FI	
	Cooling	Heating
AFR	8.3	9.2
BF	0.13	

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4 Capacity tables

4 - 1 Cooling capacity tables

RKS35D-FDKS

Cooling capacity (50 Hz, 230 V)

Indoor		Outdoor temperature (°CDB)																	
EWB (°C)	EDB (°C)	20			25			30			32			35			40		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.22	2.27	1.00	3.22	2.27	1.09	3.17	2.24	1.19	3.10	2.21	1.23	3.01	2.16	1.29	2.85	2.07	1.38
16.0	22.0	3.64	2.37	1.00	3.48	2.29	1.10	3.32	2.21	1.20	3.26	2.18	1.23	3.17	2.13	1.29	3.01	2.05	1.39
18.0	25.0	3.80	2.45	1.01	3.64	2.37	1.10	3.48	2.30	1.20	3.42	2.27	1.24	3.32	2.23	1.30	3.16	2.15	1.39
19.0	27.0	3.87	2.55	1.01	3.72	2.48	1.11	3.56	2.41	1.20	3.49	2.38	1.24	3.40	2.34	1.30	3.24	2.27	1.40
22.0	30.0	4.11	2.45	1.02	3.95	2.39	1.12	3.79	2.32	1.21	3.73	2.30	1.25	3.63	2.26	1.31	3.48	2.20	1.40
24.0	32.0	4.27	2.38	1.03	4.11	2.32	1.12	3.95	2.26	1.22	3.89	2.24	1.26	3.79	2.20	1.31	3.63	2.15	1.41

SYMBOLS

AFR: Air flow rate [m³/min.]
 BF: Bypass factor
 EWB: Entering wet bulb temp. [°CWB]
 EDB: Entering dry bulb temp. [°CDB]
 TC: Total capacity cooling [kW]
 SHC: Sensible heat capacity [kW]
 PI: Power input [kW]

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
-  shows nominal (rated) capacities and power input.
- 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).
- SHC is based on each EWB and EDB.
 SHC1 for any indoor dry-bulb temperatures (EDB1) shall be calculated by the following formula.

$$SHC^* = SHC \text{ correction for other dry bulb.}$$

$$= 0.02 * AFR (m^3/min.) * (1 - BF) * (DB^* - EDB)$$
 Add SHC* to SHC.
- Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 5m
 Level difference: 0m
- Air flow rate (AFR) and Bypass factor (BF) are tabulated below.

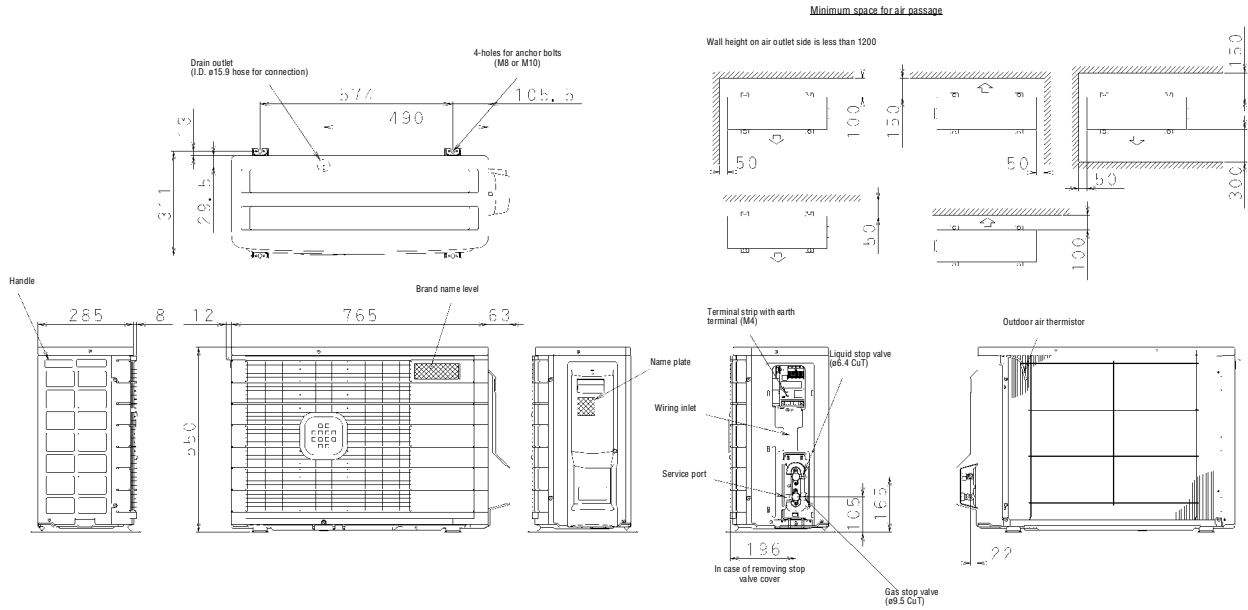
	FI
	Cooling
AFR	8.9
BF	0.257

3D048797

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

RKS-D

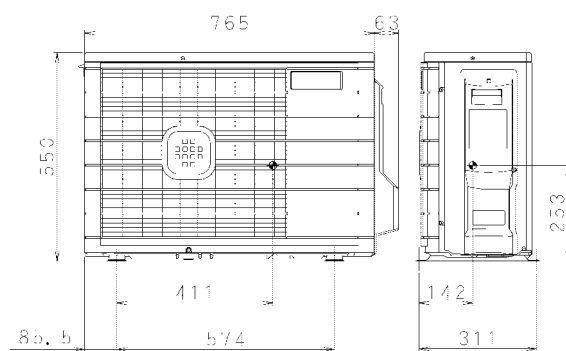


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5 Dimensional drawing & centre of gravity

5 - 2 Centre of gravity

RKS-D

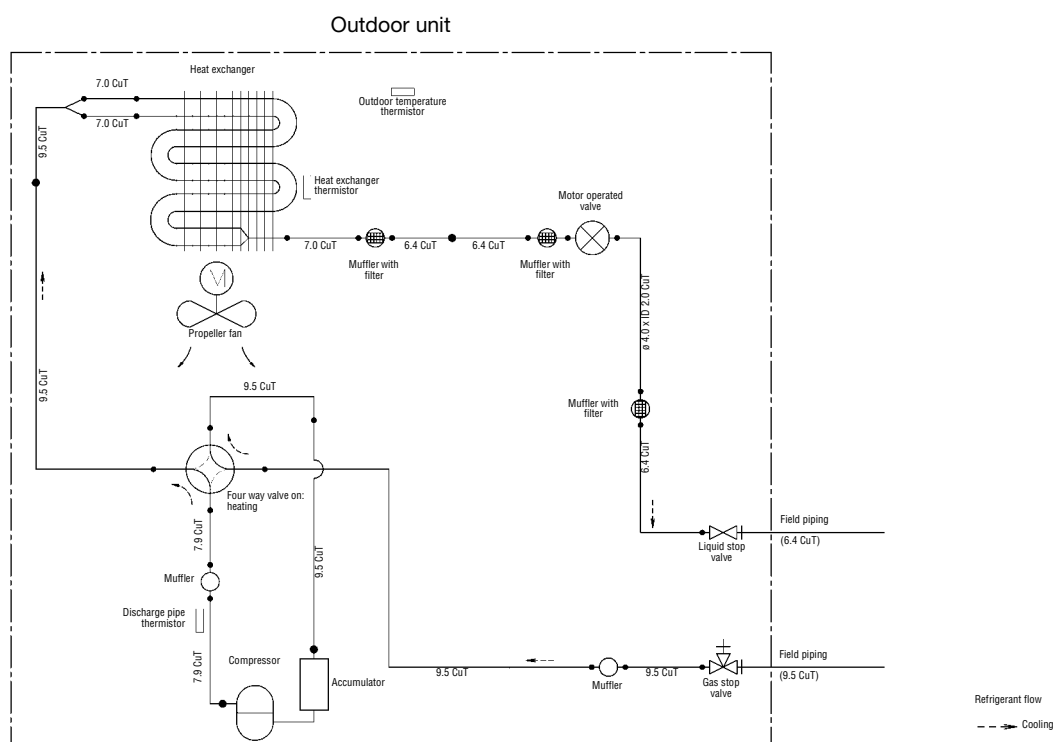


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6 Piping diagram

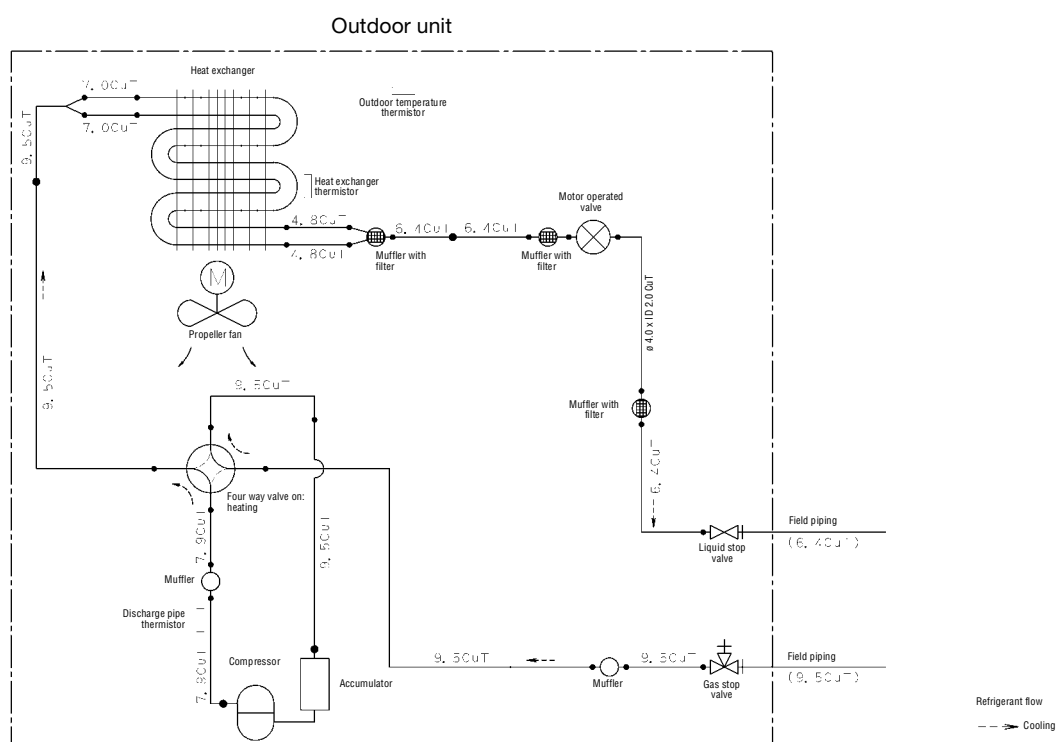
6

RKS20,25D



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RKS35D

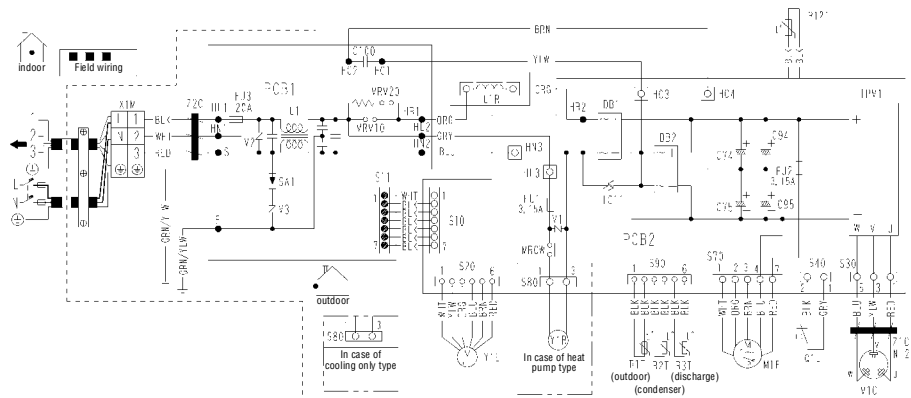


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7 Wiring diagram

7 - 1 Wiring diagram

RKS-D



NOTES

- 1 Size: length 105 x width 185.
- 2 Refer to purchasing specification AS(Y)303002, unless otherwise specified.
- 3 This drawing was drawn on CAD system.
- 4 Refer to the nameplate for the power requirements.

7

LEGEND

	Protective earth	L1R	Reactor	Connector
C74, C75, C94, C95, C100	Capacitor	M1C	Compressor motor	Surge arrester
DB1, DB2	Diode bridge	M1F	Fan motor	Varistor
FU1, FU2, FU3	Fuse	MRCW, MRM10, MRM20	Magnetic relay	Terminal strip
IC11	Triac	N	Neutral	Electronic expansion valve coil
IPM1	Intelligent power module	PCB1, PCB2	Printed circuit board	Reversing solenoid valve coil
L	Live	Q1L	Overload protector	Ferrite core
L1	Coil	R1T, R2T, R3T, R12T	Thermistor	
		S10, S11, S20, S30, S40, S70, S80, S90, S91, HC3, HC4, HL3, HN3		

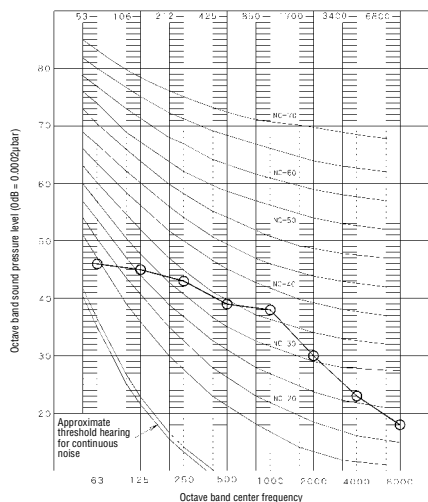
3D046707A

8 Sound data

8 - 1 Sound pressure spectrum

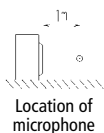
8

RKS20,25D



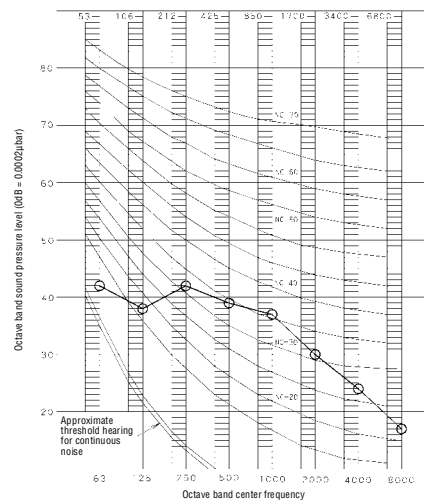
NOTES

- 1 Measurement was taken in an anechoic room.
- 2 The operation noise measuring method is in accordance with JISC9612.
- 3 Operating conditions:
Power source = 220-240 V, 50/60 Hz
o-----o H (A = 46)
- 4 Operation noise differs with operation and ambient conditions.



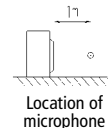
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RKS35D



NOTES

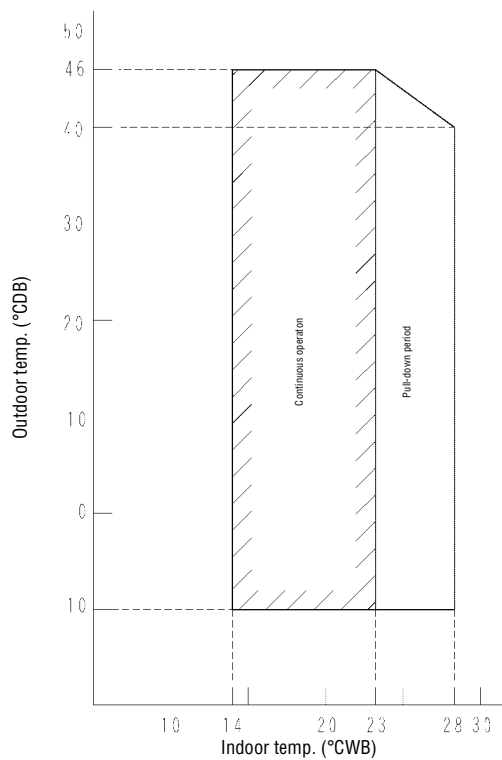
- 1 Measurement was taken in an anechoic room.
- 2 The operation noise measuring method is in accordance with JISC9612.
- 3 Operating conditions:
Power source = 220-240 V, 50/60 Hz
o-----o H (A = 47)
- 4 Operation noise differs with operation and ambient conditions.



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9 Operation range

RKS-D



NOTES

The graphs are based on the following conditions:

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

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9 Operation range

Split - Sky Air

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